

Oral health of children

This report presents information about children's oral health, measured in terms of dental caries history and decayed, missing or filled teeth.

Key facts

- In 2022, 56% of the 33,202 five-year-olds seen by community oral health services had no history of dental caries. These children had 2.0 decayed missing or filled teeth on average.
- In 2022, 69% of the 45,595 children in school-year eight seen by community oral health services had no history of dental caries. These children had 0.7 decayed missing or filled teeth on average.
- Māori and Pacific children had poorer oral health compared to other ethnicities.
- Children in Te Tai Tokerau, Lakes, MidCentral and Counties Manukau districts tended to have worse oral health than those in other districts.

About oral health in children

Good oral health has major benefits in children, preventing pain, infection, and oral diseases such as dental caries (tooth decay). Children are at risk of dental caries as soon as their primary teeth ('baby teeth') begin to break through the gum at about the age of six months (Ministry of Health 2010).

Tooth decay is the most common disease and is also one of the leading reasons for preventable hospital stays among children in New Zealand (Ministry of Health 2015). Adding fluoride to drinking-water supplies can help prevent tooth decay (Royal Society of New Zealand 2014).

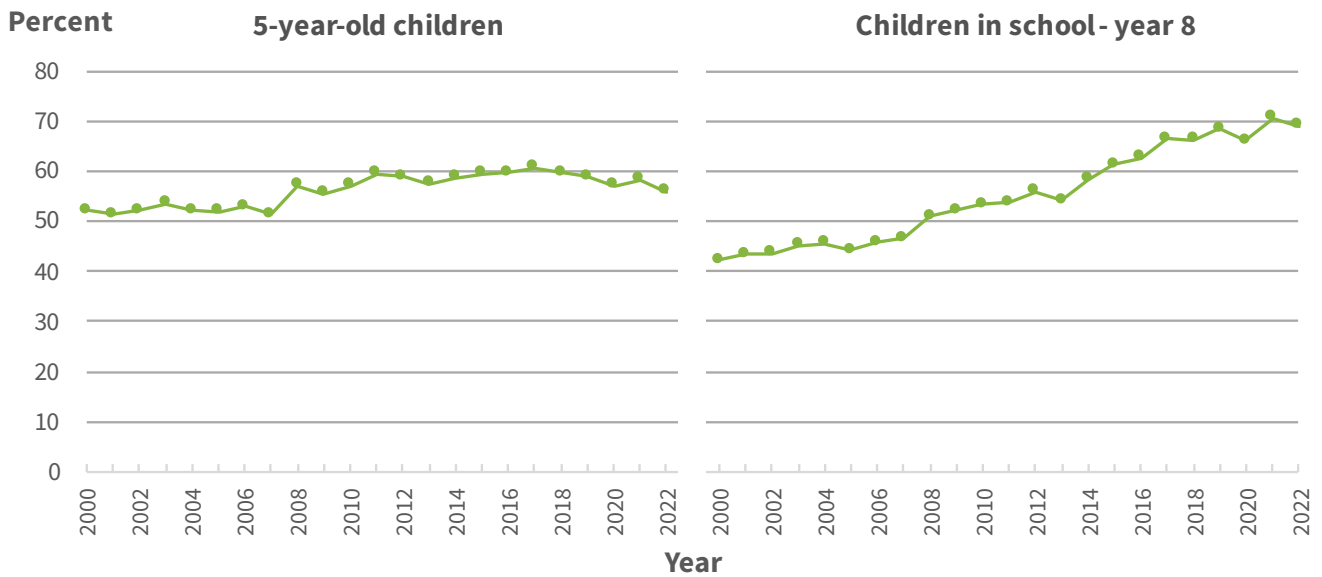
Oral health improves in older children, at a standstill in younger children

Between the start of the millennium and 2022, the oral health of five-year-old children and children in school year eight improved. The improvements among older children were more substantial in both cases.

Between 2000 and 2017, the proportion of five-year-old children that were caries-free (i.e. had no past or current dental decay experience) increased from 52.1% to 60.6% (Figure 1/left) but has apparently been in decline since, falling to 56% by 2022. In effect, the prevalence of dental caries in 5-year-olds has not changed since 2008.

The proportion of caries-free children in school-year eight rose steadily from 42.2% to 69.0% (Figure 1/right).

Figure 1: Children seen by community oral health services who were caries-free, 2000–2022



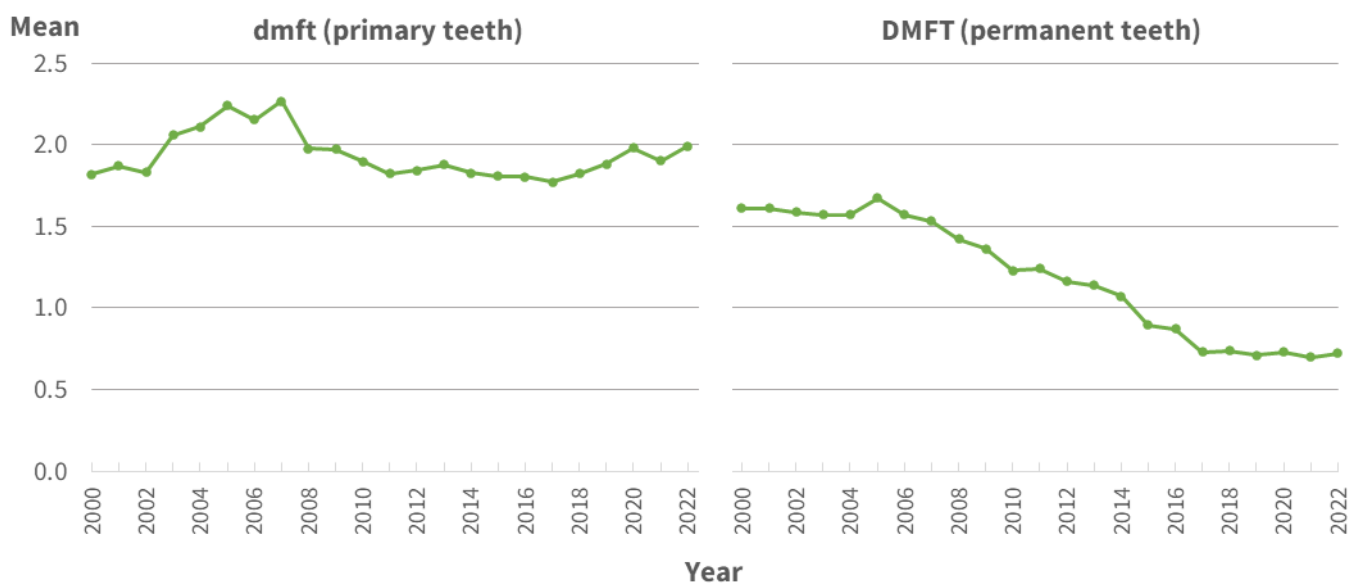
Source: Ministry of Health 2023

Five-year-old children's mean dmft (number of decayed missing and filled **primary** teeth) was 2.0 in 2022 (Figure 2/left). At the start of the millenium, the figure was 1.8, so there has been little change in this indicator over time.

This period of minimal change coincides with a decline in the number of children seen by the Community Oral Health Service. As neither caries-free rates nor mean dmft among five-year-olds changed much despite this, it appears that these fewer children may be carrying a higher burden of disease.

Between 2000 and 2022, the mean number of DMFT (decayed missing and filled **permanent** teeth) of children in school-year eight dropped from 1.6 to 0.7 (Figure 2/right). This means that on average, they had fewer than half as many decayed, missing or filled permanent teeth in 2022 compared to 2000.

Figure 2: Mean dmft / DMFT in children seen by community oral health services, 2000–2022

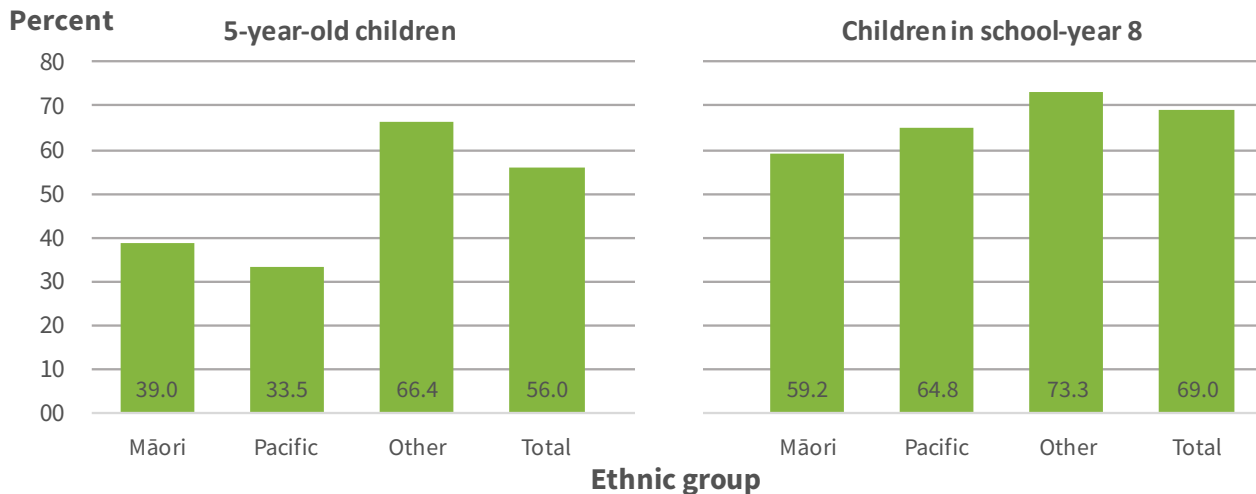


Source: Ministry of Health 2023

Māori and Pacific children have worse oral health

Māori and Pacific children in both age groups were less likely to be caries-free than children of European/Other ethnicity (Figure 3). Pacific children, in particular, had poor caries-free rates, with only one in three five-year-olds and half of the children in school-year eight having no history of dental caries.

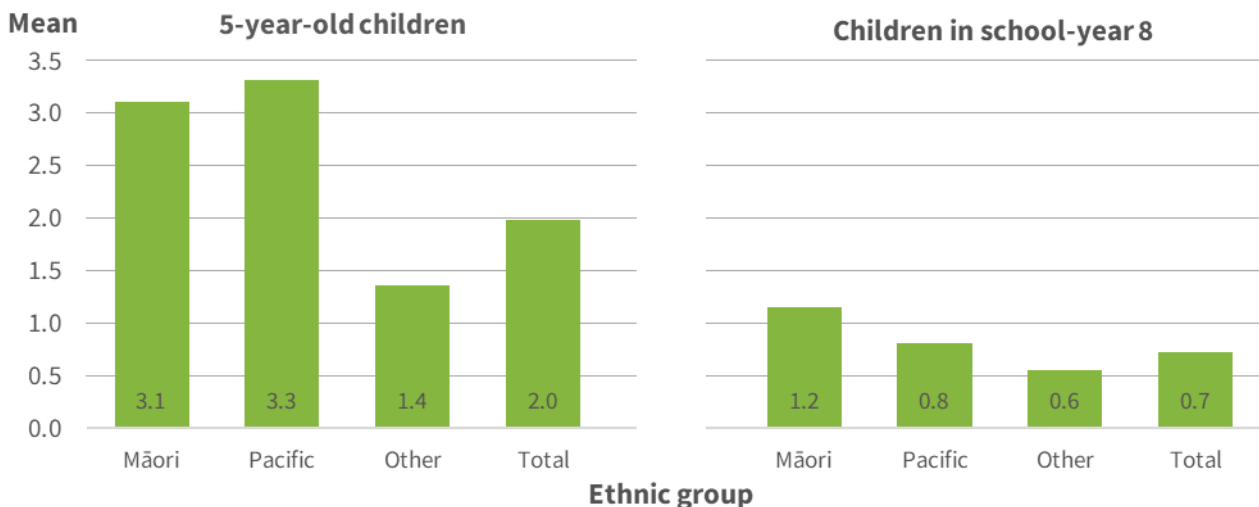
Figure 3: Children seen by community oral health services who were caries-free by ethnic group, 2022



Source: Ministry of Health 2023

Regarding decayed, missing or filled teeth, Māori and Pacific children in both age groups had worse oral health than children of European/Other ethnicity – with younger children having more than twice as many decayed, missing or filled teeth (Figure 4). However, the contrast between different ethnicities was less pronounced in older children.

Figure 4: Mean dfmt / DMFT among children seen by community oral health services, by ethnic group, 2022



Source: Ministry of Health 2023

Geographic breakdown of oral health statistics

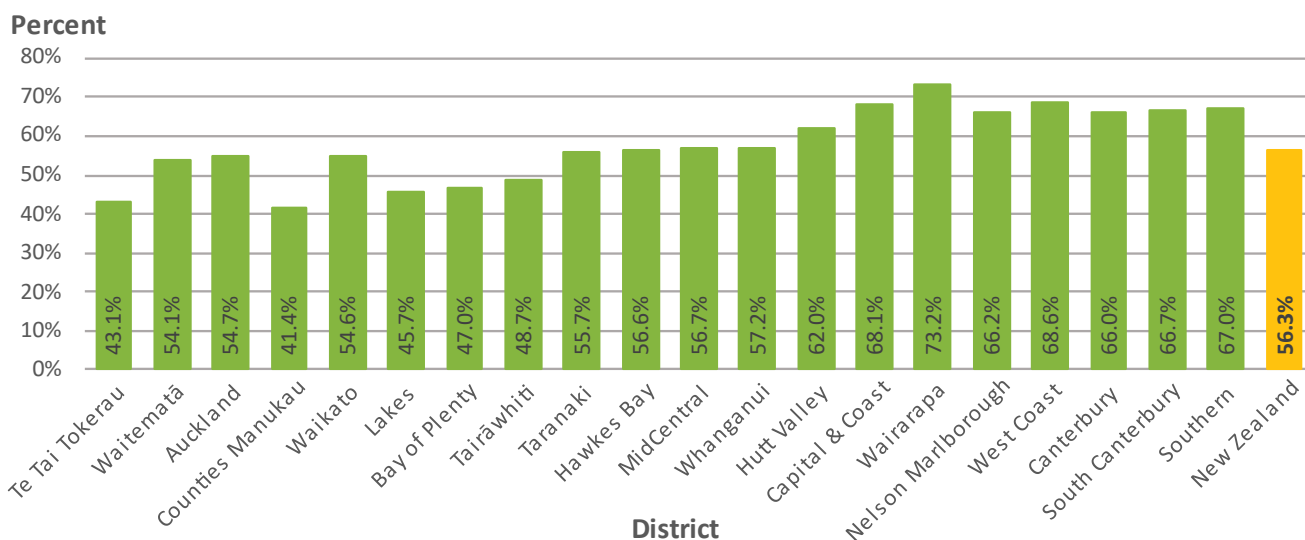
In 2022, the districts with the lowest percentage of caries-free five-year-olds (Figure 5) were:

- Counties Manukau (41.4%)
- Te Tai Tokerau [Northland] (43.1%)
- Lakes (45.7%)

The districts with the lowest percentage of caries-free children in school-year eight (Figure 6) were:

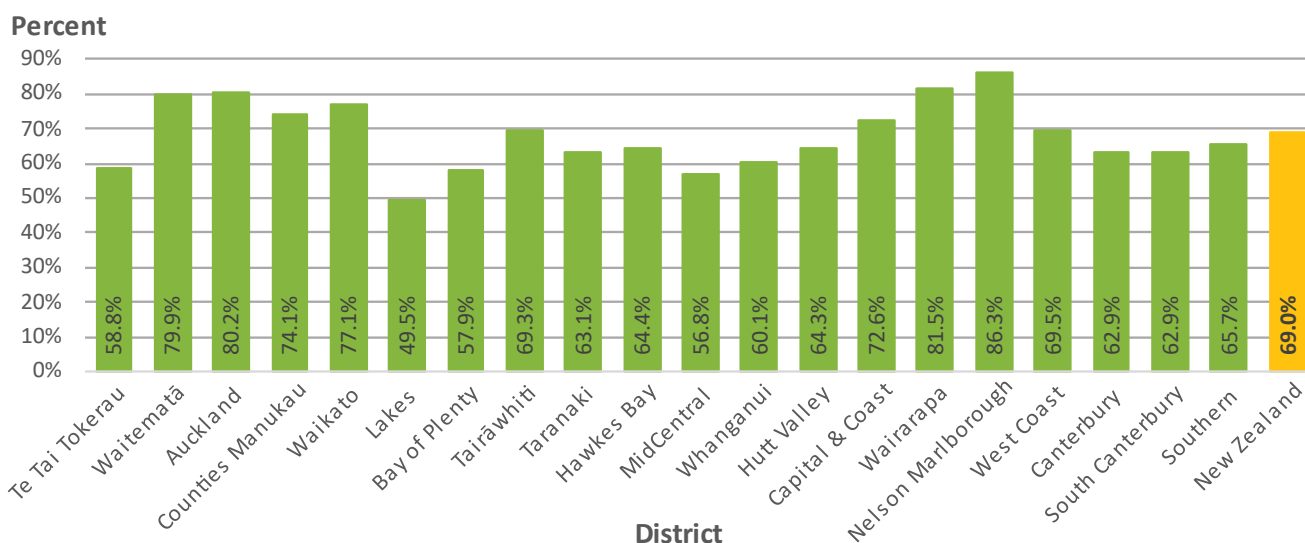
- Lakes (49.5%)
- MidCentral (56.8%)
- Bay of Plenty (57.9%)

Figure 5: Percent of five-year-old children seen by community oral health services who were caries-free, by district, 2022



Source: Ministry of Health 2023

Figure 6: Percent of in school-year eight seen by community oral health services who were caries-free, by district, 2022



Source: Ministry of Health 2023

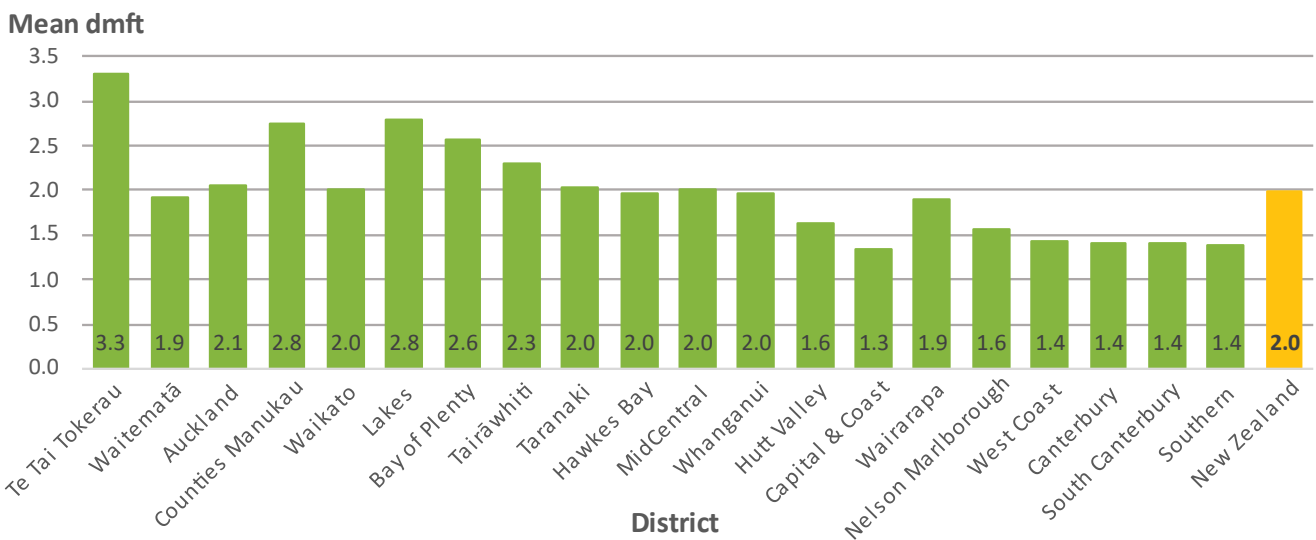
In 2022, the districts with the highest mean dmft among five-year-old children (Figure 7) were:

- Te Tai Tokerau [Northland] (3.3)
- Lakes (2.8)
- Counties Manukau (2.8)

The districts with the highest mean DMFT among children in school-year eight (Figure 8) were:

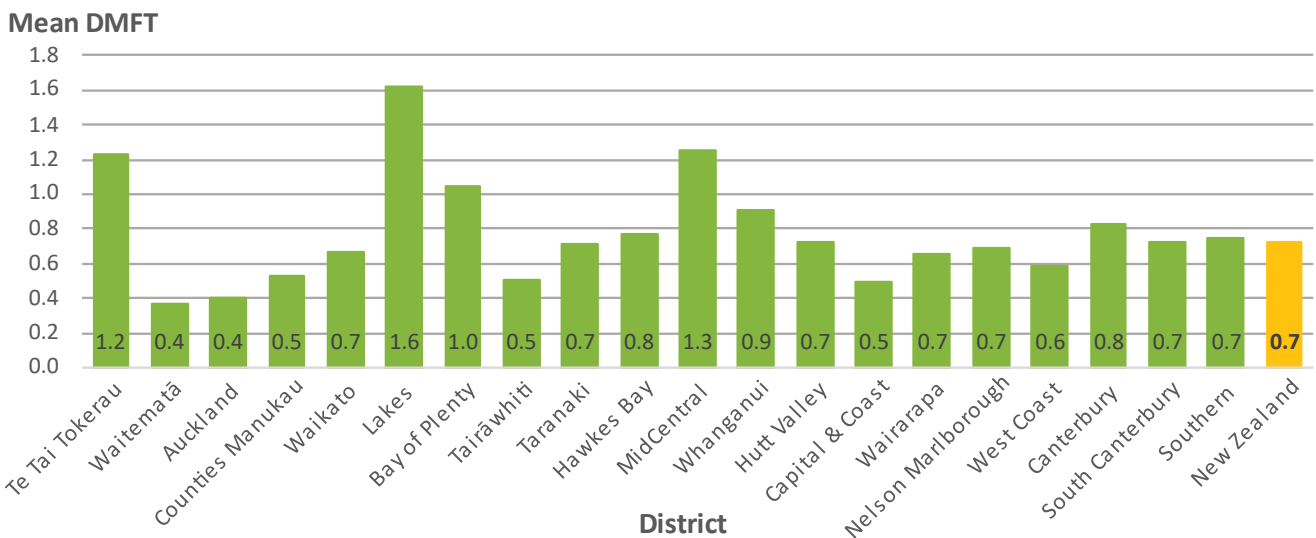
- Lakes (1.6)
- MidCentral (1.3)
- Te Tai Tokerau [Northland] (1.2)

Figure 7: Mean dmft of five-year-old children seen by community oral health services, by district, 2022



Source: Ministry of Health 2023

Figure 8: Mean DMFT of children in school-year eight seen by community oral health services, by District, 2022



Source: Ministry of Health 2023

Data for this indicator

This factsheet presents information on data collected for five-year-old children and children in school-year eight examined by community oral health services.

Data includes:

- The percentage of caries-free children. That is, those who have no past or current experience of dental decay.
- The mean number of decayed, missing and filled **primary** teeth (dmft) for five-year-old children and the mean number of decayed, missing or filled **permanent** teeth (DMFT) for children in school-year eight.

Note on data quality:

The total number of five-year-old children seen by oral health services declined by 25% (around 11,250 children) between 2000–2022, while the number of children in school-year eight seen declined by just 9% (around 5,000 children).

Each group was initially roughly equal in size in the year 2000. It is possible that the reduction in the number of five-year-olds (and, to a lesser extent, older children) could affect the apparent trends in their oral health over time. EHINZ has produced a report on the effects of the decline in children seen and the uneven geographic distribution of these children on the apparent trends in data. [This report can be viewed here.](#)

For additional information, see the [Metadata](#) sheet.

References

Ministry of Health. 2010. *Our Oral Health: Key findings of the 2009 New Zealand Oral Health Survey*. Wellington: Ministry of Health.

Ministry of Health. 2015. *Annual Update of Key Results 2014/2015: New Zealand Health Survey*. Wellington: Ministry of Health.

Ministry of Health. 2023. *Age 5 and Year 8 oral health data from the Community Oral Health Service 2022*. Wellington: Ministry of Health. URL: <https://www.health.govt.nz/nz-health-statistics/health-statistics-and-data-sets/oral-health-data-and-stats/age-5-and-year-8-oral-health-data-community-oral-health-service> (accessed May 2024).

Royal Society of New Zealand. 2014. *Health effects of water fluoridation: A review of the scientific evidence*. Wellington: Office of the Prime Minister's Chief Science Advisor and Royal Society of New Zealand.

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