

FOOD SECURITY

What is this?

Food security in developed countries is defined as access to nutritionally adequate, safe, and personally acceptable foods and the ability to acquire them in a socially acceptable way.¹

Why is it important?

The health impacts of a poor diet, relying on cheap “filler” foods lacking in nutrients from fresh fruits and vegetables, are well documented.^{2,3} A poor diet based around cheap, energy dense, foods may satisfy energy needs, but is high in fat and salt increasing the risk of overweight and obesity, cardiovascular disease, diabetes, and some cancers. Poor nutrition in children is particularly detrimental, as it affects child health and development, and increases maternal depression, neglect and abuse, and increased hospitalisations. Children who experience food insecurity and are iron deficient in early life are likely to have cognitive, attention, and behavioural deficits that persist even after treatment.



Although food insecurity is associated with limited household income, and low socioeconomic status, it is not confined to the poorest members of society. Low waged workers, or people on moderate incomes with higher than average mortgage payments or where there has been sudden illness or loss of employment may also be food insecure. Food insecurity has also been linked to maternal depression which in turn affects the relationships between a mother and her children.

Data

In the 2008/09 Adult Nutrition Survey (Adults 15+)⁴, 14% of New Zealand households reported as running out of food often or sometimes due to lack of money with 8.8% often or sometimes relying on food from others. The survey also identified that 59.1% of New Zealand households were fully/almost food secure, 33.7% of households were classified as being moderately food secure, and 7.3% of households were classified as having low food security.

When ethnicity is considered, 62.4% of Maori males, 66.7% of Maori females, 70.4% of Pacific males and 79.0% of Pacific females live in households that had moderate or low food security, compared with 34.6% of males and 49.2% of New Zealand European & other ethnicity. In the 2002 National Children’s Nutrition Survey 22% of all households with children were found to be experiencing some level of food insecurity.⁵

Average national weekly household expenditure on food, as reported by Statistics New Zealand, is summarised in Table 1, below, out of an average total net weekly expenditure (on all items) of \$1010.40 for the year ended 30 June 2010.

¹ The information in this section, unless otherwise stated, is taken from Bidwell, S. 2009. Food security: A review and synthesis of themes from the literature. Christchurch: Community and Public Health, CDHB. www.cph.co.nz/Files/FoodSecurityReview.pdf Accessed 17.12.12.

² Adams, E.J., Grummer-Strawn, L., Chavez, G. 2003. Food insecurity is associated with increased risk of obesity in California Women. *Journal of Nutrition* 133(4), 1070-1074;

³ Carter, K.N., Kruse, K., Blakely, T., Collings, S. 2011. The association of food insecurity with psychological distress in New Zealand and any gender differences. *Social Science and Medicine* 72(9), 1463-1471.

⁴ Ministry of Health. 2011. Nutrition-related health outcomes. In: *A focus on nutrition: key findings from the 2008/09 NZ Adult Nutrition Survey*. Wellington: Ministry of Health.

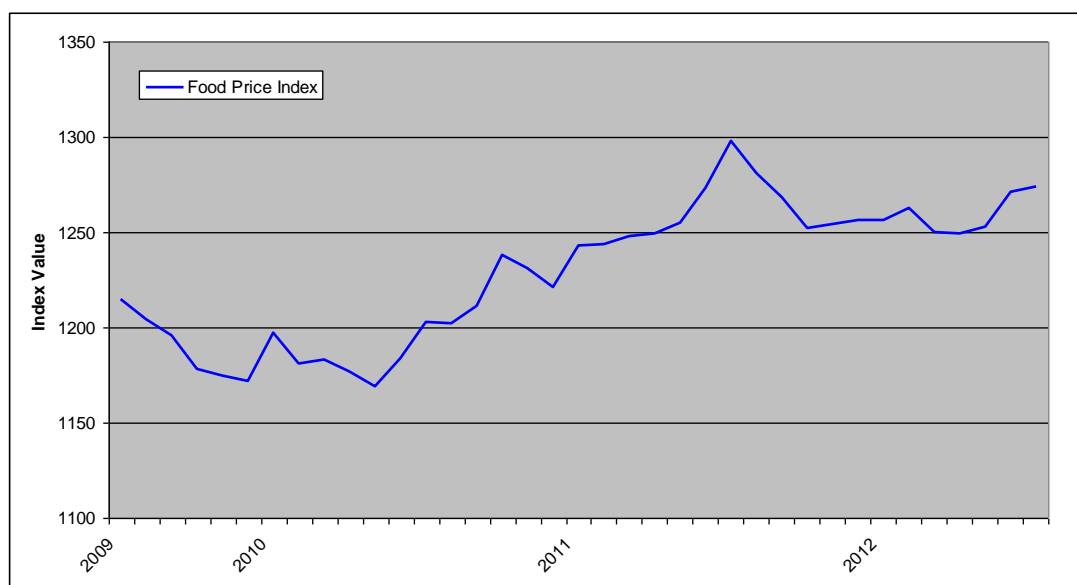
⁵ Parnell, W.R., Scragg, R., Wilson, N., Schaaf, N., Fitzgerald, E. 2003. NZ food NZ children: key results of the 2002 National Children’s Nutrition Survey. Wellington: Ministry of Health. <http://www.health.govt.nz/system/files/documents/publications/nzfoodnzchildren.pdf> Accessed 10.09.12.

Table 1 Weekly Household Expenditure on Food (for year ending 30 June 2010) ⁵

Category	Expenditure
Fruit and vegetables	20.00
Meat, poultry and fish	27.00
Grocery food	78.00
Non-alcoholic beverages	10.00
Restaurant meals & ready-to-eat food	43.00

When this survey was taken, food was the second largest category of weekly household expenditure, (housing and household utilities being the largest, and transport the third largest). This ranking was consistent with the findings of the 2007 Household expenditure survey.

The food price index (FPI) measures the rate of price change of food and food services purchased by households. Statistics New Zealand reports the FPI monthly, against a baseline of 1000 set in June 2006. The FPI decreased steadily from 1,215 in July 2009, to a steady increase in April 2010 through to May 2011 to an FPI over 1,250. Between May and July 2011 the FPI increased rapidly, moving 43 index points to a two year high of 1,298. The FPI then decreased rapidly between August and October 2011, before remaining relatively stable until July 2012.⁶ As shown in Figure 1, below, over the two-year period from July 2009 through to July 2011, the FPI increased by 6.4%, with the median weekly income in Canterbury increasing by only 4.4 per cent over this same period.⁷

Figure 1 Food price index, July 2009 through July 2012⁸

⁵ Statistics New Zealand. 2010. Household economic survey: year ended June 2010. Wellington: Statistics New Zealand.

<http://www.stats.govt.nz/~media/Statistics/Browse%20for%20stats/HouseholdEconomicSurvey/HOTPYeJun10/HouseholdEconomicSurveyYeJun10HOTP.pdf> Accessed 10.09.12.

⁶ Statistics New Zealand. 2012. Food price index: July 2012. Wellington: Statistics New Zealand.

http://www.stats.govt.nz/browse_for_stats/economic_indicators/prices_indexes/FoodPriceIndex_HOTPYeJul12.aspx Accessed 10.09.12.

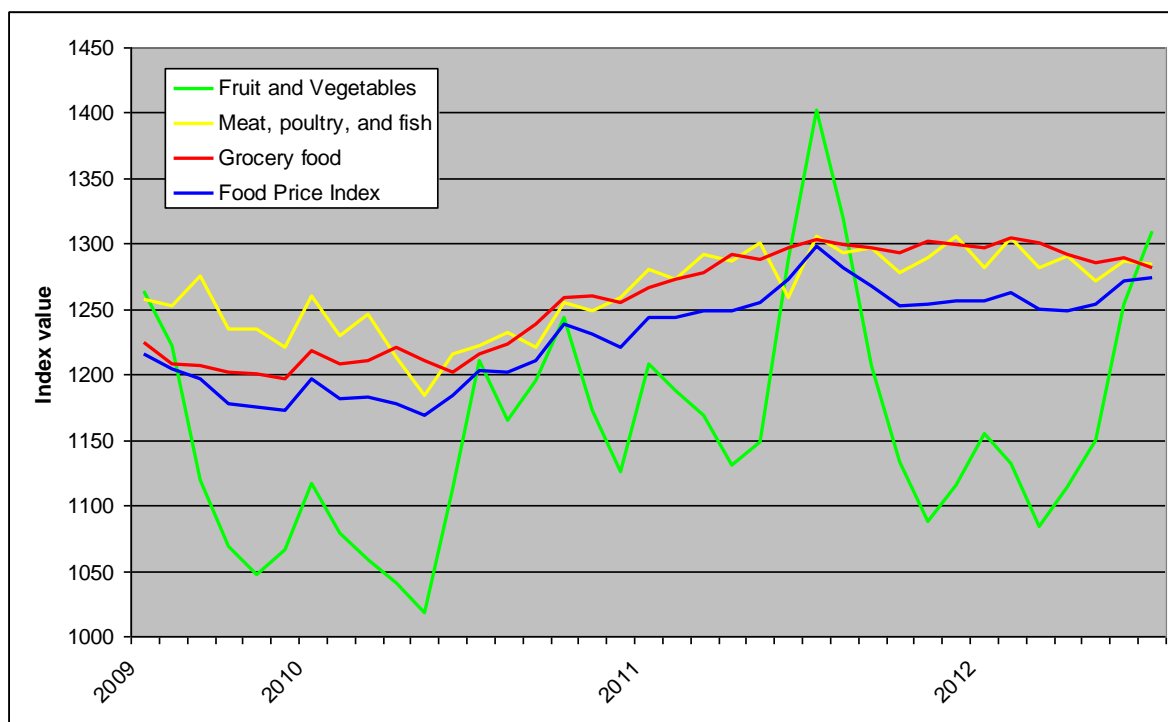
⁷ Statistics New Zealand. 2011. New Zealand Income Survey June 2011 quarter. Supplementary Table 6. Average weekly income for all people by Regional Council area. Wellington: Statistics New Zealand. http://www.stats.govt.nz/browse_for_stats/income-and-work/Income/NZIncomeSurvey_HOTPYeJun11qtr.aspx Accessed 10.09.12.

⁸ Statistics New Zealand. 2012. Food price index: July 2012.

http://www.stats.govt.nz/browse_for_stats/economic_indicators/prices_indexes/FoodPriceIndex_HOTPYeJul12.aspx Accessed 10.09.12.

Food prices decreased in the year between July 2011 and July 2012. The food price index decreased by 1.8%, with fruit and vegetable prices decreasing 6.7%, general grocery food decreasing by 1.7%, and meat, poultry and fish decreasing 1.6%.⁹ Figure 2, below, shows food price index value (blue line) compared with the index value for fruit and vegetables (green line), meat poultry, and fish (yellow line) and grocery food (red line) over the past three years.

Figure 2 Grocery food price index, July 2009-July 2012.



Impact on inequalities

In the last few years the food price index has increased at a rate greater than median income. This can lead to the situation whereby food becomes less affordable as the increase in incomes is not keeping up with the increase in the cost of food. Households with lower incomes are less likely to be food secure, which can affect diet and result in nutrient deficiencies and extremes of body mass index, particularly obesity. Women are particularly affected.

Access to food includes being able to afford to buy and transport food, the mobility to get to the food source and the time to do so. Households with low incomes and people who are disabled are also more likely to suffer from these sorts of difficulties so are even more disadvantaged. Additional problems result from carrying the goods home without independent transport as does shopping with young children. International studies have found that low income areas tended to have fewer supermarkets, and more corner stores with higher costs and a poor variety of fresh foods.¹⁰ A New Zealand study has found, however that fast food outlets are consistently more prevalent in deprived areas.¹¹

⁹ Statistics New Zealand. 2012. Food price index July 2012. Wellington: Statistics New Zealand.

http://www.stats.govt.nz/browse_for_stats/economic_indicators/prices_indexes/FoodPriceIndex_HOTJJul12.aspx Accessed 10.09.12.

¹⁰ Pearce, J., Hisock, R., Blakely, T., Witten, K. 2008. The contextual effects of neighbourhood access to supermarkets and convenience stores on individual fruit and vegetable consumption. *Journal of Epidemiology and Community Health* 62, 198-201.

¹¹ Pearce, J., Blakely, T., Witten, K., Bartie, P. 2007. Neighbourhood deprivation and access to fast-food retailing: a national study. *American Journal of Preventive Medicine* 32, 375-382.

Solutions

There is evidence that the availability of affordable and easily accessible fresh foods makes a healthy diet more likely. Emergency measures such as special grants from Work and Income or food parcels from food banks run by social services agencies are available but should ideally be a last resort, temporary measure that is used infrequently as people find them stigmatising and feel a loss of dignity. Additionally, food banks, which often need to rely on donations, may be able to provide only a limited range of food, sometimes of variable quality.

A pilot project began in October 2011 in the Eastern suburbs to enable families to buy affordable seasonal fresh fruit and vegetables through food cooperatives. A pack of seasonal fruit and vegetables is available for \$10, each pack has at least four different types of vegetables and three types of fruit. Over 1,500 families weekly, receive fruit and vegetable packs through the Cathedral Healthy Eating Cooperative.¹²

Lack of cooking skills is a barrier to being able to access and cook appropriate food. There are a range of classes in Christchurch that teaches different groups the importance of good food preparation, for example the Senior Chef course teaches practical cooking skills, meal planning budgeting and nutrition to older people living alone.

Community gardens can assist in providing access to fresh, healthy, inexpensive food as well as creating social benefits. On occasion community groups offer community lunches, such as Te Whare Roimata's Gold Coin Café, where people can get a nutritious meal free or for a nominal charge. The Kids Edible Gardens project works through local primary schools to promote composting and organic gardening and increases awareness of where food comes from.¹³ This awareness leads to children being more interested in food and food preparation which gives them vital skills in the future.

In 2013, Fonterra Milk for Schools programme will provide all New Zealand primary-aged children free milk in schools.

Other international examples of support for increased food security are:

- assistance for farmers' markets to take place in neighbourhoods where food access is difficult and markets would not normally be viable;
- bulk buying of seasonal fresh produce which is made up into "good food boxes" for a fixed price and delivered to community centres or schools;
- expediting permits or waiving restrictions where possible for activities that assist food security such as urban gardens or farmers markets;
- bulk buying of staple foods by a community cooperative;
- ensuring that roads do not displace local businesses and remove access to existing food sources;
- ensuring that food producing land locally is not taken for housing or roadways; and
- actively promoting policies that encourage local food production that reduces the need for packaging and transport.

Connections with other issues

Employment, Income, Obesity, Mental Health.

Data Limitations

The data on median income are derived from Statistics NZ tables divided by Regional Council areas, but the Food Price Index is for New Zealand.

¹² Cathedral Healthy Eating Cooperative. <http://www.christchurchcathedral.co.nz/Programmes/Healthy-Eating-Co-op> Accessed 20.12.12.

¹³ <http://www.organics.org.nz/oct.html#kids> Accessed 10.09.12.

Impact of the earthquakes

As time passes and these papers are updated the initial sections on the impact of the earthquake are going to be kept as an archive of what we thought the situation was at the time. Updates where possible are provided.

As at December 2012

There is some ongoing impact on access to close and affordable food outlets in some areas.

Some community groups have suggested that a portion of the red zone around the Avon/Otakaro River be converted into community gardens.

As at November 2011

Access to fresh food has been affected with the temporary or permanent closure of supermarkets and other food retail outlets in the worst hit areas. Demand on the Christchurch City Mission foodbank increased by 100% between February and June 2011.¹⁴ While there seems no evidence as to a food shortage it is access to close and affordable outlets that is likely to be impacted. A number of community and personal gardens are also likely to be affected

Prepared by Community and Public Health.

¹⁴ Christchurch City Mission Food Security information sheet. <http://www.mmsi.org.nz/images/stories/pdfs/food5.pdf> Accessed 20.12.12.