



POLICY BRIEF | JULY 2020

Food Hardship and Early Childhood Nutrition

This policy brief summarises the key findings and policy implications from a study of food hardship and nutrition, which used data from the *Growing Up in New Zealand* longitudinal study of over 6,000 children.

The full report is available on the Ministry of Social Development's website:

Gerritsen S, D'Souza A, Goodsell-Matthews T, Pillai A, Swinburn B, Wall C. 2020. Food hardship and early childhood nutrition: Findings from *Growing Up in New Zealand* with a focus on food hardships for tamariki Māori and Pacific children. Wellington: Ministry of Social Development.

Context

The New Zealand Health Survey found that one in five children aged 2 to 14 years lived in households that were moderately-to-severely food insecure, and those children were more likely to have poorer nutrition, health and developmental outcomes.¹ Food insecurity is also associated with obesity,^{2,3} and New Zealand has the second highest rates of childhood obesity in the world.⁴ However, little is known about food insecurity among the nation's youngest children during their formative early years.

This study investigated the prevalence of three food hardships (a subset of food insecurity^{5,6}) collected at two points during early childhood (9-months and 54-months). The food hardships relate to the mother/primary caregiver's experience during the past 12 months of:



Being forced to buy cheaper food to pay for other things needed



Use of special food grants or food banks



Going without fresh fruit and vegetables to pay for other things

Key Findings

Food hardships were prevalent among families of infants and preschoolers, and characterised by large ethnic inequities from infancy.

At 9-months of age, almost half of mothers/primary givers reported being forced to buy cheaper food, and around one in eight (12%) used food grants or food banks or went without fresh fruit and vegetables to pay for other things over the previous 12 months.

All three food hardships were much more common in the first year of life compared to later in the preschool years.

Indicators of nutrition in early childhood were suboptimal overall, particularly in the first year of life.

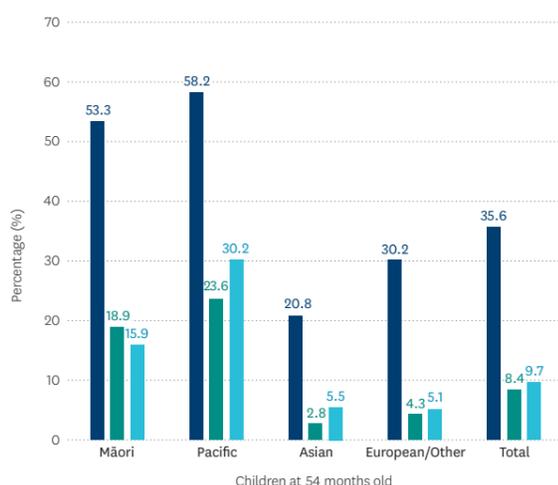
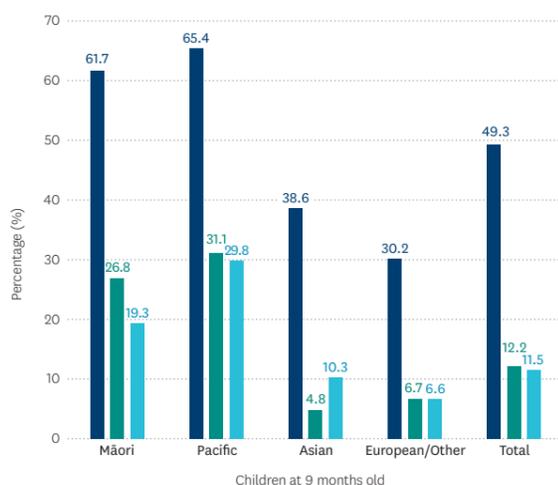
68% of all infants were breastfed for less than 12 months.

Two out of every three infants did not meet the guidelines for fruit and vegetable intake (37% had fruit twice a day or more and 33% had vegetables twice a day or more).

By 9-months, 51% of infants had tried unhealthy food (defined as sweets, chocolate, hot chips or potato chips); and 37% had tried unhealthy drinks (defined as coffee, fruit juice, soft drinks, tea and herbal drinks).

12% of 4-year olds were drinking soft drinks or energy drinks 3 or more times per week.

Figure 1: Food hardships reported by mothers/primary caregivers when child aged 9-months and 54-months, by child ethnicity



Forced to buy cheaper food to pay for other things Made use of a special food grant or food bank Gone without fresh fruit and veg to pay for other things

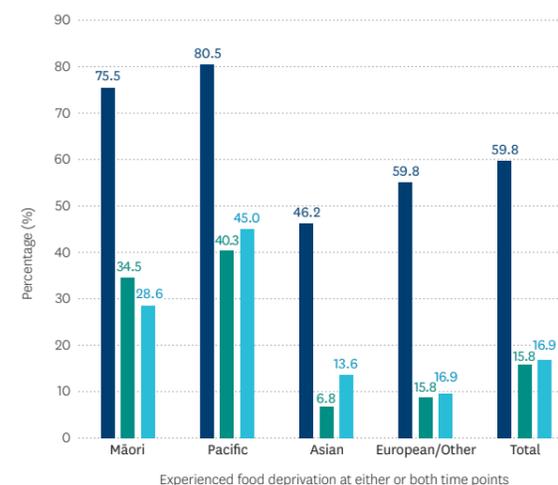
One in four Māori 9-month olds and almost one in every three Pacific 9-month olds lived in households that reported use of a special food grant or food bank in the previous year compared to one in fifteen European infants.

Households move in and out of food hardship during early childhood: more children experience food hardship than measurement at one time-point might suggest.

Almost two in every three mothers reported that they were forced to buy cheaper food to pay for other things they needed at either or both of the early childhood interviews.

Although the overall proportion of children experiencing food hardship reduced between 9 and 54 months of age, food hardships became more common among households with markers of low socio-economic position at 54-months of age.

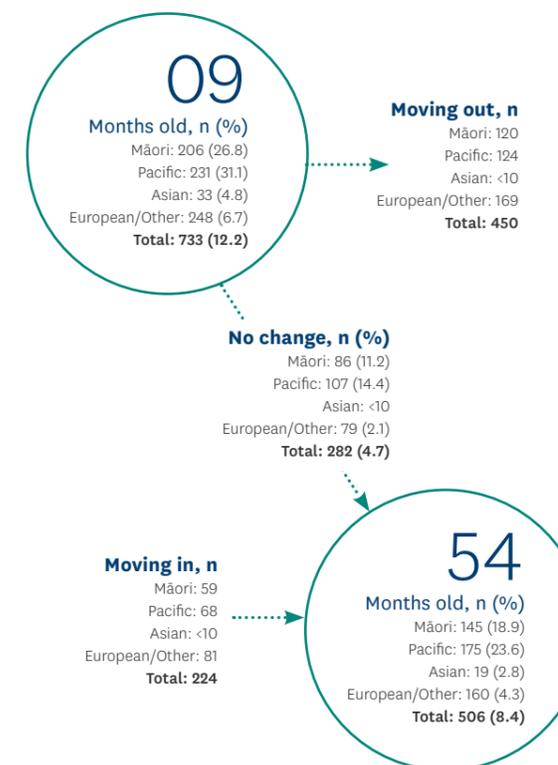
Figure 2: Food hardships reported by mothers/primary caregivers at either or both early childhood ages (9- and/or 54-months), i.e. exposure at some point during early childhood



Forced to buy cheaper food to pay for other things Made use of a special food grant or food bank Gone without fresh fruit and veg to pay for other things

About 40% of Pacific children and 35% of tamariki Māori lived in households that made use of special food grants or food banks at either 9- and/or 54-months of age.

Figure 3: Movement in and out of using special food grants or food banks in the past 12 months, when child aged 9-months and 54-months, by child ethnicity





All measures of food hardship in this study were associated with poorer nutrition.

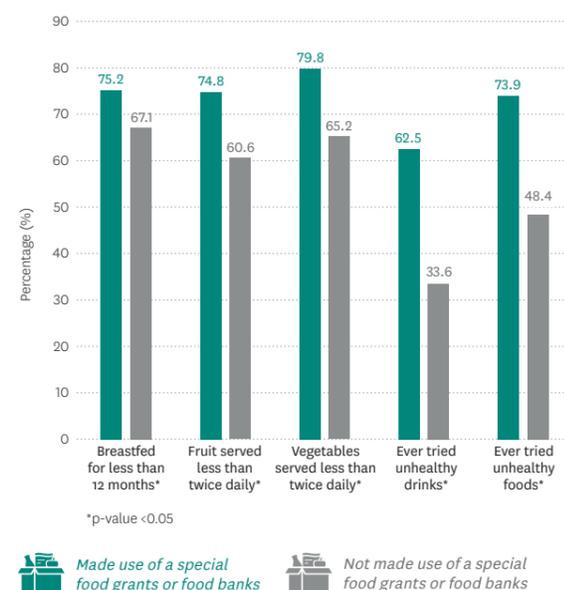
Compared to other children, those experiencing food hardship were more likely to have:

1. Stopped breastfeeding before their first birthday.
2. Had fewer servings per day of fruit or vegetables at 9-months of age.
3. Had tried unhealthy food and drinks before 9-months of age.
4. Low or moderate variety of fruit or vegetables at age 4 years.
5. Consumed three or more soft drinks a week at age 4 years.

Children in food hardship were more likely to consume unhealthy food and drinks and had a lower variety of fruit and vegetables than those from similar socioeconomic backgrounds who were not in food hardship.

After adjusting for differences in household income and size, child ethnicity, mother's age and education, and neighbourhood deprivation, all three indicators of food hardship remained statistically associated with poor indicators of child nutrition. Children in families who reported using a food bank or food grant were around 45% more likely to have tried unhealthy food or drink at 9 months compared to children with similar socioeconomic characteristics whose families did not use a

Figure 4: Indicators of poor infant nutrition when the mother/primary caregiver made use of special food grants or food banks in the past 12 months, compared to other infants



All three measures of food hardship were significantly associated with poorer nutrition for all of the indicators assessed in this study and a similar pattern was found for all ethnic groups.

food bank or food grant. They were also more likely to have high soft drink intake at age 4 years, but results were only statistically significant for tamariki Māori after adjustment. Food grant or food bank use was also associated with low to moderate variety of fruit and vegetable intake at 4 years even after adjusting for all of the above socioeconomic characteristics.



Implications of this study

Food hardship was prevalent in this cohort of New Zealand children and was highest during the first year of life, a crucial period for growth and development. The extent of ethnic inequities affecting young children was concerning, particularly in the context of te Tiriti o Waitangi. The situation is unlikely to have improved from when the data were collected in the early 2010s as material deprivation rates have remained high and food bank use has increased. Under the UN Convention on the Rights of the Child, Aotearoa New Zealand has a duty to ensure that all children have access to adequate, nutritious food; have healthy lives; are free from discrimination; and that their parents/carers have an adequate standard of living and are well-supported. The existing food crisis faced by many families has worsened with the COVID-19 pandemic and will need urgent and ongoing policy attention.

The patterns of food hardship found in this research are consistent with a complex system.⁷ Hence, policies to reduce the prevalence of food hardship and associated poor nutrition require multi-pronged, te Tiriti-based and culturally appropriate actions as described in previous research and policy recommendations.⁸⁻¹¹ Nutritional indicators for the whole preschool cohort, particularly 9-month old infants, were of concern, with suboptimal breastfeeding duration, low variety of fruit and vegetables, and exposure to unhealthy food and drinks from a young age. The main finding that the relationship between food hardship and young children eating unhealthy food and drink and a low variety of fruit and vegetables remained after taking into account household socioeconomic characteristics, suggests that families experiencing food hardship may be more susceptible to the wider 'obesogenic' food environment, that is, the reduced accessibility of healthy food options and easier availability and promotion of unhealthy food and drinks.

This research supports the policy directions of the Child Poverty Reduction Act and the Child and Youth Wellbeing Strategy, including the focus on food security. It is also consistent with the Welfare Expert Advisory Group's finding that family incomes are seriously inadequate to provide a basic standard of living for children and families.⁷ While complex, there is considerable expertise, evidence and experience in Aotearoa New Zealand to support work to address food hardship and poor nutrition.

References

1. Ministry of Health. Household Food Insecurity among Children: New Zealand Health Survey. Wellington: Ministry of Health; 2019.
2. Au LE, Zhu SM, Nhan LA, Plank KR, Frongillo EA, Lora BA, Gurzo K, Ritchie LD. Household food insecurity is associated with higher adiposity among US schoolchildren ages 10-15 years: The healthy communities study. *The Journal of Nutrition* 2019; 149(9): 1642-50.
3. Burke MP, Frongillo EA, Jones SJ, Bell BB, Hartline-Grafton H. Household food insecurity is associated with greater growth in body mass index among female children from kindergarten through eighth grade. *Journal of Hunger & Environmental Nutrition* 2016; 11(2): 227-41.
4. UNICEF. The State of the World's Children 2019. Children, Food and Nutrition: Growing well in a changing world. New York: UNICEF; 2019.
5. DePolt RA, Moffitt RA, Ribar DC. Food stamps, temporary assistance for needy families and food hardships in three American cities. *Pacific Economic Review* 2009; 14(4): 445-73.
6. Slack KS, Yoo J. Food hardship and child behavior problems among low-income children. *Social Service Review* 2005; 79(3): 511-36.
7. Signal LN, Walton MD, Ni Mhurchu C, Maddison R, Bowers SG, Carter KN, Gorton D, Heta C, Lanumata TS, Mckerchar CW. Tackling 'wicked' health promotion problems: a New Zealand case study. *Health Promotion International* 2013; 28(1): 84-94.
8. Mackay S, Sing F, Gerritsen S, Swinburn B. Benchmarking Food Environments 2020: Progress by the New Zealand Government on implementing recommended food environment policies & priority recommendations. Auckland: The University of Auckland; 2020.
9. Welfare Expert Advisory Group. Whakamana Tāngata. Restoring dignity to social security in New Zealand. Executive Summary Wellington: Welfare Expert Advisory Group; 2019.
10. Bowers S, Carter K, Gorton D, Heta C, Lanumata T, Maddison R, Mckerchar C, Ni Mhurchu C, O'Dea D, Pearce J. Enhancing food security and physical activity for Māori, Pacific and low-income peoples. Wellington: CTRU, University of Auckland, GeoHealth Laboratory, University of Canterbury, HePPRL, University of Otago; Te Hotu Manawa Māori; 2009.
11. Mckerchar C, Bowers S, Heta C, Signal L, Mateo L. Enhancing Māori food security using traditional kai. *Global Health Promotion* 2015; 22(3): 15-24.

Key recommendations for policy:

1. **Policy to reduce food hardship in childhood requires specific attention to early childhood** as well as school-aged children, particularly for infants and families in the first year of life. Food programmes should aim to include a variety of early childhood settings (including marae) as well as schools and kura kaupapa.
2. **Monitoring of food hardship and nutrition should include adequate numbers of children less than five years of age**, including infants less than one year, so the data can be disaggregated by age and ethnicity and monitored over time. Regular monitoring of children's nutrition will be especially important post-COVID-19.
3. **Policy to address food hardship should be made in meaningful partnerships with, and advance the aspirations of Māori and Pacific** whānau and communities, given the marked ethnic inequities, and the cultural significance of food.
4. **Policy to reduce the prevalence and nutritional consequences of food hardship should be part of a comprehensive food policy** developed to improve nutrition and reduce obesity more widely. Priority actions should encompass:
 - a. **Addressing the determinants of low family income** as recommended by the Welfare Expert Advisory Group, including, but not limited to, ensuring adequate social assistance for families with young children.
 - b. **Local and national initiatives to increase the affordability, availability and promotion of healthy food**, including strengthening Māori food systems.
 - c. **Local and national initiatives to protect children** and their parents and caregivers from unhealthy food environments, such as excessive availability, promotion and marketing of unhealthy food and drink products.
 - d. **Fiscal measures** to make unhealthy foods less affordable and healthy foods more affordable.
 - e. **Addressing barriers to breastfeeding**, including structural determinants of early breastfeeding cessation (e.g. improving employment conditions and expanding parental leave provisions).
5. **Evaluation of new policy initiatives** to ensure they are effective, appropriate, and reduce inequities.