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# AFFORDABILITY AND ACCESSIBILITY OF HEALTHY FOOD FOR CHILDREN: BACKGROUND PAPER

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Prepared by Delvina Gorton, National Nutrition Advisor

## **PURPOSE**

Healthy food supports a healthy heart and a healthy life. In doing so, it helps children/tamariki get the right start towards fulfilling their lifetime. It is a priority for the Heart Foundation to support healthier eating for children/tamariki and families/whānau. However, two out of five households in New Zealand experience some aspect of food poverty.<sup>1</sup> Food poverty occurs when people do not have assured access to sufficient affordable, nutritionally adequate and acceptable food.

The purpose of this background paper is to describe the issue of food poverty and its implications for New Zealand's children/tamariki. It then discusses potential policy options and actions aimed at ensuring all New Zealand families/whānau are able to access and afford the food they need for a healthy life. These policy options are intended to give guidance on actions we can all advocate for and take in order to reduce food poverty.

## **BACKGROUND**

### **Poverty in New Zealand**

We all want our children/tamariki to get the most out of life and be able to live their lives to the full. However, statistics show that one-in-five children/tamariki live in poverty.<sup>2</sup> On an individual level, poverty robs children of the opportunity to make choices that will allow them to live a long and healthy life. However, it also costs the country as a whole. The Children's Commissioner report on solutions to child poverty estimated that child poverty costs the country \$6-8 billion per year.<sup>3</sup>

Internationally, we do not compare well. We spend less than the OECD average on young children, and the OECD has reported that "material conditions for Kiwi kids are relatively poor. Average family incomes are low by OECD standards, and child poverty rates are high".<sup>4</sup>

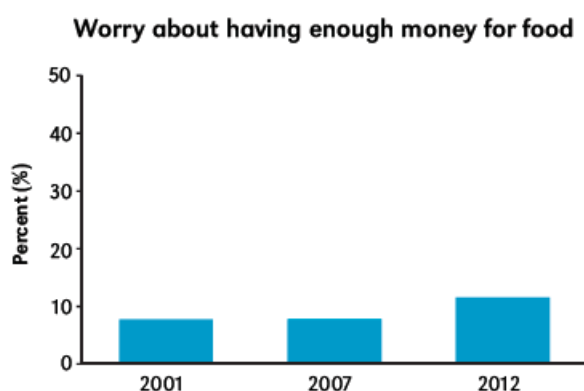
## Food poverty in New Zealand

Poverty is closely linked with food poverty. Two-out-of-five households in New Zealand experience some aspect of food poverty.<sup>1</sup> For one-in-fourteen households, it is so severe they must rely on other people, grants or food banks to obtain the food they need.

The SOFIE longitudinal study found food poverty is more common amongst females, sole parents, unmarried people, those in younger age groups, Māori and Pacific peoples, those with worse self-rated health, unemployed or people with a lower socioeconomic status.<sup>5</sup> Ethnic inequalities were confirmed in the latest Adult Nutrition Survey (2008/09)<sup>1</sup> which found 34% (men) to 43% (women) of Māori adults could only sometimes or never afford to eat properly. This was in comparison to 17.3% (men) to 21.7% (women) of the general population. The earlier Children’s Nutrition Survey (2002) found 40% of Māori households with children felt stressed because of not having enough money for food (compared to 24% for the general population).<sup>6 7</sup> For Pacific peoples rates are even higher, with half of all Pacific households experiencing some form of food poverty.<sup>6</sup>

Food poverty has increased since it was first measured in 1997. The Adult Nutrition Survey found reported rates of food poverty had increased from approximately one-out-of-five to two-out-of-five households between 1997 and 2008/09.<sup>1</sup> Similarly, the Youth 2012 survey of secondary school students found an increasing number of students reported that parents worried about having enough money for food.<sup>8</sup> There was an increase from 8% in 2001 and 2007 to 12% in 2012 (see Figure 1). The trend was especially notable in students 15 years of age and under.

**FIGURE 1: PERCENTAGE OF STUDENTS REPORTING PARENTS WORRYING ABOUT HAVING ENOUGH MONEY FOR FOOD<sup>8</sup>**



The impact of food poverty on quality of food eaten was highlighted by a student in the Youth 2012 survey, who commented that:

*“Good food is expensive – [bottled] water is more expensive than Coke. It doesn’t make sense, eh?”*

The New Zealand Adult Nutrition Survey 1997 and Children’s Nutrition Survey 2002 found participants in less food secure households had a lower intake of nutrients obtained from fruit, vegetables and dairy products, and a higher intake of fat.<sup>6 7</sup> Other research has found food poverty is associated with children eating less fruit, vegetables and brown bread, and missing breakfast.<sup>9</sup>

### **Implications of poverty and food poverty for children/tamariki**

Poverty has serious implications for our children/tamariki. It can impact on their health, wellbeing, and educational achievement and contributes to disability and illness. It may also lead to lower economic productivity in adulthood and higher health care costs.<sup>10</sup>

Families living in poverty are less likely to have eating patterns that promote good health,<sup>11</sup> putting them at greater risk for nutrition-related disease. For children, this can have far-reaching implications. In-utero and early life nutrition is associated with risk of non-communicable disease in adulthood.<sup>12</sup> Furthermore, unhealthy eating patterns in childhood are associated with risk factors such as type 2 diabetes, high blood pressure, and dyslipidaemia.<sup>13</sup> Longitudinal studies show that these risk factors, as well as overweight and obesity, can persist into adulthood and increase risk of heart disease.<sup>14 15 16</sup> Throughout life, dietary risk factors such as a high salt and saturated fat intake, low vegetable and fruit intake and high body mass index have been shown to be responsible for 11.4% of all healthy years of life lost in New Zealand.<sup>17</sup>

The implications of food poverty (as distinct from poverty) have also been examined. For children, it puts them at risk of a range of physical, behavioural and psychosocial outcomes. They are more likely to lack concentration at school, have strained family relationships, and miss school.<sup>18 19 20</sup> There are links between food poverty and poor health, compromised immunity, low life satisfaction, violent behaviour, and frequent mental and physical symptoms in children.<sup>9 21 22</sup> While it may seem counter-intuitive, food poverty has also been associated with overweight and obesity in children, at least in part due to the food environment and affordability and cost of healthy food.<sup>23</sup>

This demonstrates that food poverty can and does have lasting implications for our children/tamariki. It also denies them their basic human right to a “standard of living adequate for health and wellbeing ... including food”.<sup>24</sup>

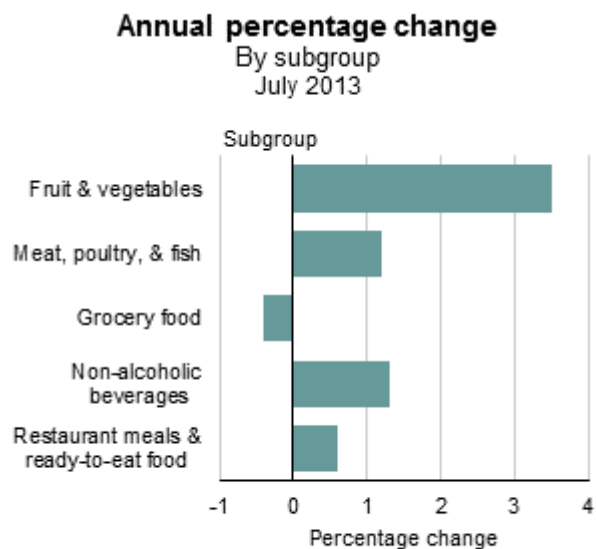
## AFFORDABILITY OF HEALTHY FOOD

Affordability of healthy food is determined both by its relative cost and available income. Insufficient income is one of the main, but by no means the only, factors associated with food poverty.<sup>25</sup> For people on a low income, the attributes of a food are weighed against price and money available, and decisions boil down to quantity per unit price.<sup>26</sup> Foods seen as filling and providing value for money are favoured. Energy-dense, nutrient-poor foods are often convenient and satisfying with no waste – parents know the kids are going to eat and enjoy them.<sup>27</sup>

As healthy food can be more expensive than less healthy food, cost can be a significant barrier to healthier eating.<sup>28 29 30</sup> Māori, Pacific, and low-income households identified cost of food and lack of money as a barrier to making healthier food choices.<sup>28</sup> Cost was also cited as a barrier to increasing fruit and vegetable intake by a quarter of participants in the 1997 National Nutrition Survey (this question was not asked in the more recent survey).<sup>31</sup> Similarly, the APPLE study found cost prevented 45% of parents buying healthier foods for their children.<sup>32</sup>

The actual difference in cost between healthy and less healthy food has been compared. Analysis of supermarket data from 2007 showed that a healthier food basket cost 7% more per week (excluding fruit and vegetables) than a less healthy food basket.<sup>33</sup> This is supported by international literature that shows a healthy diet costs more than an unhealthy one.<sup>34-38</sup> Furthermore, Australian research shows the cost of healthy food has risen more over the years than the cost of less healthy food.<sup>34</sup> There are indications the same may have happened in New Zealand. The Statistics New Zealand food price index shows that over the last year, the price for vegetables and fruit has increased more than for any other food group (Figure 2).<sup>39</sup>

FIGURE 2: CHANGE IN FOOD PRICE INDEX



Source: Statistics New Zealand

Issues of affordability are likely to be further compounded for people living in rural areas. For example, many people in Northland live some way from a supermarket and rely on smaller local convenience stores to top up groceries in between supermarket visits.<sup>40</sup> A food cost survey found it was \$11/week more expensive to purchase perishable goods (fruit, vegetables

and dairy products) for a family of four at the convenience store than the supermarket. A larger ‘top up’ shop cost an extra \$33.70 at a convenience store compared to a supermarket. There were especially large differences in the cost of meats and poultry, dairy, and breads and cereals (27%-32% price difference).<sup>40</sup>

### Expenditure on food in New Zealand

The causes of food poverty are often multi-factorial; however the main determinant is inadequate income. The outcome being that households end up with insufficient money to afford the healthy food they need.<sup>25</sup> As food is a ‘discretionary’ part of the household budget, it is often where cuts are made in order to pay fixed bills, leaving insufficient money to purchase food.

The average weekly household expenditure on food in the 2009/10 Household Economic Survey was \$177.70 (Figure 3)<sup>41</sup> (the average household size is 2.65 persons<sup>42</sup>). This included food eaten outside the home but excluded alcohol.

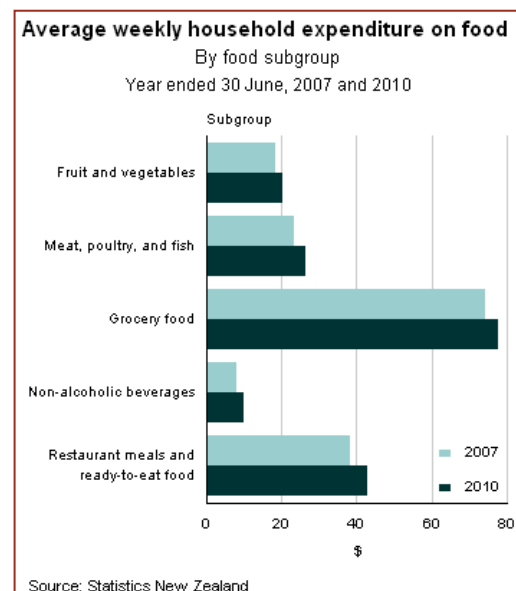
Each year the University of Otago conducts a market survey to determine the cost of a food basket that meets food and nutrition guidelines, in different areas of New Zealand.<sup>43</sup> The estimated cost for food for an adult man in Auckland would be \$66/week for a basic diet, a woman \$63 and an adolescent boy \$84. Costs are 30% higher for a moderate food basket, which allows for an increase in the variety of meats, fish, fruits and vegetables and the inclusion of some convenience foods. These estimates do not include food eaten outside the home, but allow for sufficient food to be eaten at home.

Based on the Otago data, Regional Public Health in Wellington quantified the financial difficulties faced by those on low incomes to purchase a healthy diet. Low-income families on the minimum wage or a benefit would need to spend between 23-53% of their net income and 42-75% once rent was deducted, to purchase this basic healthy diet.<sup>44</sup>

### PHYSICAL ACCESSIBILITY OF HEALTHY FOOD

The physical accessibility of healthy food relates to how well people are able to locate and obtain healthy food. It encompasses availability of healthy food, store location and transport to get to stores.

FIGURE 3: HOUSEHOLD ECONOMIC SURVEY



Research suggests that healthier food may be harder to access in some areas. Under the Te Wai o Rona Diabetes Prevention Strategy, an assessment of price and availability of a select sample of food in the Waikato/Lakes region was undertaken in 2005.<sup>45</sup> They found that healthier versions of foods were more commonly available in urban compared with rural areas, and that healthier versions of foods were more expensive than regular versions, more so in urban areas.

A geographical area with poor access to healthy and affordable food has been termed a 'food desert'.<sup>46</sup> Food deserts are common in the United States, but this does not appear to be the case in New Zealand.<sup>47</sup> Here, access to food stores may be determined more by access to transport than physical location, as has been found in Australia.<sup>48</sup> Furthermore, low-income areas have a greater total density of food outlets than high-income areas, but this includes a greater density of fast food.<sup>47</sup> This was demonstrated in East Porirua in Wellington, which had a much higher ratio of unhealthy to healthy food outlets than its more affluent neighbour of Whitby, and the healthier options were usually more expensive.<sup>49</sup> Data also shows that fast-food outlets and convenience stores cluster around schools, and to a much greater extent in more socially-deprived areas.<sup>50</sup> Thus, instead of being food deserts, low-income areas are food swamps where cheap and unhealthy food is more readily accessible (both physically and financially) than in higher income areas.<sup>49</sup>

## **SUMMARY OF ISSUES**

- Healthy food is important for children/tamariki for growth and development, and to live a healthy life.
- Many families in New Zealand (two out of five households) experience food poverty on a regular basis and are unable to afford and/or access the healthy food they need for their children/tamariki. Prevalence is higher in Māori and Pacific households.
- Food poverty has long term implications for health and wellbeing of our children/tamariki.
- Disposable income may be insufficient for people on a low income to afford a basic healthy diet, and food pricing favours less healthy foods.
- Less healthy food is more accessible in lower income areas.

## **AREAS FOR ACTION TO REDUCE FOOD POVERTY FOR CHILDREN**

The causes of food poverty are multi-factorial in nature and therefore intervention and collaboration is required at multiple levels. This includes action by local and national government through to communities and families. Comprehensive intervention is likely to be most effective if 'top-down' policy levers are utilised alongside 'bottom-up' community interventions and actions.<sup>25</sup>

It should be noted that while the causes of food poverty have been well examined, there has been less solution-oriented research.<sup>25</sup> Thus, it is difficult to establish the most effective interventions.<sup>51</sup> However, what is clear is that community-level interventions must be supported by policy level intervention in order to make a substantial difference.

Potential areas for action are presented in the summary table below. These draw on a variety of sources such as the Children Commissioner’s report into Solutions to Child Poverty in New Zealand,<sup>3</sup> the Enhance report on Enhancing Food Security and Physical Activity for Māori, Pacific and low-income peoples,<sup>52</sup> ANA Vision 2022, and work by Regional Public Health and Toi Te Ora – Public Health Service. From the areas for action listed, priorities are interventions that improve affordability of healthy food either through increased money to spend on food or improving the relative price of healthier food.

Area for action <sup>53</sup>	Population-wide interventions		Interventions for individuals
	National	Sub-national	
Public policy	<p>Implement the recommendations of the Expert Advisory Group on Solutions to Child Poverty.<sup>3</sup></p> <p>Implement a national Children’s Food and Nutrition Strategy, aimed at reducing the burden of chronic disease and improving affordability and accessibility of healthy food for families.</p> <p>Implement equitable and fair fiscal and social policies to support liveable incomes that ensure everyone has the minimum income needed for healthy living.<sup>54</sup> Examples of tax and economic tools are provided in the Children’s Commissioner’s report.<sup>3</sup></p> <p>Effective regulation to limit the marketing of unhealthy food to children, as it creates demand for unhealthy products by children<sup>55</sup> (see Heart Foundation position paper).</p> <p>Put measures in place to ensure schools and preschools provide healthy food environments.</p> <p>Protect natural environments so that they are safe for gathering and harvesting food and are sustainably managed.</p> <p>Monitor prevalence of food poverty at a national level and set specific targets for reducing food poverty.</p> <p>Fund research into solutions to food poverty.</p>	<p>Implement initiatives to reduce food waste at all stages of the food supply chain (see FAO toolkit on reducing food waste<sup>56</sup>).</p> <p>Facilitate the creation of regional Food Policy Councils. Food Policy Councils are community level organisations which work towards a strong and affordable local food system.<sup>57</sup> They foster community and cross-agency engagement and action. Examples of the type of activities they could engage in are setting up community gardens or community markets, food co-operatives, produce sharing schemes, community supported agriculture, or supporting affordable mobile fruit and vegetable vendors.</p> <p>Utilise the toolkit for local government developed by Toi Te Ora - Public Health Service, ‘Growing Healthy Communities: Food Security Toolkit for Local Government’. The toolkit identifies a range of strategies, advocacy opportunities and policies relevant to local government.<sup>57</sup></p>	<p>Strengthen support for breastfeeding as a nutritious and free food for infants.</p> <p>Encourage a small grants scheme through council or community boards to provide seed funding for healthy food initiatives.</p>



Food availability	<p>Continue to fund Fruit in Schools at a level that ensures sustainability and widespread uptake. Consider funding other provision of healthy food in schools if necessary (eg. school food programmes).</p> <p>Provide funding for schools to install kitchens and edible gardens.</p>	<p>Drive reformulation of low-cost everyday foods to be lower in saturated and trans fat, sodium and sugar.</p> <p>Increase the range of low-cost, healthy, everyday foods in supermarkets and food stores eg. through home brands.<sup>52</sup></p> <p>Allocate land and resources for community gardens, community food markets and open orchards.</p> <p>Use zoning laws to protect arable land for local food production.</p> <p>Plant fruit trees in council housing, parks and public spaces for 'gorilla foraging'.</p> <p>Develop traditional food sources and projects through iwi and pan-tribal organisations.<sup>52</sup></p>	<p>Develop skills and leadership within communities to instigate and lead local initiatives to reduce food poverty.[ANAVision 2022]</p> <p>Implement food cooperatives, buying clubs and produce-sharing schemes.</p>
Food accessibility	<p>Investigate targeted subsidies for healthy food such as fruit and vegetables, for example a smartcard. A smartcard (electronic discount card) can be targeted to specific people and foods.<sup>52</sup> The effect of an electronic discount on healthy foods was trialled in the SHOP study.<sup>58</sup> A 12.5% cost discount led to a 10% increase in fruit and vegetable purchases (see Heart Foundation position paper).</p> <p>Food subsidies could be funded by a tax on sugary soft drinks. The SPEND study found subsidies and taxes showed promise and may lead to changes in food purchasing, although caution is needed due to potential unintended compensatory purchasing behaviours.<sup>59</sup></p>	<p>Ensure affordable transport options are available to access food stores, especially in areas of higher deprivation.</p> <p>Provide local government with the regulatory tools (eg. zoning rules) to control density and placement of fast food outlets, especially around schools, churches and community centres.</p> <p>Use healthy foods as loss leaders (that is, specials that draw customers to a store) and in promotions.<sup>52</sup></p> <p>Create in-store environments that promote healthier food choices eg. placing healthy foods at eye level on shelves and end-of-aisle and making all checkout aisles confectionary free.<sup>52</sup></p> <p>Increase availability of water fountains in public places.<sup>60</sup></p> <p>Establish healthy catering policies for events, festivals and workplaces.<sup>60</sup></p> <p>Support smaller food store owners with business strategies that empower them to improve access and affordability of healthy food in-store.</p>	<p>Invest in edible gardens in schools.</p> <p>Develop community food gardens in places like maraes, churches, education institutes and council land.</p> <p>Support low-cost vegetable and fruit delivery boxes, ordering systems or mobile vendors. These have been successful in initiatives such as the Colourful Kai scheme in Southland, Kai @ the Right Price in the Bay of Plenty (<a href="http://www.ttophs.govt.nz/kai">www.ttophs.govt.nz/kai</a>), and the Good Food Box in Toronto (<a href="http://www.foodshare.net">www.foodshare.net</a>).</p>



Food literacy	<p>Implement a simplified front of pack labelling system, supported by a comprehensive consumer education campaign to assist people in making healthier food choices.</p> <p>Include cooking skills in the national curriculum for schools.</p>	<p>Provide unit pricing information in food stores.<sup>52</sup></p> <p>Provide training and support for caterers and food preparers to prepare healthy food.</p> <p>Consider including cooking skills in relevant health promotion programmes.</p> <p>Advocate for council owned community centres to be upgraded or built to have kitchens that can be used as a community kitchen.</p>	<p>Fund or continue to fund and expand successful interventions to improve budgeting, cooking, and gardening skills eg. the Super Gran scheme and Pacific Heartbeat's nutrition courses.</p>
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## CONCLUSION

The Heart Foundation recommends bold and comprehensive action to reduce and eliminate food poverty for children/tamariki. This should occur under the umbrella of a national Food & Nutrition Strategy for Children. Action is needed to ensure that every single child in New Zealand has the benefits of a healthy diet, allowing them to reach their full potential.

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