Australian Government
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AIHW

Northern Territory Remote Aboriginal Investment: Oral Health Program

July 2012 to December 2016

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Please note that there is the potential for minor revisions of data in this report. Please check the online version at <www.aihw.gov.au/> for any amendments.

Contents

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Abbreviations

AIHW	Australian Institute of Health and Welfare
CDHS	Child Dental Health Survey
CHCI(CtG)	Child Health Check Initiative/Closing the Gap program
dmft	decayed, missing or filled deciduous teeth
DMFT	decayed, missing or filled permanent teeth
FV	fluoride varnish
NACDH	National Advisory Council on Dental Health
NTER	Northern Territory National Emergency Response
NTRAI OHP	Northern Territory Remote Aboriginal Investment Oral Health Program
SFNT OHP	Stronger Futures in the Northern Territory Oral Health Program
SiC	Significant Caries Index

Summary

This report presents information on oral health services provided to Aboriginal and Torres Strait Islander children in the Northern Territory. For the past 10 years, the Australian Government has contributed to the funding of oral health services for Aboriginal and Torres Strait Islander children under the age of 16 in the Northern Territory.

Service delivery

There are 2 major components of the Northern Territory Remote Aboriginal Investment Oral Health Program (NTRAI OHP): preventive and clinical services.

Preventive services include the application of full-mouth fluoride varnish (FV) and fissure sealants, which are highly effective in preventing tooth decay. In 2016, 4,502 Indigenous children received full-mouth FV services at 5,263 occasions of service, and 2,019 Indigenous children received fissure sealant services at 2,153 occasions of service. Between July 2012 and December 2016, a total of 12,742 children received full-mouth FV services at 18,804 occasions of service, and 6,834 children received fissure sealant services at 8,630 occasions of service. Since July 2012, the number of children and services has generally increased over time.

Clinical services include tooth extractions, diagnostic services, restorative services and examinations. In 2016, 3,426 Indigenous children received 4,392 occasions of clinical service. Between July 2012 and December 2016, a total of 9,684 children received 17,259 occasions of clinical service. There was a drop in the number of children and services between 2013 and 2014, but the numbers have since been increasing.

Oral health status

Among children seen through the program, the experience of tooth decay varied with age. In 2016, children aged 6 had the highest percentage of tooth decay experience (90%), followed by children aged 9 (88%). Children aged 1–3 had the lowest percentage of tooth decay experience (45%), followed by children aged 12 (72%).

In the short term, there have been improvements in the oral health of younger service recipients. For example, between 2013 and 2016, the average amount of tooth decay in children aged 1–3 decreased by 19%, and decreased by 11% among 8 year olds.

In the longer term from March 2009 to December 2016, tooth decay experience decreased for younger ages (8 and below), but increased for older ages (9 and above). For example, the proportion of tooth decay among 8 year olds decreased from 93% to 81%, and the proportion among 11 year olds increased from 69% to 81%.

Progress against benchmarks

There is a range of targets as part of the Australian Government's funding to the Northern Territory. All service delivery targets in 2016 were met for fissure sealant applications, full-mouth FV applications and clinical services. Targets were also met for prioritising preventive services in 2016, as well as for the number of participants enrolled in the Healthy Smiles training program.

Despite improvements seen through the NTRAI OHP, Indigenous children still experience higher tooth decay compared with other Australian children. Higher tooth decay demonstrates the continued need for preventive services and oral health services in general.

About this report

This report presents information on oral health services provided to Aboriginal and Torres Strait Islander children under the age of 16 in the Northern Territory. The oral health services described in this report are funded by the Australian Government and delivered by the Northern Territory Government. This report is an update of the *Northern Territory Remote Aboriginal Investment: Oral Health Program July 2012 to June 2015* (AIHW 2017), which is part of the Australian Institute of Health and Welfare (AIHW) publication series reporting on the Northern Territory oral health services. This report also includes some long-term analyses from 2009 to 2016 to allow for an examination of the change in oral health experience over time.

In comparison with previous Oral Health Program reports from the AIHW, this version has been shortened. A set of comprehensive online tables accompanies this report to maintain the level of reporting found in previous oral health reports. All tables that have been included in previous oral health reports are available online. Throughout this report, you will find mentions of the online tables related to the figures presented.

Online tables are available at <https://www.aihw.gov.au/reports/indigenous-health-welfare-services/nt-oral-health-program-2012-to-2016/data>.

1 Introduction

Oral health plays a vital role in a person's overall health and can impact quality of life. Good oral health allows for the ability to socialise and speak without pain, disease, discomfort or embarrassment. Good oral health can even prevent children from experiencing social marginalisation and embarrassment associated with oral diseases and their consequences (NACDH 2012). Oral health revolves around the health of the tissues in the mouth—bones, gums, muscles and teeth—with the most common oral diseases affecting the gums (periodontal disease) and teeth (tooth decay). Poor oral health has been linked to a number of chronic conditions (Figure 1.1).

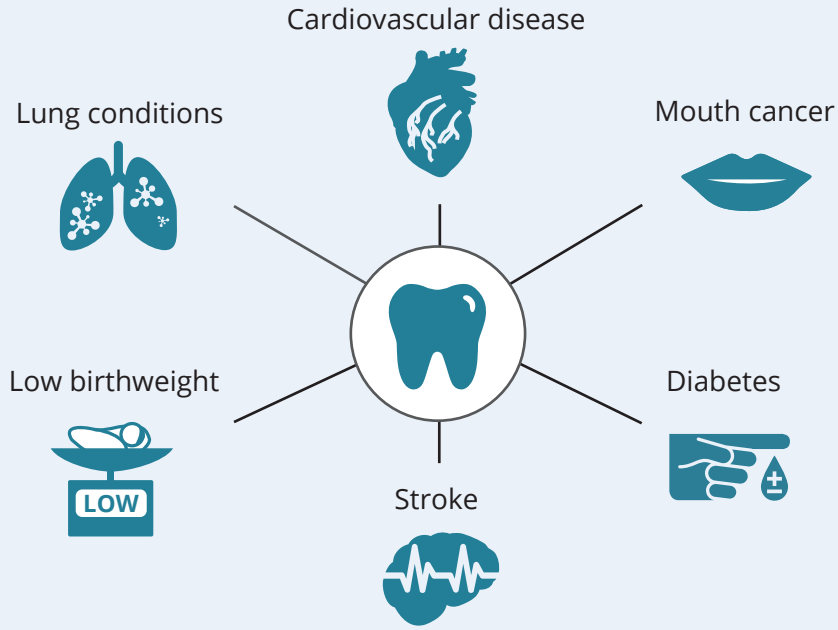


Figure 1.1: Links between oral health and chronic diseases

Poor oral health can affect adults and children alike, but poor oral health in children can have long-term negative effects that carry through to adulthood. As such, encouraging and maintaining good childhood oral health habits, and having access to oral health services is important for the prevention of dental disease (NACDH 2012).

Among Australian children, oral diseases accounted for 7.8%, 4.2% and 3.3% of the non-fatal burden of disease among those aged 5–9, 10–14 and 15–19, respectively. Almost all (97%) of this non-fatal burden of disease is attributed to tooth decay (AIHW 2016). Indigenous Australians are less likely to receive preventive dental care, and have a higher likelihood of having untreated dental disease or having oral health hospitalisations (Jamieson et al. 2010; Kruger & Tennant 2015).

Oral health in the Northern Territory

The proportion of Aboriginal and Torres Strait Islander people in the Northern Territory is 25%, and is the highest proportion compared with other states and territories (ABS 2017). Additionally, children in the Northern Territory have higher levels of tooth decay compared with other states and territories (AIHW 2013), and Indigenous children experience twice as much tooth decay as non-Indigenous children (AIHW 2017). There are a variety of factors that contribute to the poorer oral health of Indigenous children in general, including in the Northern Territory:

- poverty and social disadvantage
- diet, specifically the consumption of processed sugary foods and drinks
- lower use of fluoridated toothpaste and lack of fluoridated water
- limited or no access to dental services, especially in rural and remote areas.

Australian Government oral health programs in the Northern Territory

The Oral Health Program in the Northern Territory funded by the Australian Government is designed to enhance existing public dental services and is implemented by the Northern Territory Government. Funded activities aim to decrease the prevalence, incidence, severity and impact of oral health problems of Indigenous children in the Northern Territory (CFFR 2016). The programs work with primary health-care providers to incorporate primary prevention into their services and deliver clinical oral health treatments to Indigenous children.

The Oral Health Program began as a part of the Child Health Check Initiative (CHCI), a response to the poor oral health found among Indigenous children in the Northern Territory National Emergency Response (NTER) prescribed areas in mid-2007. The program later continued under the Closing the Gap (CtG) initiative in the Northern Territory National Partnership Agreement from mid-2009 to mid-2012. These 2 programs, from 2007 to mid-2012 are collectively referred to as the CHCI(CtG). Improvements were seen in the oral health of children who received services through CHCI(CtG) oral health programs, thus demonstrating their importance.

As a result of the improvements in oral health, the Australian Government continued to fund, and also expanded, the oral health program under the Stronger Futures in the Northern Territory Oral Health Program (SFNT OHP) from July 2012 to June 2015. This program has been continued through the Northern Territory Remote Aboriginal Investment Oral Health Program (NTRAI OHP) since July 2015, and will be funded until 2022.

About the data in this report

The data used in this report are collected from the Oral Health Program in the Northern Territory funded by the Australian Government. The data include over 8,941 unique children under the age of 16 who came through the Oral Health Program between July 2012 and December 2016. This accounts for approximately 37% of the Northern Territory Indigenous population in this age group. Table 1.1 contains a breakdown of the age groups in the NTRAI OHP, and how the numbers relate to the Northern Territory Indigenous population of the same age groups. Children and young people who receive services through the NTRAI OHP are not a random sample of the population and, as such, the data may not be representative of the general population of Indigenous children in the Northern Territory. Additionally, not all dental services provided in the Northern Territory are captured within this report, as the report only includes oral health services funded by the Australian Government through the NTRAI OHP.

Table 1.1: Age distribution of children in the NTRAI OHP, and relationship to the Northern Territory Indigenous population, 2016

	Age group		
	0–5	**6–11**	**12–15**
Number of NTRAI OHP children	1,005	2,196	765
Percentage of the Northern Territory Indigenous population in the corresponding age group	11	24	13

2 Dental service delivery

What services are provided?

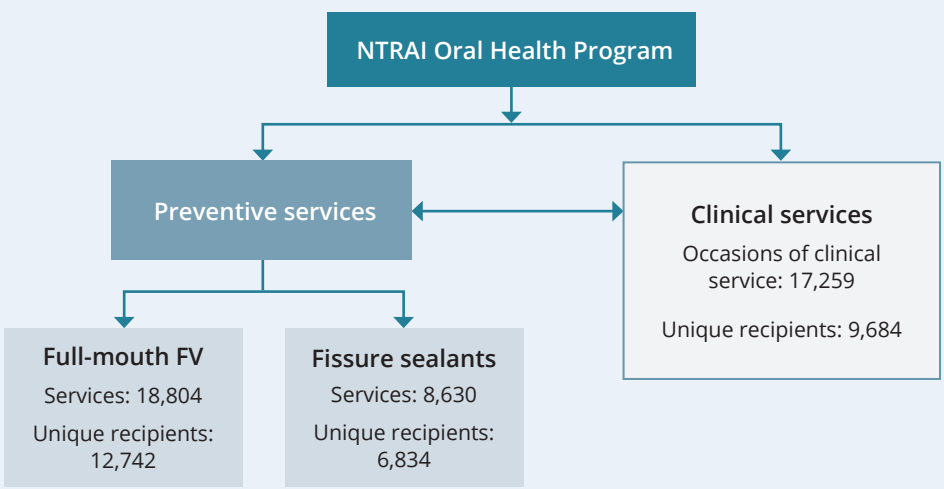
The NTRAI OHP provides clinical, preventive and oral health promotion services to Indigenous children in the Northern Territory. Figure 2.1 contains a broad overview of the services and the number of clinical and preventive services provided.

Preventive services are part of routine care in all dental clinics, and are provided as part of an individual's dental treatment plan. Specific preventive services include the application of full-mouth fluoride varnish (FV) and fissure sealants.

General dental services that are provided in all NTRAI OHP settings include:

- examinations
- restorative fillings
- extractions
- emergency care
- preventive services.

Health education is provided through a variety of health promotion activities, as well as through the 'Healthy Smiles' program. The Healthy Smiles program is an accredited training course provided to remote primary health-care workers. The course aims to develop skills in the identification and appropriate referral of oral disease, primary health promotion and the topical application of FV. Specific analysis related to these activities is not included in this report.

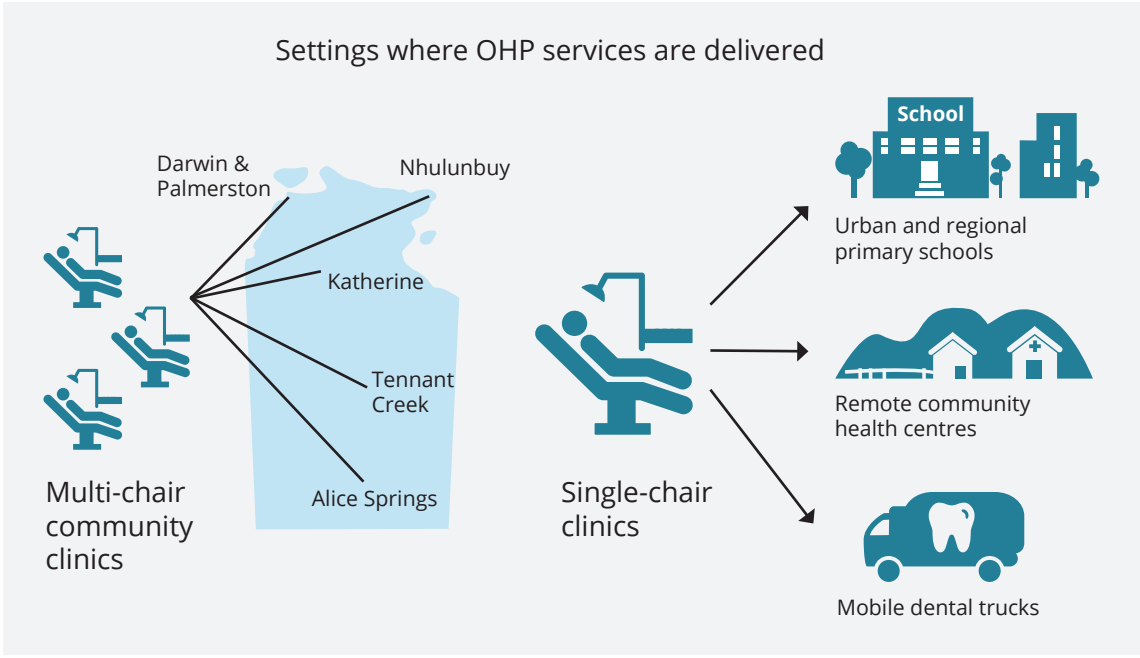


Note: The 2-way arrows mean that a child can receive multiple types of services; for example, clinical services and preventive services, and services within the 2 categories.

Figure 2.1: Services provided under the NTRAI OHP from July 2012 to December 2016

How are services delivered?

The NTRAI OHP services are provided across the Northern Territory, in multi-chair community clinics, as well as single-chair clinics found in urban and regional primary schools. To improve access to oral health services in remove areas, single-chair clinics are also found in remote community health centres and are also delivered through mobile dental trucks.



Dental services provided under general anaesthetic are carried out by Oral Health Services Northern Territory staff in the Northern Territory. Since 2015, data related to these services has not been provided to the Australian Institute of Health and Welfare (AIHW), and as such the services are not included in this report.

Mobile dental trucks are used to reach remote communities in Central Australia. Outreach dental services teams of a dentist or a dental/oral health therapist and dental assistant travel to remote communities in Central Australia for 1–3 weeks at a time. These teams also travel to remote clinics.

Remote community health centres are primarily used for service delivery in the Top End, the northern region of the Northern Territory, where dental teams utilise a single-chair clinic to provide dental service for 1–3 weeks at a time.

Distance, transport, unpredictable weather, cost and accommodation availability are all factors that challenge service delivery in remote areas of the Northern Territory. However, the NTRAI OHP provides funding to expand services in remote areas, allowing for more visits and more equitable access to oral health services.

Preventive services provided

A preventive service is a service where full-mouth FV applications and/or fissure sealants are delivered. Preventive services are provided in all NTRAI OHP locations. Although general oral health education can be considered as a preventive service, these instances are not included in the numbers in this section.

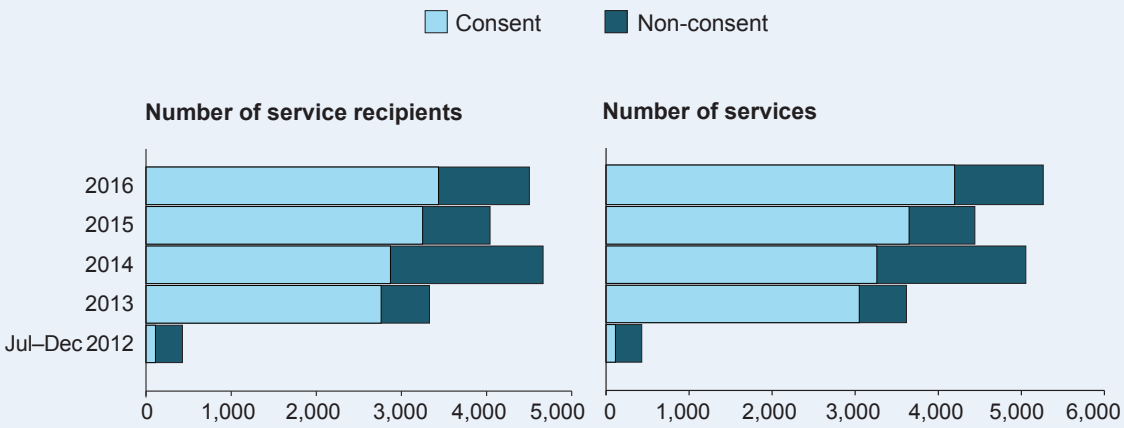
The NTRAI OHP provides a variety of oral health preventive services; however, only full-mouth FV and fissure sealant data are supplied to the AIHW and are available for analysis for this report.

Full-mouth fluoride varnish

Full-mouth FV (a concentrated form of fluoride) involves the application of a pea-sized amount of FV to as many teeth as possible in 1 service. Full-mouth FV has been shown to decrease the incidence of tooth decay when applied at least once per year, and is considered to be a valuable public health intervention (Weintraub et al. 2006).

As shown in Figure 2.2:

- In 2016, 4,502 unique children received full-mouth FV services at 5,263 occasions of service.
- Between July 2012 and December 2016, a total of 12,742 unique children received full-mouth FV services at a total of 18,804 occasions of service (not displayed in Figure 2.2).
- Since July 2012, the overall number of children in the program has increased. There was a decrease in 2015; however, the number increased again in 2016.



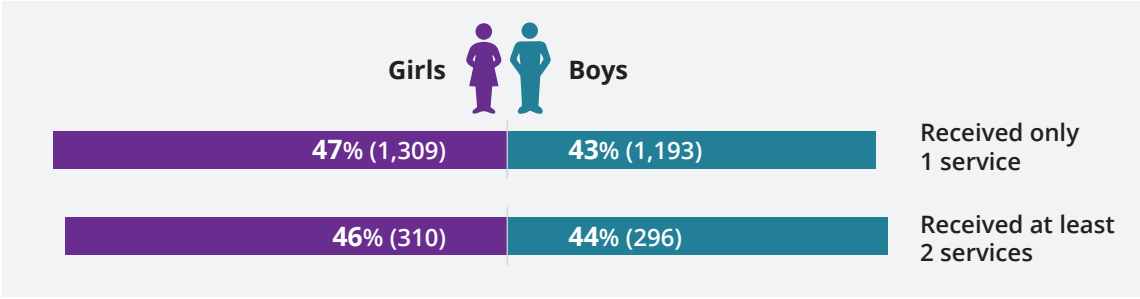
Source: Online Table 2.1.

Figure 2.2: Number of full-mouth FV services and service recipients over time

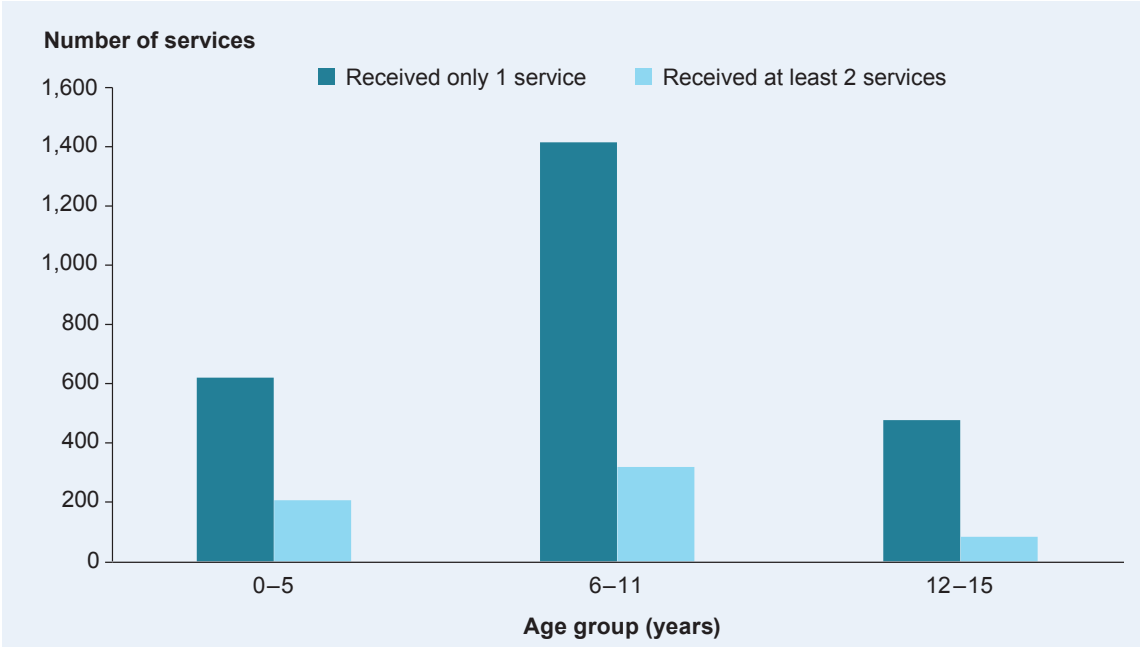
Consent rates have fluctuated over the years, and while there has been an overall improvement over time, the consent rate decreased from 83% in 2013 to 76% in 2016.

Due to the nature of non-consent, the demographic information in this report only represents children who have provided consent to share their information. When a child's parent or guardian does not provide consent to share information, only a limited amount of aggregate information is provided to the AIHW. See Appendix A for more information.

In 2016, a slightly higher percentage of girls received full-mouth FV than boys (numbers below do not add up to 100% due to missing information). Ideally, full-mouth FV services should be provided twice per year, but 1 application per year is still effective in preventing tooth decay (Weintraub et al. 2006).



A relatively low number of children received at least 2 services in 2016. Children aged 6–11 made up the largest proportion of those who only received 1 service (Figure 2.3).



Source: Online Table 2.2.

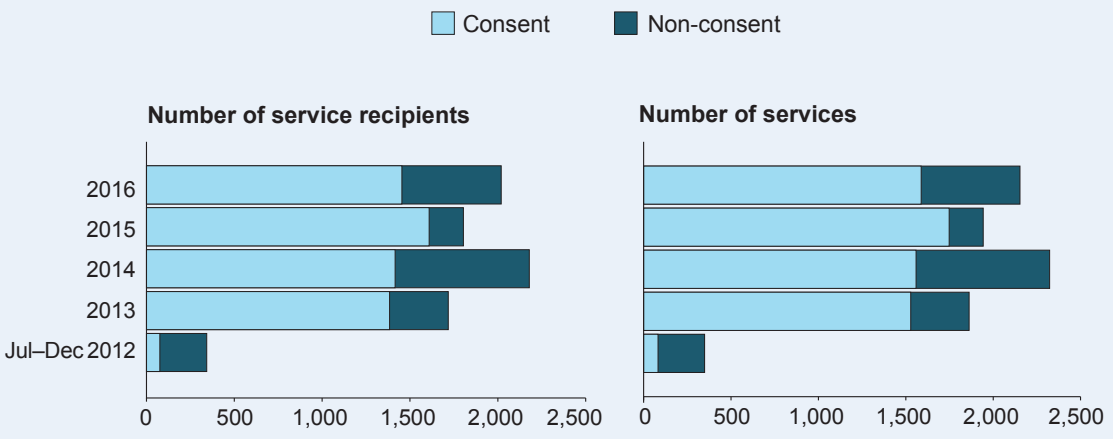
Figure 2.3: Age distribution of children who received full-mouth FV services, 2016

Fissure sealants

Another preventive service provided through the NTRAI OHP is the application of fissure sealants. A protective adhesive is applied to grooves in the biting surfaces of teeth at the back of the mouth, usually as soon as adult molars erupt. The sealants prevent dental plaque and acid build-up, and can last for many years, but require regular check-ups to see if the sealant is intact.

As shown in Figure 2.4:

- In 2016, 2,019 unique children received fissure sealant services at 2,153 occasions of service.
- Between July 2012 and December 2016, a total of 6,834 unique children received fissure sealant services at a total of 8,630 occasions of service.
- Since July 2012, the number of children in the program has increased overall. While there was a decrease in 2015, the number increased again in 2016.
- Consent rates have improved overall since 2012, where the numbers of non-consent were much higher than the numbers of consent. However, the rate of consent decreased from 89% in 2015 to 72% in 2016.



Source: Online Table 2.3.

Figure 2.4: Number of fissure sealant services and service recipients over time

A fissure sealant can be applied to more than 1 tooth at 1 occasion of service. In 2016, the average number of teeth with fissure sealant applications per recipient was 4.6.

In 2016, 547 children who had fissure sealant applications had existing caries

Children with no existing caries received **more** fissure sealants

(Average number of teeth with fissure sealants: 5.3)

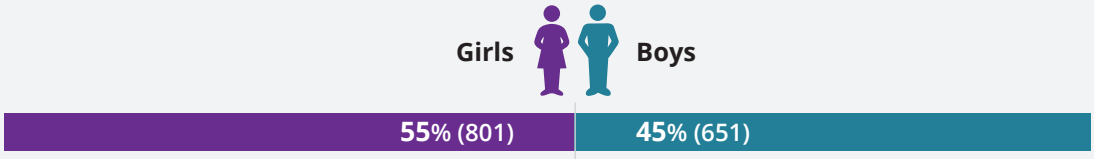
vs

Children who had existing caries

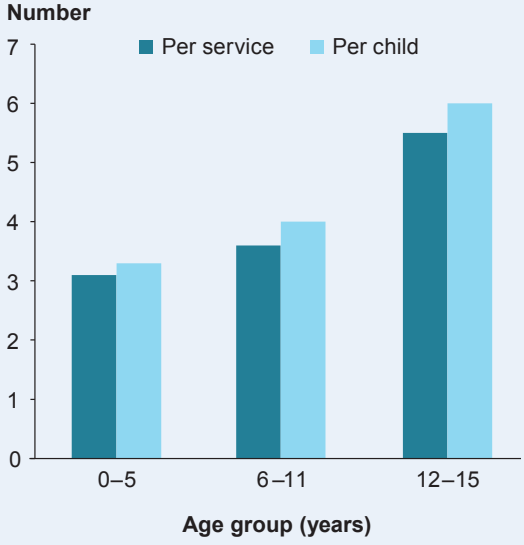
(Average number of teeth with fissure sealants: 4.5)

Source: Online Table 2.4.

More girls than boys received fissure sealants in 2016.

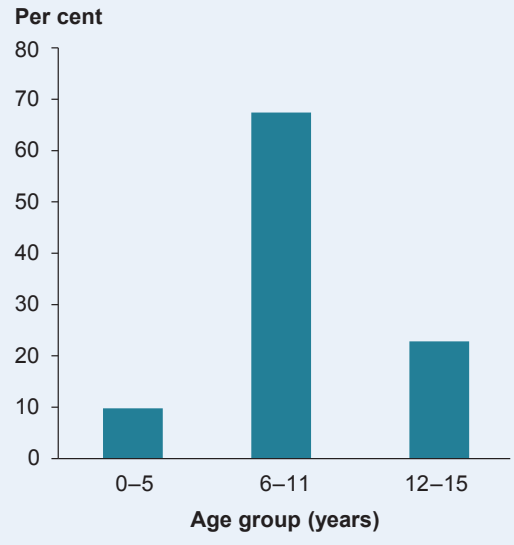


Children aged 12–15 represented the age group that had the highest average number of fissure sealants in 2016, with 6 per child (Figure 2.5). The lower averages for younger children is expected because fissure sealants should be applied to adult teeth.



Source: Online Table 2.5.

Figure 2.5: Average number of fissure sealants, by age group, 2016



Source: Online Table 2.5.

Figure 2.6: Age distribution of children who received fissure sealants, 2016

Clinical services provided

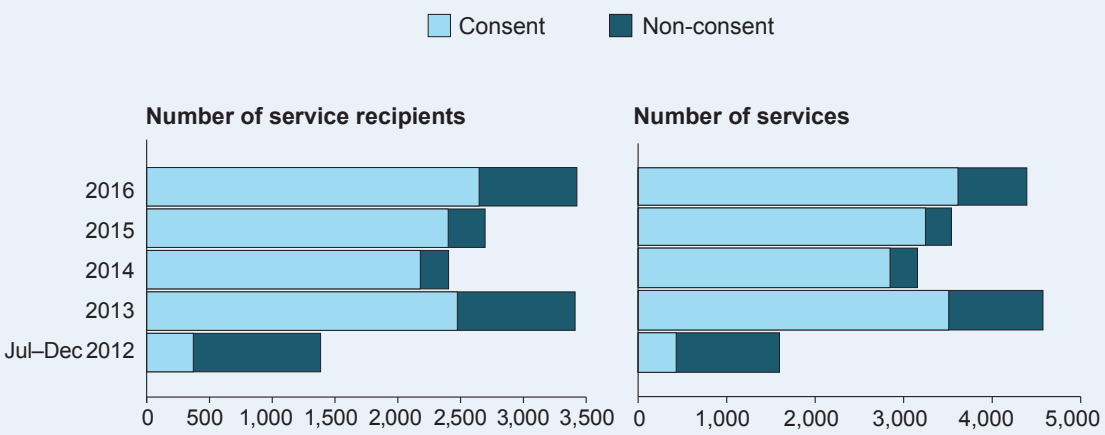
Clinical service: Clinical services can include restorative services, endodontics, tooth extractions, diagnostic services or assessments, orthodontic services and periodontic services (treatment of gums).

Occasion of clinical service: An occasion of service where at least 1 clinical service was delivered (excluding occasions where only full-mouth FV application and/or fissure sealant(s) were delivered).

Occasion of service: An appointment at a dental clinic on a specific date. A single occasion of service can involve the provision of multiple types of services within that 1 occasion.

As shown in Figure 2.7:

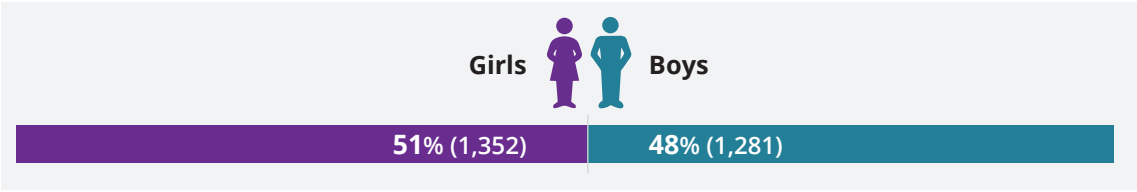
- In 2016, 3,426 unique children received 4,392 occasions of clinical service.
- Since July 2012, a total of 9,684 unique children received 17,259 occasions of clinical service. The numbers decreased between 2013 and 2014, but have been increasing slowly since.
- While consent rates were quite low at the beginning of the period (July to December 2012), they have been improving over time; however, there was an increase in non-consent numbers in 2016.



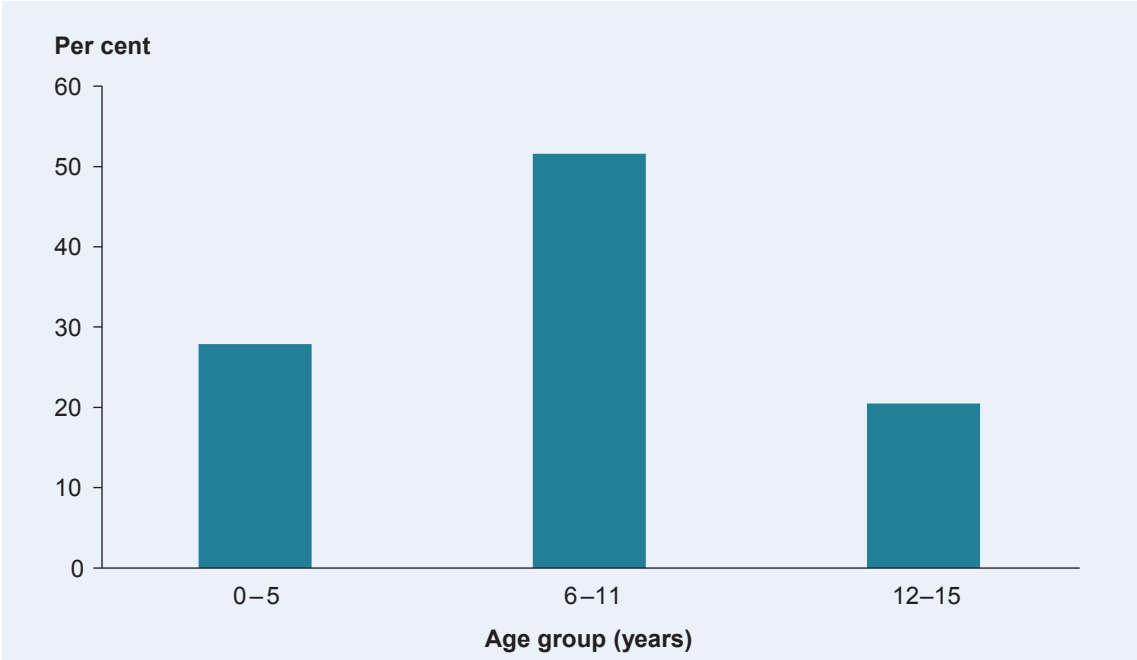
Source: Online Table 2.6.

Figure 2.7: Number of occasions of clinical service and service recipients over time

In 2016, the proportion of children who received clinical services was similar between girls and boys.



In 2016, the highest percentage of children who received a clinical service was in the 6–11 age group (52%) (Figure 2.8).



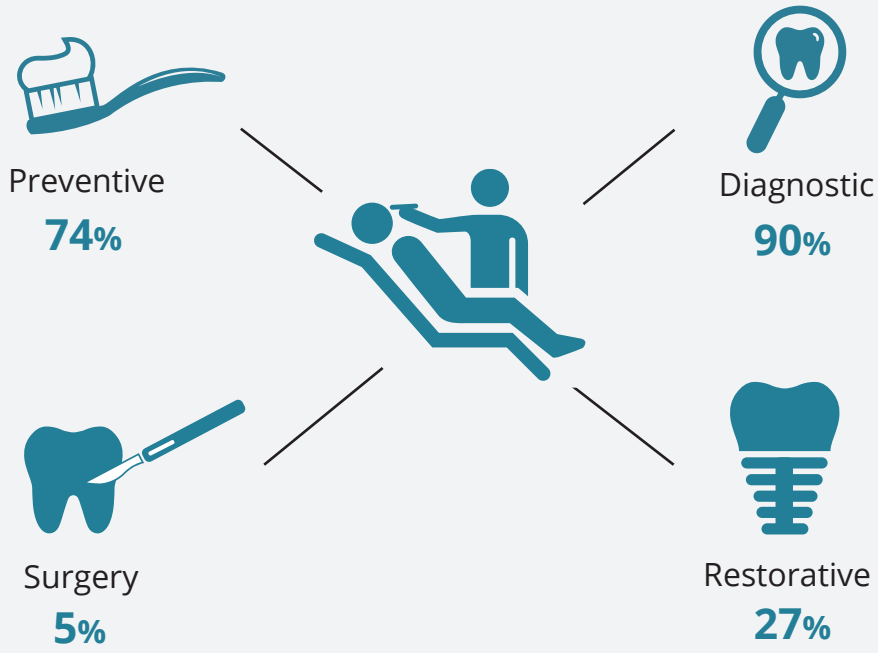
Source: Online Table 2.7.

Figure 2.8: Age distribution of children who received a clinical service, 2016

What services were provided?

Almost all children received diagnostic (assessment) services and preventive services other than full-mouth FV and fissure sealants in 2016, as seen below. Preventive services include dental prophylaxis (e.g. removal of plaque and calculus), providing dietary advice, oral hygiene instruction and mouthguards.

Types of services provided through NTRAI OHP



Source: Online Table 2.8.

3 Oral health status

Decayed, missing and filled teeth

A widely used indicator to measure oral health status is the presence of decayed, missing or filled teeth. The decayed, missing or filled teeth (dmft or DMFT) score is a measure of the number of such teeth a child has.

The dmft and DMFT score

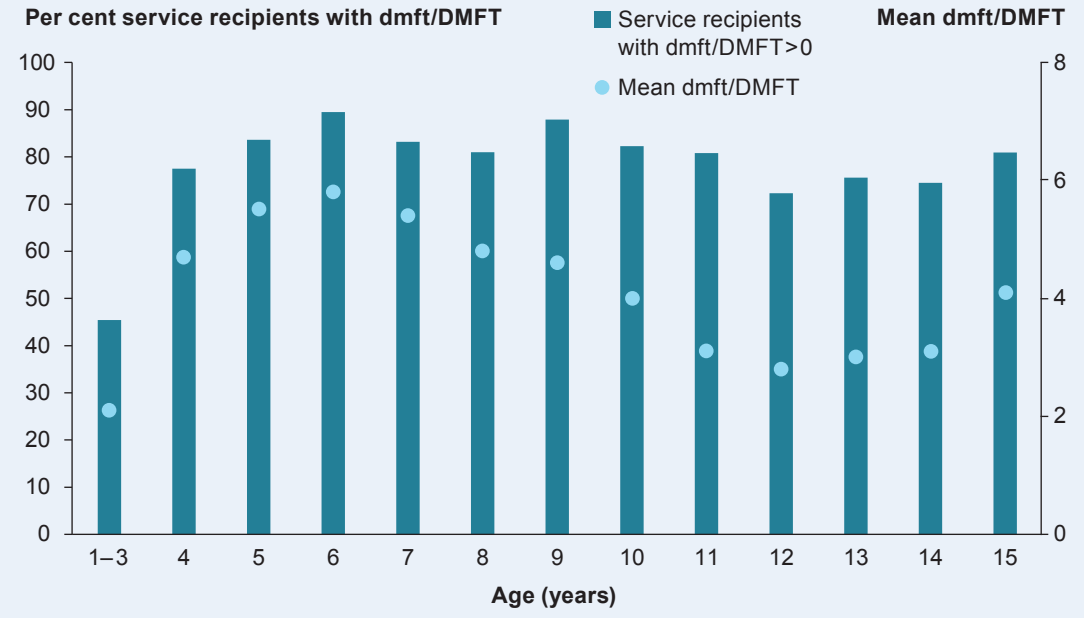
The dmft or DMFT score counts the number of teeth that are decayed, missing or filled. Lower case 'dmft' refers to deciduous or baby teeth for children aged under 10. Upper case 'DMFT' refers to permanent or adult teeth for those aged 7 and older.

For example, a score of 5 dmft means that a child has 5 decayed, missing or filled deciduous teeth.

When children have a dmft/DMFT score that is greater than 0, this is known as having caries or tooth decay experience.

As shown in Figure 3.1:

- The experience of tooth decay varied with age, with children aged 5–11 and 15 having the highest percentages of tooth decay experience in 2016
  - 90% of 6 year olds had tooth decay experience
  - 88% of 9 year olds had tooth decay experience.
- The highest mean dmft/DMFT scores were among children aged 6 (score of 5.8) and aged 5 (score of 5.5).



Source: Online Table 3.1.

Figure 3.1: Tooth decay experience within each age group, 2016

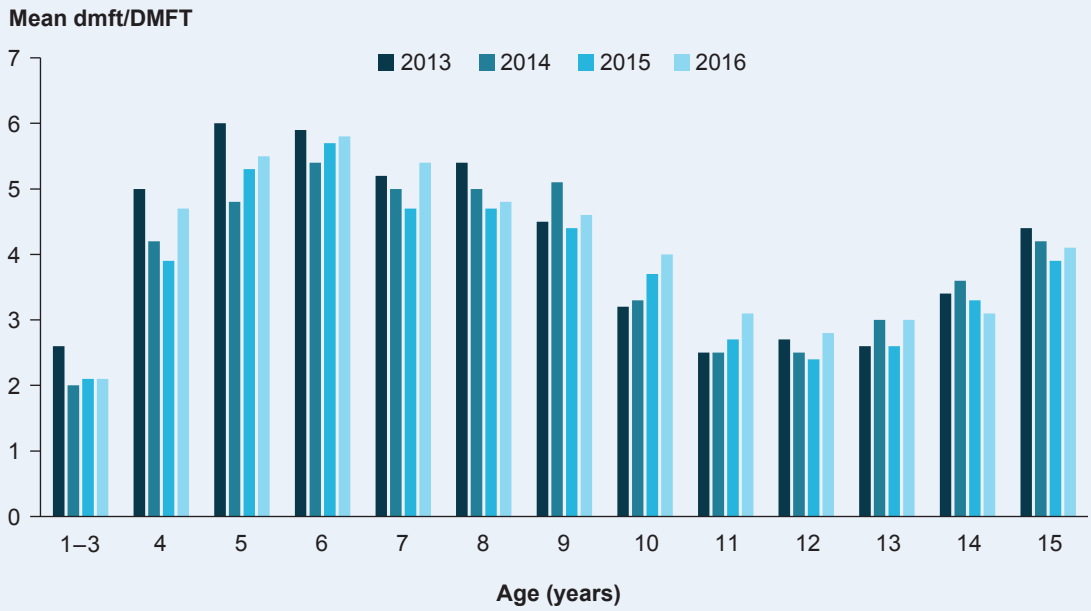
In general, mean dmft scores were higher than mean DMFT scores, meaning that through the NTRAI OHP, more decayed, missing and filled teeth were found among children's baby teeth:

- Children aged 6 had the highest dmft score (5.7).
- Children aged 15 had the highest DMFT score (4.0).

***Find out more** in Online Table 3.1.*

From 2013 to 2016, as shown in Figure 3.2:

- The proportion of children with tooth decay fluctuated with age and over time.
- Overall, there was a reduction in mean dmft/DMFT among earlier ages, and also among 14 and 15 year olds:
  - A 19% reduction in mean dmft/DMFT was found among 1–3 year olds.
  - An 11% reduction in mean dmft/DMFT was found among 8 year olds.
- For children aged 7, and those between 9 and 13, mean dmft/DMFT increased over time:
  - There were 25% and 24% increases in mean dmft/DMFT found among 10 and 11 year olds, respectively.



Sources: Online tables 3.1, 3.2, 3.3, 3.4.

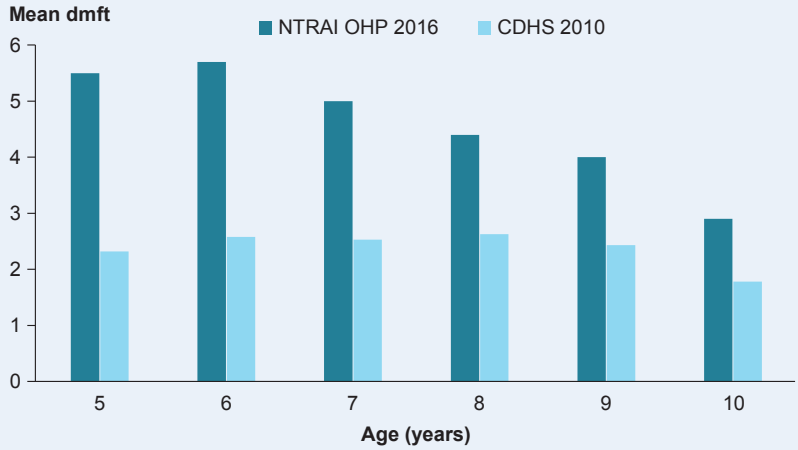
Figure 3.2: Mean dmft/DMFT among children, 2013 to 2016

How do children in the NTRAI OHP compare with other Australian children?

The Child Dental Health Survey (CDHS) provides information on oral health among children in Australia who have attended a school dental service (excluding children from New South Wales and Victoria). The survey also includes Indigenous children, and 6.8% of children who responded were Indigenous.

Younger Indigenous children seen through the NTRAI OHP had much higher mean dmft than other children in Australia (Figure 3.3). For children with adult teeth, this disparity is also seen, but is not as pronounced (Figure 3.4).

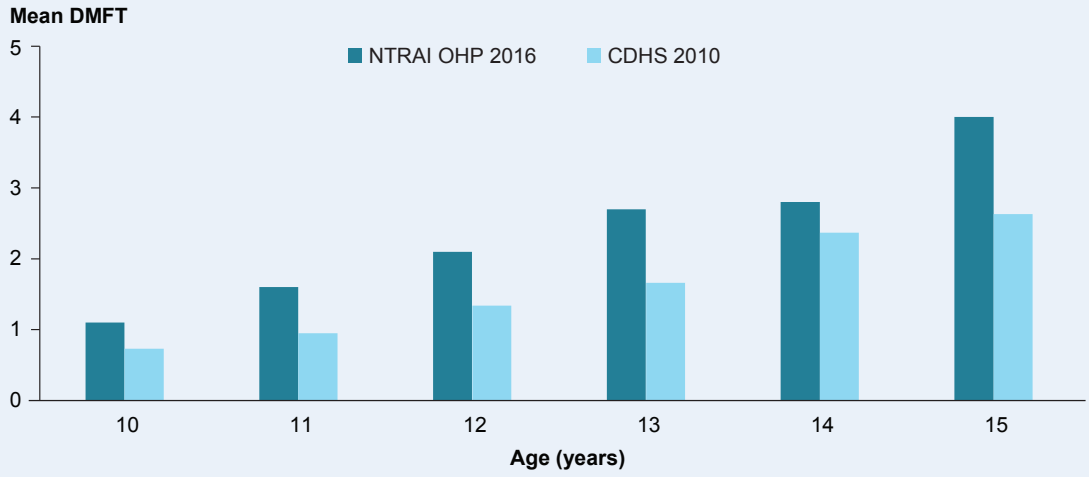
Children aged 5–7 in the NTRAI OHP have around **double** the mean dmft of other children in Australia (excluding New South Wales and Victoria)



Note: The CDHS does not include children from New South Wales or Victoria.

Sources: Online Table 3.1; Child Dental Health Survey 2010.

Figure 3.3: Mean dmft score among children in the NTRAI OHP and in the Child Dental Health Survey (CDHS)



Note: The CDHS does not include children from New South Wales or Victoria.

Sources: Online Table 3.1; Child Dental Health Survey 2010.

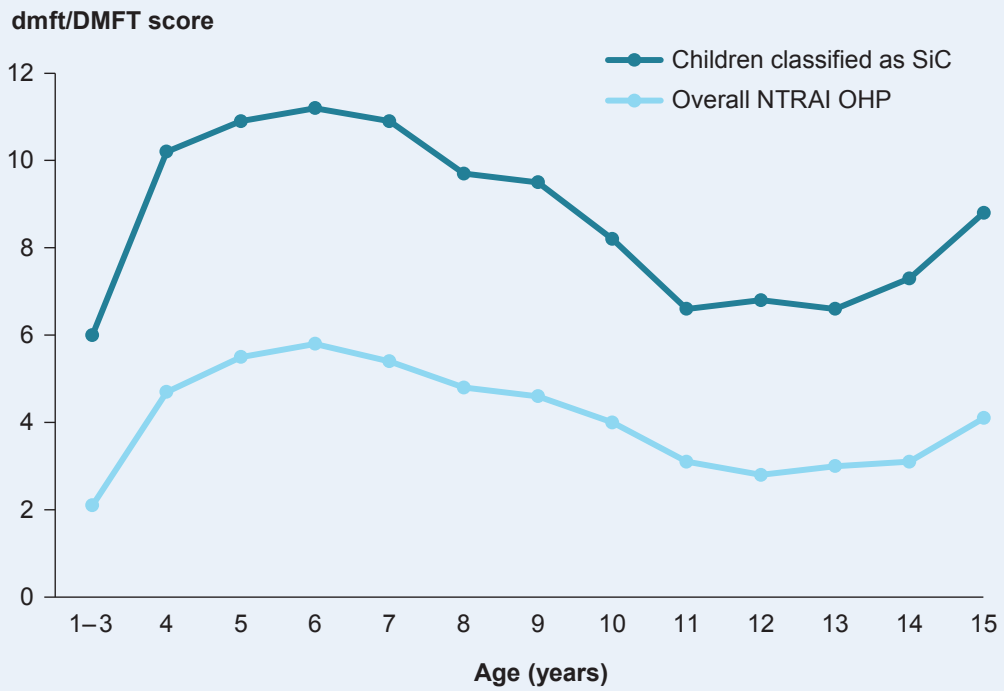
Figure 3.4: Mean DMFT score among children in the NTRAI OHP and in the Child Dental Health Survey (CDHS)

Significant Caries Index

The Significant Caries Index (SiC) is used to pinpoint children who have the worst tooth decay experience in a group. The SiC value is the average number of dmft/DMFT among children who are in the highest 30% of dmft/DMFT scores.

Figure 3.5 shows the difference between the mean dmft/DMFT scores among all the children in the program versus those with SiC values:

- In 2016, children with SiC values had 2 to 3 times higher dmft/DMFT scores than the rest of the children in the NTRAI OHP.



Note: The SiC value is the mean dmft/DMFT among children who have the highest 30% of dmft/DMFT scores.

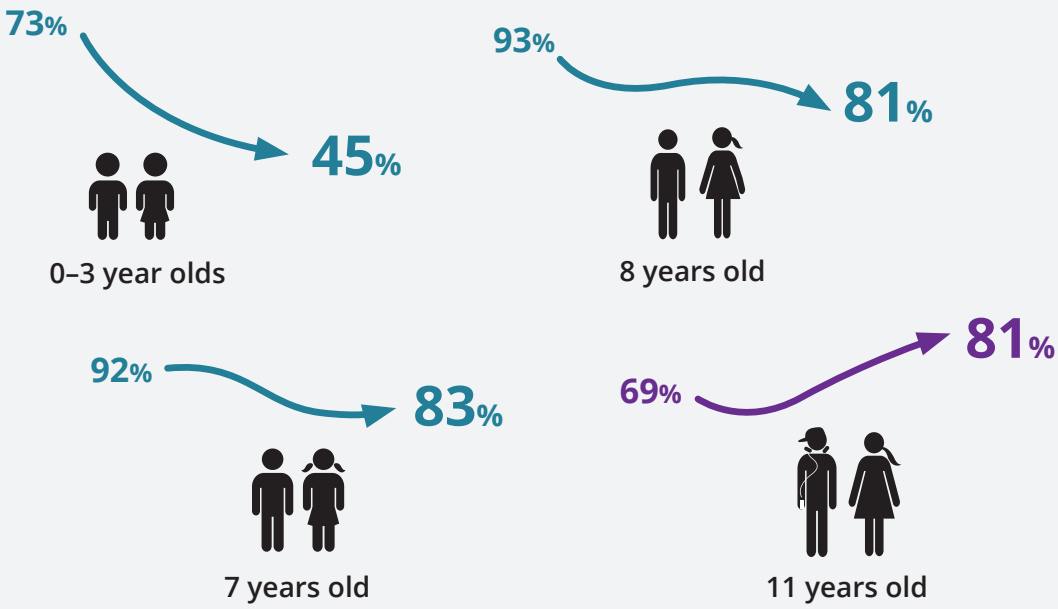
Source: Online Table 3.1.

Figure 3.5: SiC and mean total dmft/DMFT scores, 2016

Changes in tooth decay over time

From March 2009 to December 2016, tooth decay experience generally decreased for younger ages (8 and below), and generally increased for older ages (9 and above). Overall, the average change in the proportion of tooth decay experience for each age was a decrease of 4 percentage points.

Tooth decay experience from March 2009 to December 2016



Source: Online Table 3.5.

It is important to note that changes over time could either be associated with changes in the sample of children who were in the program at different times, or actual changes in tooth decay experience of children through the program. Results are based on data made available to the AIHW periodically, and are not representative of the whole population.

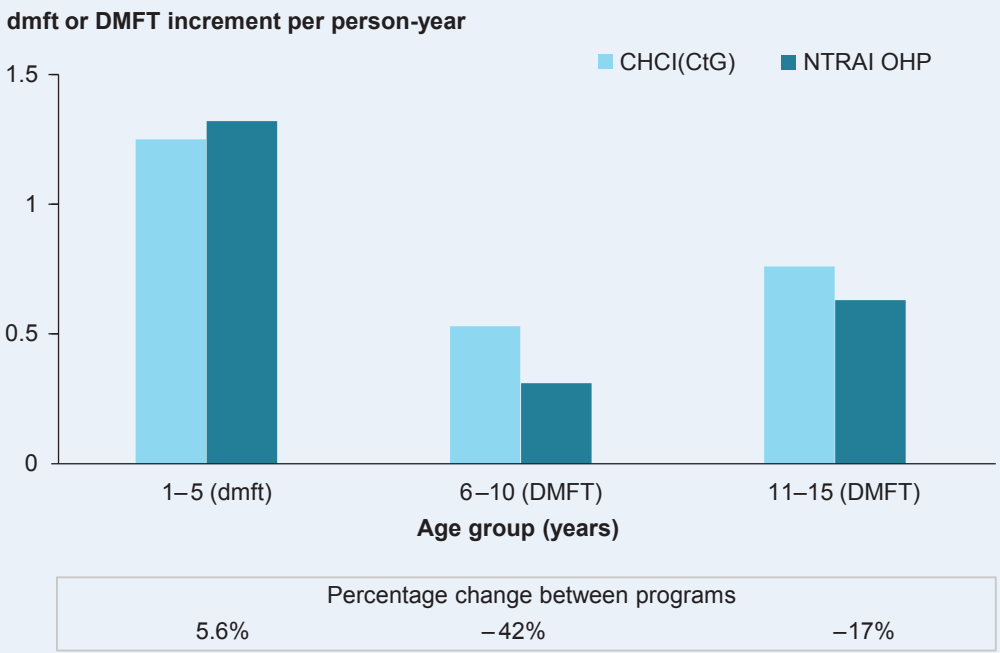
Change over time and differences across CHCI(CtG) and NTRAI OHP

Another method of looking at the changes in children's oral health among the OHPs is to compare tooth decay experience for the same children across multiple services. Data from the CHCI(CtG) are available from August 2008 to June 2012, and can be compared with the NTRAI OHP from July 2012 to December 2016.

The change in dmft/DMFT was examined for children who had at least 2 dmft/DMFT records in 1 of the CHCI(CtG) or NTRAI OHP time periods. A time gap of at least 3 months between services was included to allow for enough time to see changes in oral health. Additionally, to truly compare the programs, children who had received services in both programs were excluded.

Through both programs, tooth decay experience increased over time, measured by an increment in dmft or DMFT per person-year (as seen in Figure 3.6):

- For deciduous teeth in children aged 1–5, there was a higher increase in tooth decay experience over time in the NTRAI OHP.
- For permanent teeth in children aged 6–10 and 11–15, increases in tooth decay experience were higher in the CHCI(CtG) program.
- Tooth decay experience among children aged 6–10 and 11–15 decreased by 42% and 17%, respectively, from the CHCI(CtG) to the NTRAI OHP.



Source: Online Table 3.6.

Figure 3.6: Changes in dmft or DMFT among children who had at least 2 services

Changes observed over time could be explained by a number of factors:

- Preventive interventions (for example, full-mouth FV) introduced at the population level through the NTRAI OHP could decrease the presence of tooth decay.
- The CHCI(CtG) cohort is relatively small, and the smaller sample size could cause variability in the findings.
- Children aged 6–10 have fewer teeth because their permanent teeth are still developing after they have lost their deciduous teeth. This could be a reason for this age group having the smallest increase in dmft/DMFT over time.

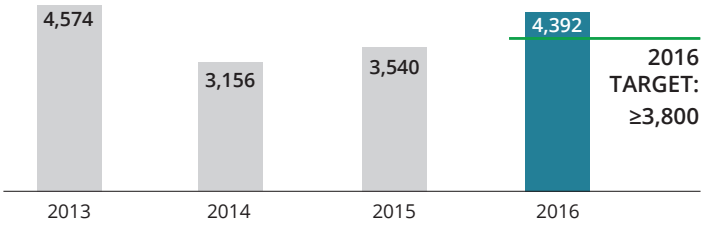
4 Progress against benchmarks

The Oral Health Program has performance indicators and benchmarks to monitor the outcomes achieved through the program. The targets are set jointly by the Australian and Northern Territory departments of health through the Northern Territory Health Implementation Plan (CFFR 2016).

Service delivery targets

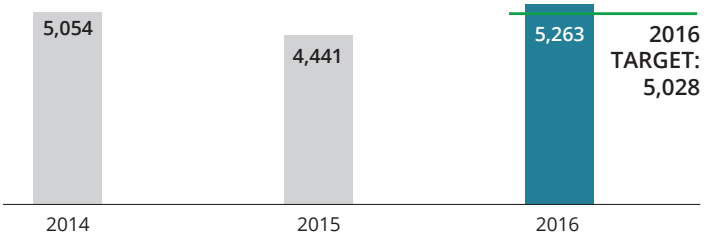
Clinical service target

3,800 occasions of **clinical service** per year



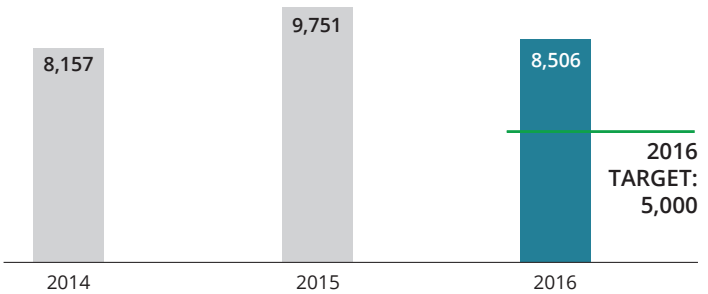
Fluoride varnish target

5,028 **fluoride varnish** applications in 2016



Fissure sealant target

Fissure sealant applications to 5,000 teeth in 2016



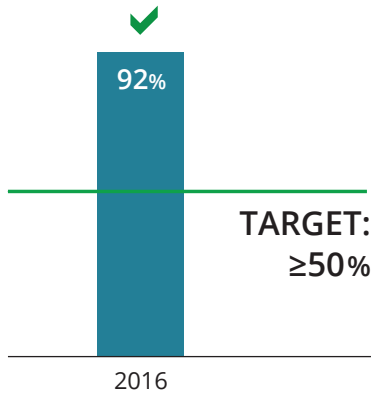
Notes

1. The fissure sealant target is based on the number of teeth that had a fissure sealant application. The target is different from the data presented elsewhere in this report on the number of fissure sealant application services.
2. Primary care team data for clinical services, fluoride varnish and fissure sealants for 2014 and 2015 are not included in the above performance measures.

Health outcome targets

Prioritisation of preventive services target

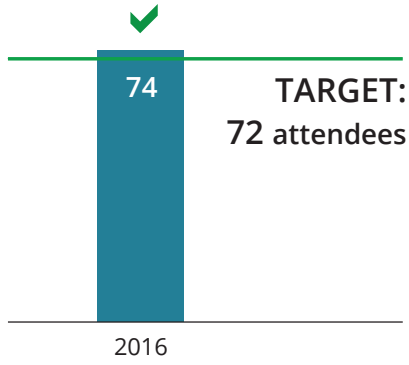
≥50% of total service items are **preventive services**



The data for the preventive services target above include fissure sealants, full-mouth FV and preventive services that were provided during clinical occasions of service. Only data where consent was obtained to share information were used.

Healthy Smiles training target

At least 72 participants attending the **Healthy Smiles training program**



Note: the data for the Healthy Smiles program are provided directly by the Northern Territory Department of Health.

Appendix A: About the Oral Health Program data collection

Data collection, management and reporting

The Australian Government Department of Health commissioned the Australian Institute of Health and Welfare (AIHW) to collect, manage and report on oral health services data provided through the Oral Health Program in the Northern Territory. The data are extracted from an electronic information system where dental professionals record clinical information, and the data are then sent electronically to the AIHW.

Children who received oral health services under the Northern Territory Remote Aboriginal Investment Oral Health Program (NTRAI OHP) are not a random sample of Indigenous children in the Northern Territory. As well, not all dental services provided in the Northern Territory are captured in the NTRAI dental data collection because it includes only oral health services funded by the Australian Government through the NTRAI OHP. Services provided through other funding sources (for example, the Northern Territory Government or private sector) are not included in this report. Therefore, findings in this report are not representative of all Indigenous children in the Northern Territory.

The data that the AIHW receives rely on parents or guardians of service recipients providing their consent to share individual information. Detailed information on dental services are only sent to the AIHW when consent is given. In cases where that consent is not given, the AIHW receives aggregate information on the number of services and service recipients. Therefore, apart from the total number of services and service recipients, other information in this report is representative of children for whom consent was obtained, rather than of all service recipients.

Appendix B: Data Quality Statement

SFNT/NTRAI dental data collection summary

- This data collection included over 8,000 Indigenous children who were aged between 0 and 15 and who received oral health services under the Stronger Futures in the Northern Territory Oral Health Program (SFNT OHP) and, later, under the Northern Territory Remote Aboriginal Investment Oral Health Program (NTRAI OHP). They account for around 37% of the Northern Territory Indigenous population for this age group (23,889).
- Data collected as part of the SFNT/NTRAI OHP are a by-product of a clinical process. Dental professionals who provide clinical services document the results on standard data collection forms or in a computer-based data collection system.
- In the first 6 months of the SFNT OHP (July to December 2012), the consent rate to share data with the AIHW was low, at 27% for clinical service recipients, 26% for full-mouth fluoride varnish (FV) recipients, and 22% for fissure sealant recipients; data collected in this period are not representative of all SFNT dental services and service recipients. However, consent rates improved substantially after the initial period to 89% for clinical service recipients, 81% for full-mouth FV recipients, and 89% for fissure sealant recipients in 2015, but have decreased to 77%, 76%, and 72%, respectively in 2016.

A full Data Quality Statement for the SFNT/NTRAI dental data collection can be found online at <https://www.aihw.gov.au/reports/indigenous-health-welfare-services/nt-oral-health-program-2012-to-2016/notes>.

Glossary

deciduous teeth: Primary teeth that develop during the embryonic stage of human development and erupt (that is, become visible in the mouth) during infancy. They are usually lost and replaced by permanent teeth, but in the absence of permanent replacements, they can remain functional for many years.

dental caries: An infectious disease that can lead to cavities (small holes) in the tooth structure that compromise both the structure and the health of the tooth, commonly known as tooth decay.

diagnostic services: Services that include examinations (initial, periodic and emergency oral examinations; consultations; written reports; referrals), radiographical examination and interpretation (intraoral radiographs, skull radiographs) and other diagnostic services (including bacteriological examination, antibiotic sensitivity tests, biopsy and models).

dmft: Decayed, missing or filled deciduous (or baby) teeth.

DMFT: Decayed, missing or filled permanent (or adult) teeth.

dmft/DMFT: The score for deciduous and permanent teeth combined (that is, dmft + DMFT).

endodontics: Pulp or nerve treatments (pulp capping, pulpotomy, extirpation or debridement of root canal).

extraction: Removal of permanent or deciduous tooth or tooth fragment.

fissure sealants: Thin adhesive coatings that are applied to the grooves on the chewing surfaces of the back teeth to protect them from tooth decay.

full-mouth fluoride varnish (FV): A concentrated form of fluoride that is applied in 1 service to all dentition.

Indigenous: A person of Aboriginal or Torres Strait Islander descent who identifies as an Aboriginal or Torres Strait Islander and is accepted as such by the community in which they live.

permanent teeth: Adult or secondary teeth that start to erupt at around 6 years of age. By about age 21, a person usually has 32 permanent teeth.

preventive services: Services including dental prophylaxis (removal of plaque, removal of calculus, recontouring of existing restorations), topical fluoride (application of fluoride solution or gel, instruction on self-application) and other preventive services (including dietary advice, oral hygiene instruction, fissure sealing and mouthguards).

restorative services: Removal of diseased tooth structures and replacement with amalgams, glass ionomer, silicate and composite resins (filling of 1, 2, 3+ surfaces).

Significant Caries Index (SiC): Mean dmft/DMFT score among children who have the highest 30% of dmft/DMFT scores.

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AIHW (Australian Institute of Health and Welfare) 2016. Australian Burden of Disease Study: impact and causes of illness and death in Aboriginal and Torres Strait Islander people 2011. Australian Burden of Disease Study series no. 3. Cat. no. BOD 4. Canberra: AIHW.

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NACDH (National Advisory Council on Dental Health) 2012. Report of the National Advisory Council on Dental Health. Canberra: NACDH.

Weintraub JA, Ramos-Gomez F, Jue B, Shain S, Hoover CI, Featherstone JDB et al. 2006. Fluoride varnish efficacy in preventing early childhood caries. Journal of Dental Research 85(2):172–176.

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Related publications

The following Australian Institute of Health and Welfare (AIHW) publications on Stronger Futures in the Northern Territory (SFNT) and Northern Territory Remote Aboriginal Investment (NTRAI) oral health programs may be of interest:

AIHW 2017. Northern Territory Remote Aboriginal Investment: Oral Health Program July 2012 to December 2015. Cat. No. IHW 175. Canberra: AIHW.

AIHW 2014. Stronger Futures in the Northern Territory: Oral Health Program

July 2012 to December 2013. Cat. no. IHW 144. Canberra: AIHW.

AIHW 2012. Northern Territory Emergency Response Child Health Check Initiative—follow-up services for oral and ear health: final report, 2007–2012. Cat. no. DEN 223. Canberra: AIHW.

AIHW 2011. Dental health of Indigenous children in the Northern Territory: findings from the Closing the Gap Program. Cat. no. IHW 41. Canberra: AIHW.

These reports can be downloaded for free from the AIHW website <https://www.aihw.gov.au/reports-statistics>. The website also includes information on ordering printed copies.

The Australian Government has been funding oral health services for Indigenous children in the Northern Territory since 2007. In 2016, 3,426 Indigenous children received clinical services, and preventive services such as full-mouth fluoride varnish applications were provided to 4,502 Indigenous children and fissure sealant services to 2,019 children. Tooth decay experience varied by age, with 90% of children aged 6 and 88% of 9-year olds having tooth decay. There have been improvements in the oral health of younger service recipients, with the average amount of tooth decay in children aged 1–3 decreasing by 19%, and an 11% decrease among 8 year olds between 2013 and 2016.

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