

# Evaluation of the Oral Health Toothbrush and Toothpaste Initiative

Summary – Phase 1 Implementation (December 2021–August 2023)

The primary goal of the Oral Health Toothbrush and Toothpaste Initiative (TTI) is to improve the oral health of preschool children who are most at risk of poor oral health outcomes.

‘Good oral health for all, for life’ is the strategic vision for oral health in New Zealand and starts with promoting oral health for the youngest and most vulnerable members of our society.

Around 60% of five-year-old children are free of dental caries. However, there are notable differences in oral health status associated with ethnicity, region and access to water fluoridation.

There are also sizable differences in the severity of oral disease in young children, particularly between Māori and non-Māori.

Poor oral health is largely preventable, and TTI provides an opportunity to address persistent and sizeable inequities in oral health outcomes (along with fluoridated water, a healthy diet, and access to publicly funded oral health services).

Participating providers give free toothbrushes, toothpaste and educational resources to preschool children and their whānau as part of their core services or targeted outreach activities.

## TTI was well implemented, and the design was fit-for-purpose

- The online order portal is easy to use and working well. A small number of issues were proactively addressed by NZHP.
- TTI includes providers with a preschool oral health focus and Māori and Pacific providers who are well connected in their communities.
- The mix of providers offers good coverage across New Zealand and good reach into Māori, Pacific and lower socio-economic communities.
- Products are being given out through regular programmes, services, events, and organisations that Māori and Pacific frequent.

- The inclusion of Māori and Pacific providers was an important design element. Nearly half (48%) of all products were given out by them, despite most starting later than Plunket or WCTO providers.

Table 1: Product distribution by organisation type (July 2022 to June 2023)

Organisation type	Total units (brushes and paste)	%
Māori/Pacific	458,812	48%
Plunket	315,928	33%
WCTO	186,438	19%
<b>Total</b>	<b>961,178</b>	<b>100%</b>

Source: June 2023 Oral Health report (Mallevalle 2023)

## Evaluation Methodology

This evaluation was a collaborative approach between Weaving Insights and Moana Connect:

- Weaving Insights employed a Kaupapa Māori approach, undertook all engagement with Māori providers, and analysis and reporting of Māori data.
- Moana Connect used the Kakala framework to gather insights from Pacific providers, undertook all engagement with Pacific providers, and analysis and reporting of Pacific data.

The evaluation draws on New Zealand Health Partnerships (NZHP) monthly reports (April 2022 to August 2023), three surveys (n=139) with the

TTI providers, six focus groups (n=36) with TTI providers, six interviews with providers and two interviews with TTI personnel. Moana Connect interviewed three Pacific providers, and 14 of 16 Pacific providers completed the survey.

### Evaluation limitations

Product distribution data is one key component of the evaluation. This data quantifies how many child and adult toothbrushes and toothpastes NZHP sent to TTI providers. The distribution data does not directly show ethnicity, income levels, or the age of those getting the products. In particular, the children and families in low socio-economic households data is mainly qualitative. Whānau experience is as reported by providers and not from whānau directly.

Overall, TTI is well positioned to improve the oral health of preschool children, by supporting whānau to embed good toothbrushing behaviours



Online portal

Providers order toothbrushes, toothpaste, and educational resources through an online portal.



140 TTI providers

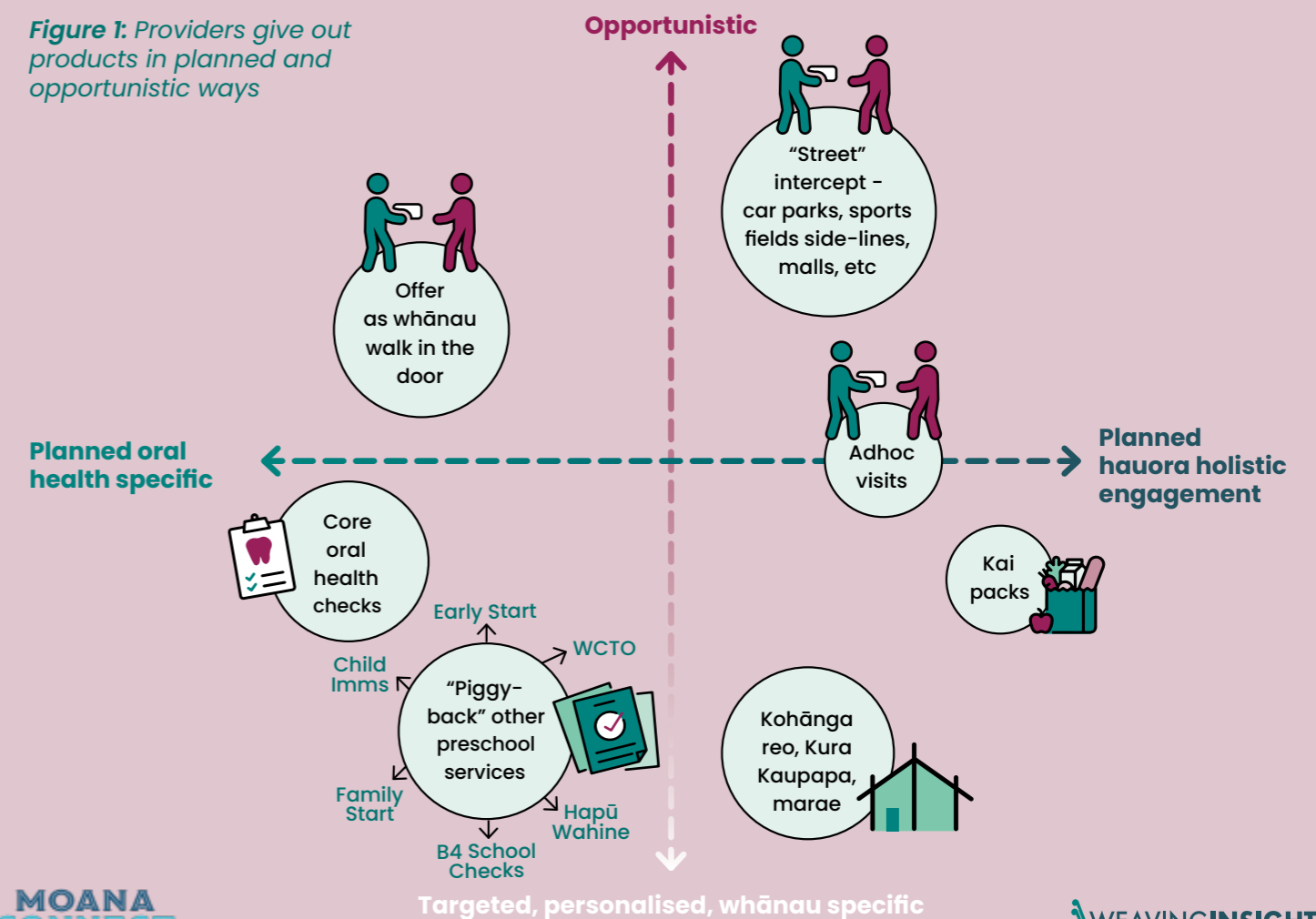
- Well Child Tamariki Ora
- Whānau Āwhina Plunket
- Māori
- Pacific



1.3 million products

Distributed to providers from December 2021 to August 2023.

Figure 1: Providers give out products in planned and opportunistic ways



## TTI is reaching the intended target groups of Māori and Pacific children and children and families in low socio-economic households

- Māori and Pacific providers distributed 48% of total units (toothbrushes and toothpaste) in the 2022-23 financial year. This is important because of the poorer oral health of Māori and Pacific children.
- For the children and families in low socio-economic households we have a limited amount of qualitative data only.

## Distribution of toothbrushes and toothpastes is relatively even across the country, with a few possible exceptions

- Most DHB districts got similar volumes of product per child, and per priority child. Priority children are aged 0 to 4 years and are Māori, Pacific or live in areas of high deprivation (the most deprived 20%).
- Whanganui and Wairarapa DHB districts need a closer look because the volume distributed per child, and per priority child (see chart below), may be much lower than in other DHB districts. It is possible that product initially distributed to other districts is being forwarded to them.

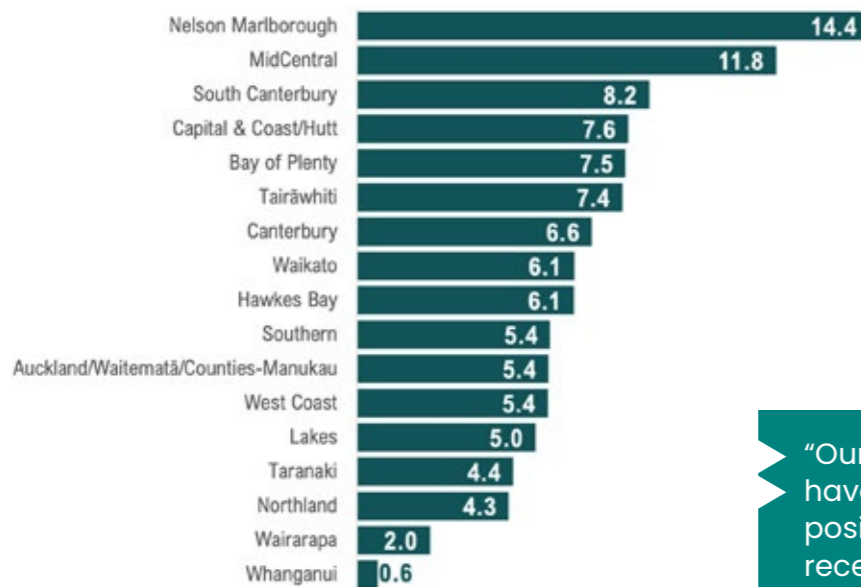


Figure 2: Total units (toothbrushes and toothpaste) per priority child, by DHB district



“Previously, we had to choose who we gave this resource to and who missed out. We would have 800-900 babies coming into our service but were only resourced with 350 toothbrushes and toothpaste. [Now] **we have enough for everyone.**”



“I wholeheartedly believe that this program is of immense value and has the potential to bring about significant improvements in oral health for these communities.

Preschool years are crucial for establishing lifelong habits, and by targeting tamariki at this stage, **we lay a solid foundation for their oral health.**

When equipped with toothbrushes, toothpaste and the knowledge of how to use them effectively, children are more likely to develop consistent oral hygiene habits that will benefit them well into adulthood.”

## TTI is valued and appreciated by whānau and providers



“One of the visible outcomes of this programme is the **transformation of smiles.** Parents and young children who receive toothbrushes and toothpaste can now maintain cleaner and healthier teeth. This not only brings physical benefits but also enhances their self-confidence.”



“This programme goes beyond the provision of oral care items, it **empowers tamariki and their families with knowledge** about maintaining good oral hygiene [so they can] take charge of their own oral health journey.”

“Our communities have been positively receptive of what the initiative offers, very much so. There’s that barrier of cost, and **sometimes they can’t afford a tube of toothpaste or toothbrushes.** It’s a real thing out here for all of our communities.”



“Whānau are **asking more questions and talking about their oral health now.** They are sharing experiences of how they are brushing their tamariki teeth morning and night now.”



“When families receive toothbrushes and toothpaste through this programme, they experience a sense of relief and gratitude. Knowing that their basic oral care needs are met **reduces their stress and enhances their overall well-being.**”

## Recent NZ Health Survey results show increases in toothbrushing behaviour by pre-schoolers.

The 2022/23 result (53.5%) is around 10 percentage points higher than pre-TTI years. There may be many factors that potentially contributed to this increase, including TTI.