

Oral health of children

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

Key facts



In 2019, 58.8% of the 39,600 five-year-olds seen by community oral health services had no history of dental caries and had 1.9 decayed missing or filled teeth on average.



In 2019, 68.5% of the 51,500 children in school year eight seen by community oral health services had no history of dental caries and averaged 0.7 decayed, missing or filled teeth.



Māori and Pacific children had poorer oral health compared to other ethnicities.



Children in Northland DHB had the worst oral health overall.

About oral health in children

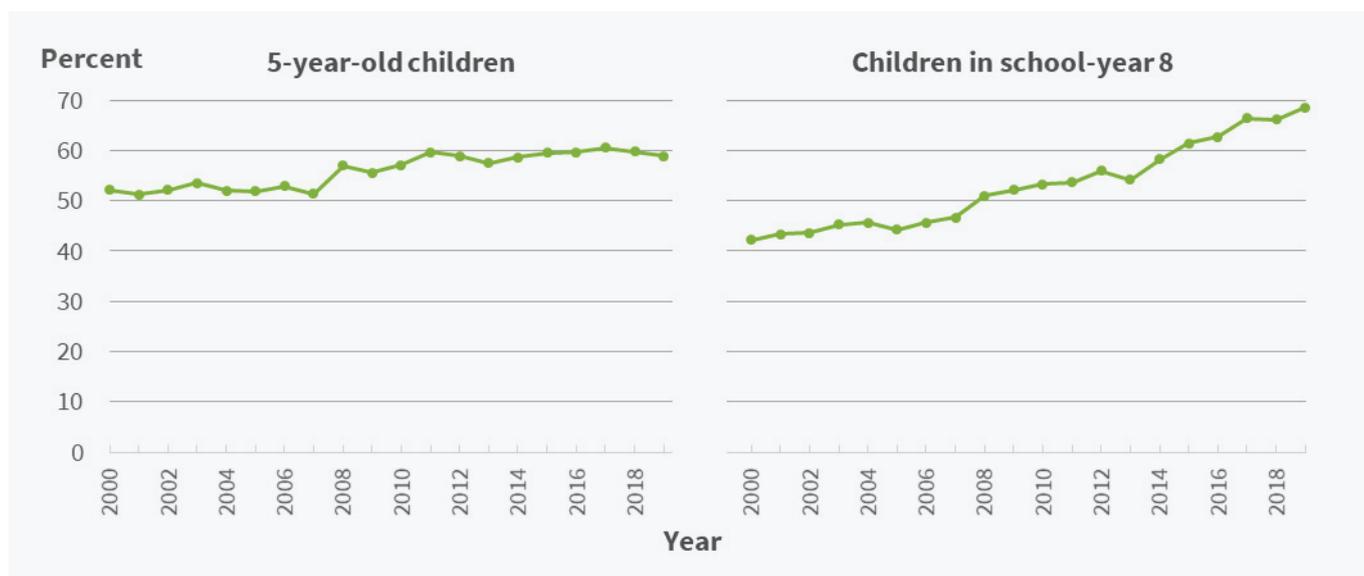
In children, good oral health has major benefits as it prevents pain, infection, and oral diseases such as dental caries (tooth decay). Children are at risk of dental caries as soon as their primary teeth ('baby teeth') begin to break through the gum at about the age of six months (Ministry of Health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

The oral health of older children continues to improve

Between the start of the millennium and 2019, 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 2019, 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 58.8% (Figure 1/left), but was fairly stable for most of this period, with most of the improvement occurring between 2007–2011. The proportion of caries-free children in school-year eight rose steadily from 42.2% to 68.5% (Figure 1/right).

Figure 1: Five-year-old children & children in school-year eight seen by community oral health services who were caries-free, 2000–2019



Note: The 95% confidence intervals are small and too close to the values plotted to be displayed.

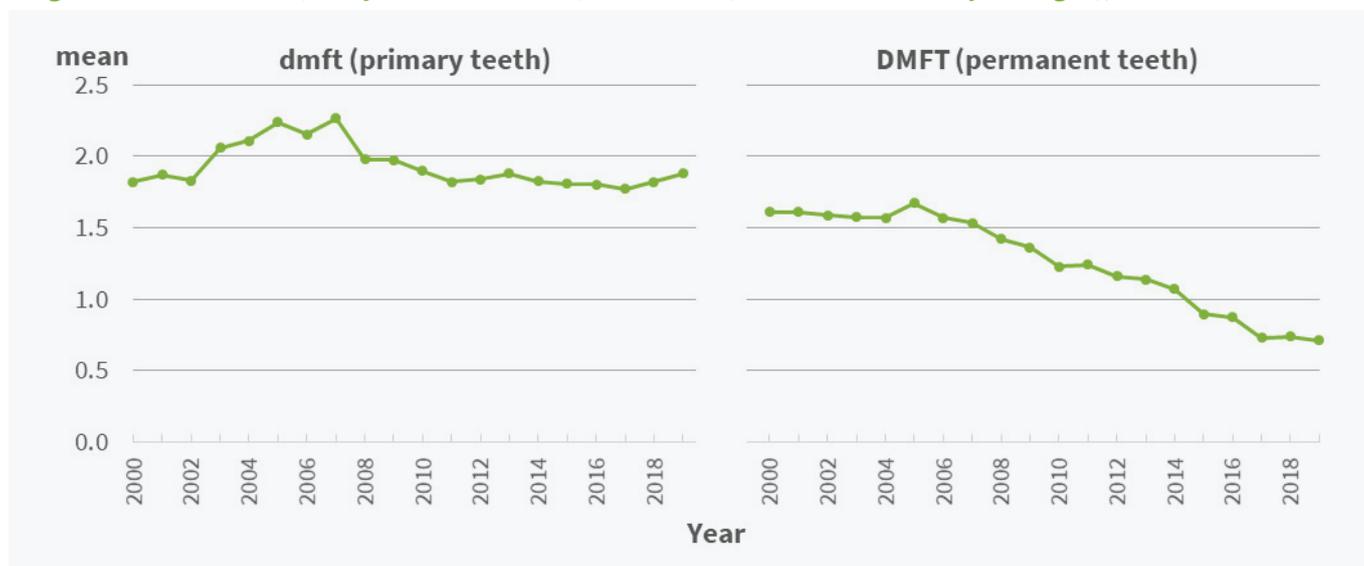
Source: Ministry of Health 2020

Among five-year-old children, the mean dmft (decayed missing and filled **primary** teeth) was 1.9 in 2019 (Figure 2/left). The mean dmft increased between 2000 and 2007 but was essentially unchanged through the 2010s.

This period 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 during the 2010s despite this, it appears that these fewer children may be carrying a higher burden of disease.

Between 2000 and 2019, 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 2019 compared to 2000.

Figure 2: Mean dmft (five-year-old children) and DMFT (children in school-year eight), 2000–2019



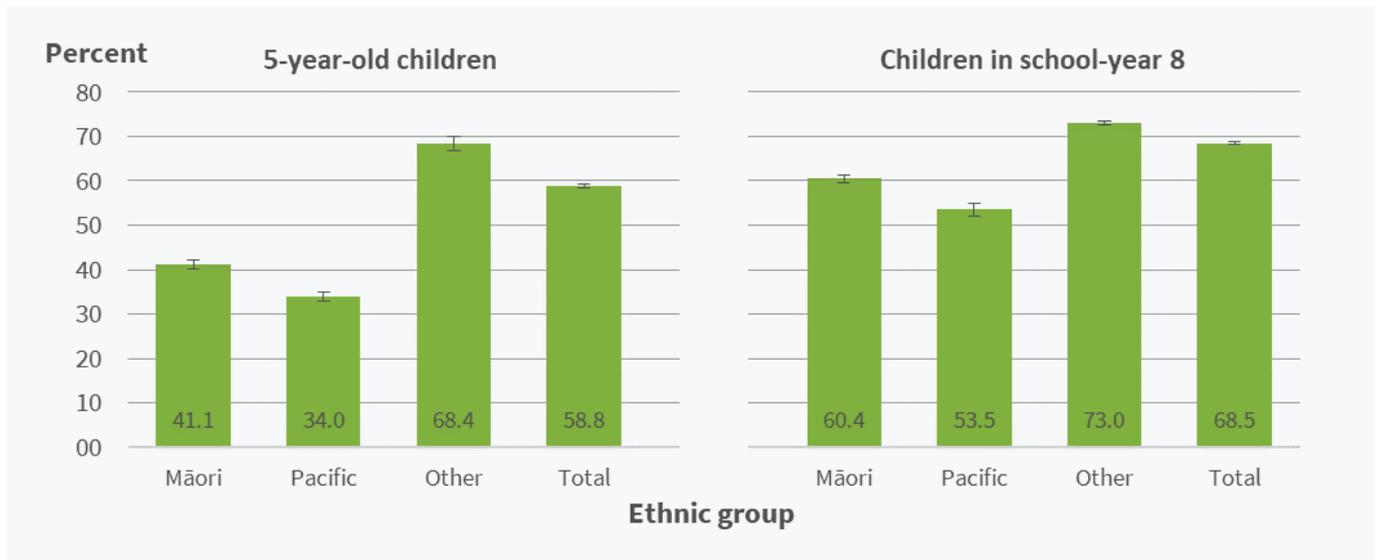
Note: There is insufficient information available to calculate confidence intervals for dmft/DMFT.

Source: Ministry of Health 2020

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.

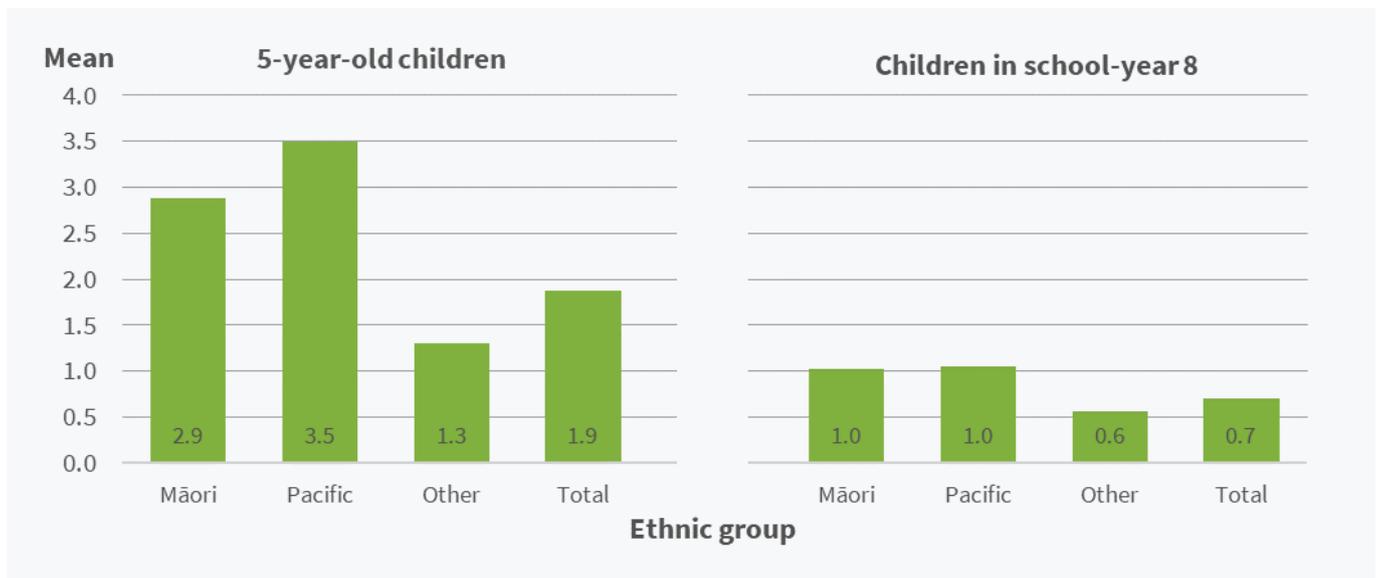
Figure 3: Five-year-old children & children in school-year eight seen by community oral health services who were caries-free by ethnic group, 2019



Note: 95% confidence intervals have been presented as error bars.
Source: Ministry of Health 2020

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 around three times as many decayed, missing or filled teeth (Figure 4). However, the contrast between different ethnicities was less pronounced in older children.

Figure 4: Mean dmft (five-year-olds) and DMFT (children in school-year eight) among children seen by community oral health services, 2019



Note: There is insufficient information available to calculate confidence intervals for dmft/DMFT.
Source: Ministry of Health 2020

Geographic breakdown of oral health statistics

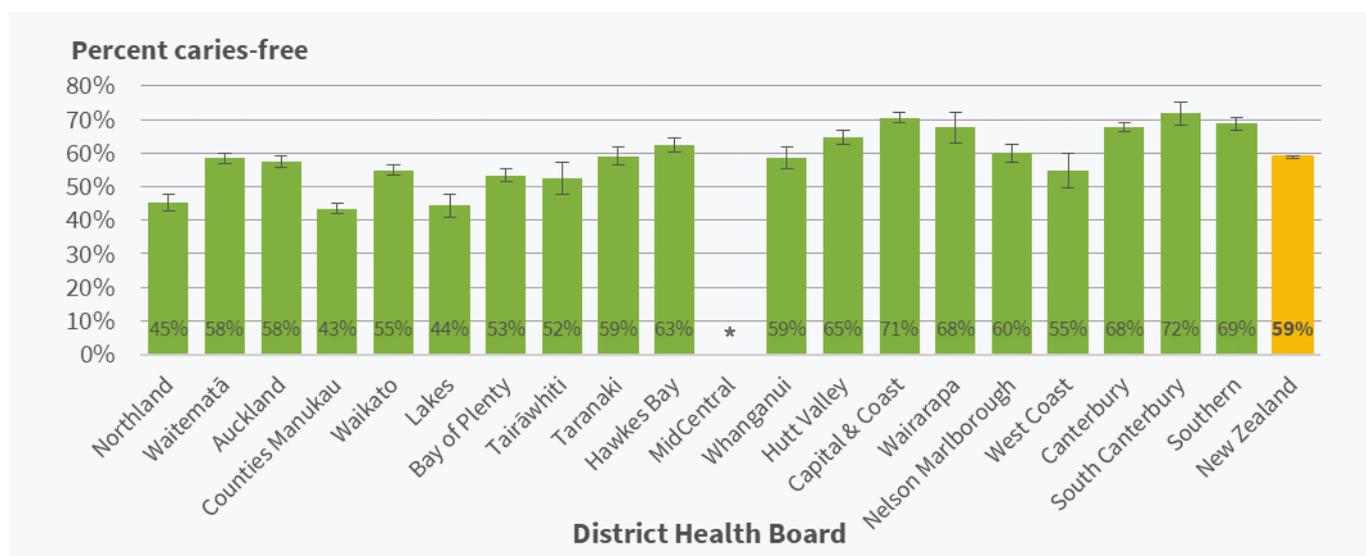
In 2019, the DHBs with the lowest percentage of caries-free five-year-olds (Figure 5) were:

- Counties Manukau (43.5%)
- Lakes (44.3%)
- Northland (45.3%)

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

- Northland (45.4%)
- Bay of Plenty (56.2%)
- Lakes (56.3%)

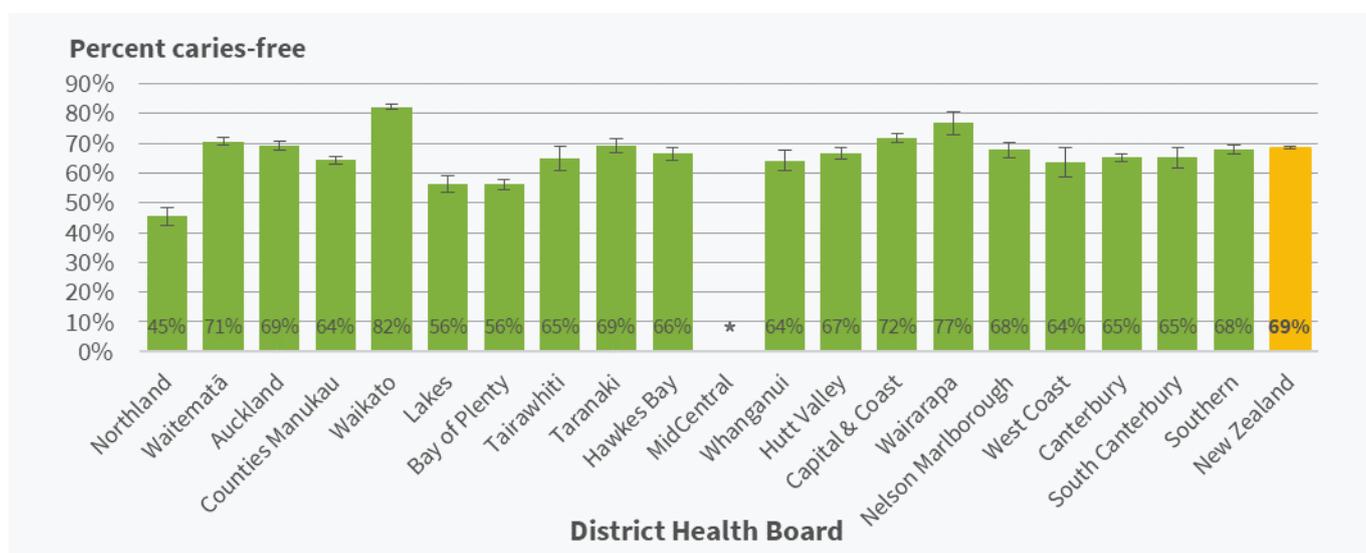
Figure 5: Percent of five-year-old children seen by community oral health services who were caries-free, by District Health Board, 2019



Note: Due to problems with data collection, MidCentral DHB's results were excluded from the source data. 95% confidence intervals have been presented as error bars.

Source: Ministry of Health 2020

Figure 6: Percent of children in school-year eight seen by community oral health services who were caries-free, by District Health Board, 2019



Note: Due to problems with data collection, MidCentral DHB's results were excluded from the source data. 95% confidence intervals have been presented as error bars.

Source: Ministry of Health 2020

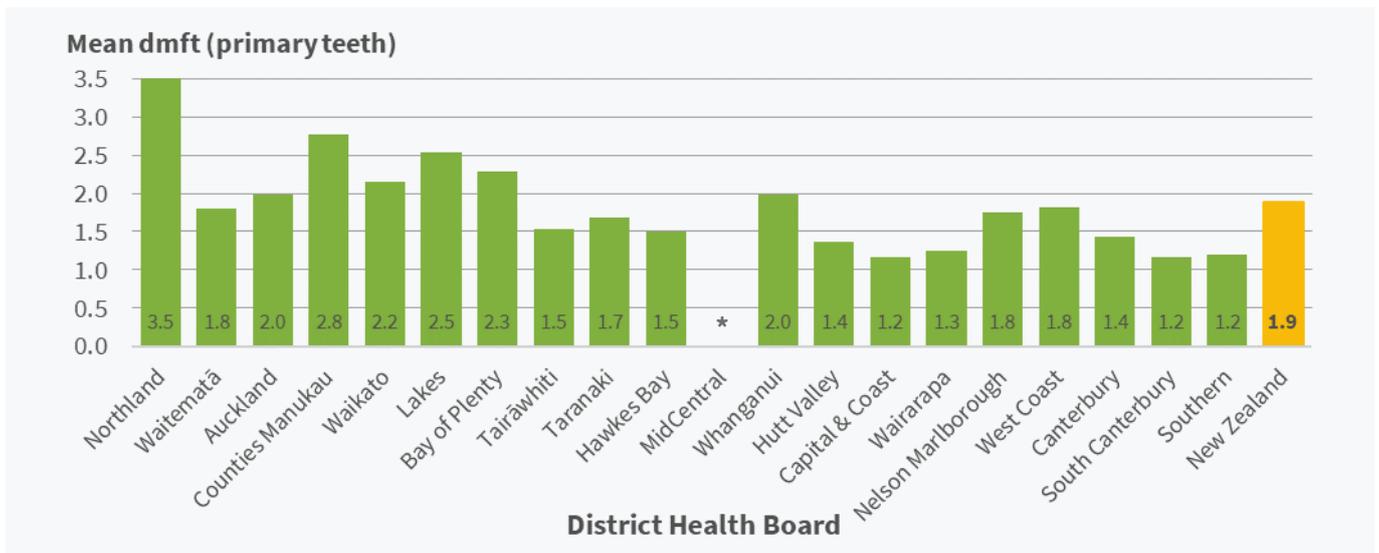
In 2019, the DHBs with the highest mean decayed, missing or filled primary teeth among five-year-old children (Figure 7) were:

- Northland (3.5)
- Counties Manukau (2.8)
- Lakes (2.5)

The DHBs with the highest mean decayed, missing or filled permanent teeth among children in school-year eight (Figure 8) were:

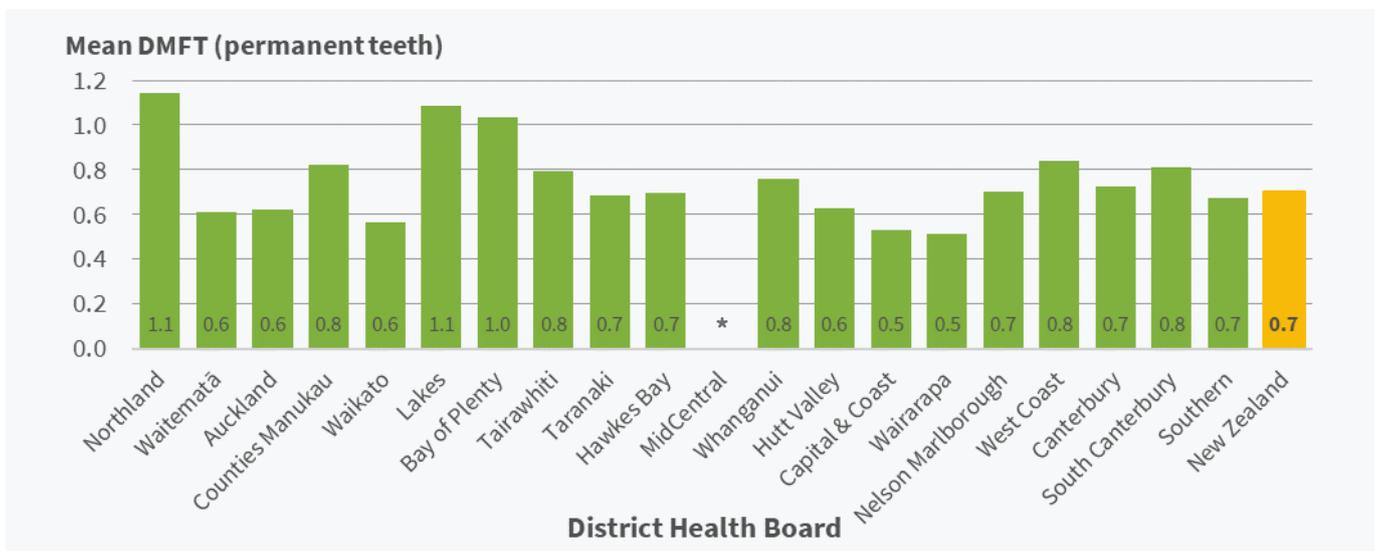
- Northland (1.1)
- Lakes (1.1)
- Bay of Plenty (1.0)

Figure 7: Mean dmft of five-year-old children seen by community oral health services, by District Health Board, 2019



Note: Due to problems with data collection, MidCentral DHB's results were excluded from the source data. There is insufficient information available to calculate confidence intervals for dmft/DMFT.
Source: Ministry of Health 2020

Figure 8: Mean DMFT of children in school-year eight seen by community oral health services, by District Health Board, 2019



Note: Due to problems with data collection, MidCentral DHB's results were excluded from the source data. There is insufficient information available to calculate confidence intervals for dmft/DMFT.
Source: Ministry of Health 2020

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 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.
- The percentage of caries-free children. That is, those who have no past or current experience of dental decay.

The total number of five-year-old children seen by oral health services declined by 19.2% (around 9,500 children) between 2000-2019, while the number of children in school-year eight seen rose by around 3,500. Each group was initially of roughly equal size at 49,000 and 47,000 children (respectively) in the year 2000. It is possible that the reduction in the number of five-year-olds could affect the apparent trends in their oral health over time.

Unless otherwise stated, all differences mentioned in the text between two values are statistically significant at the 5% level or less.

For additional information, see the metadata link below.

References

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

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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.

Other related topics include:

[Access to safe drinking water](#)

[Access to fluoridated drinking water](#)

[Waterborne diseases related to drinking water](#)

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Environmental Health Intelligence. 2021. *Oral health of children*. [Factsheet]. Wellington: Environmental Health Intelligence NZ, Massey University.

Further information

For descriptive information about the data