

Canterbury

District Health Board

Te Poari Hauora o Waitaha

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COMMUNITY AND PUBLIC HEALTH**

Food Security

A review and synthesis of themes from the literature

Paper prepared for Programme Area Four
Community and Public Health Christchurch

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Released to Client	20.08.09

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Key points

- It is estimated that around 10% of New Zealand households experience low food security. Maori and Pacific Island groups are more affected than other New Zealanders.
- Economic factors have the greatest influence on food insecurity, particularly the cost of accommodation in relation to total household income.
- The effects of food insecurity on health status and social wellbeing are well documented. It is especially damaging for child health and development, and is associated with an increased the risk of overweight and obesity
- Emergency food assistance is necessary for short term relief but does not address the underlying causes.
- Qualitative studies have shown that community gardens, community kitchens, bulk buying and produce distribution interventions can provide a more nutritious and varied diet for participants and also have considerable psychosocial benefits for individuals, families, and communities that participate. However, these programmes tend to miss the most deprived sector of society.
- Statistically significant improvements in food security status have been difficult to demonstrate from community programmes but as yet there is limited research, especially from long-term studies.
- It has not so far been possible to demonstrate direct health improvements as a result of community food security programmes.
- Policy change at all levels of government (top-down interventions) combined with programmes that work at community level (bottom up interventions) is needed for any meaningful change.
- Canadian programmes are more developed than other countries and these may provide a useful guide to the best approach. Australia, especially Victoria, has also begun to intervene based on the Canadian model.
- Efforts by Community and Public Health are most likely to be effective if concentrated on encouraging intersectoral collaboration in the setting up of community programmes, providing a coordination role, and taking a leading role in advocating for policy change at a local, regional and national level. It is also important that there continues to be an emphasis on evaluation of programmes and that the results are widely disseminated to strengthen the evidence base about best practice.

1 FOOD INSECURITY

1.1 *What are food security and food insecurity?*

Optimal physical, cognitive, and emotional development and function in humans requires access to food of adequate quantity and quality at all stages of the lifespan (Cook and Frank, 2008). In developed countries food security is defined as access to nutritionally adequate, safe, and personally acceptable foods and the ability to acquire them in a socially acceptable way (Parnell and Smith, 2008).

Food insecurity occurs when people do not have enough food to satisfy hunger, have an insufficient and limited diet, are anxious about having enough food or need to resort to makeshift coping strategies such as begging, scavenging, or relying on emergency assistance programmes (Cook and Frank, 2008)

1.2 The underlying causes of food insecurity

Studies of people who suffer food insecurity across different countries and health systems have consistently found that it is closely related to limited household resources, low disposable income and poor socioeconomic status (Cook and Frank, 2008; Else, 1999; Press, 2004; Rush and Rusk, 2009; Rychetnik et al., 2003) (Parnell and Smith, 2008).

Single parent families especially those with young children, indigenous communities, unemployed people, and those with chronic illness or disability are more likely to be food insecure.

In New Zealand Maori and Pacific Peoples are disproportionately affected. They are likely to live in more socially deprived areas where it is more difficult to access a variety of healthy foods. These areas tend to have fewer good supermarkets and more fast food outlets (Rush and Rusk, 2009; Te Hotu Manawa Maori, 2008).

Food insecurity is not confined to the poorest members of the population and those who survive on benefits. Low waged workers, particularly without secure housing, are affected. People on moderate incomes who have higher than average costs because of mortgage or loan repayments or who experience sudden illness or unemployment also experience food insecurity (Tarasuk and Vogt, 2009). Geographical remoteness from food sources may also be a factor (Rychetnik et al., 2003).

1.3 Effects of food insecurity

Not everyone who is food insecure is hungry. People may have enough food to feel satisfied, but have a diet with inadequate levels of micronutrients (vitamins and minerals), dietary fibre, vegetables and fruit (Rychetnik et al., 2003).

The relationship between food insecurity and poor health status is well documented (Cook and Frank, 2008; Hampton, 2007). Food insecurity influences child health and development through its effect on nutrition and because of the additional stress it creates on families (Cook and Frank, 2008). It affects all aspects of physical, mental, and psychosocial health and is a key factor in low birth weight, stunted growth, being underweight for age or height, chronic poor health, more admissions to hospital, and poor cognitive development (Cook and Frank, 2008; Kristjansson et al., 2007). Food insecure children who are iron deficient in early life are likely to have cognitive, attention, and behavioural deficits that persist even after treatment (Cook and Frank, 2008).

Food insecurity is strongly linked to maternal depression, which in turn has a flow-on effect on mother-child interaction, attachment, neglect and abuse. There have been links shown with lower rates of initiation and continuing breastfeeding in food-insecure households. Adult caregivers in food insecure households may try to spare children from its effects but this may then compromise the availability of food for other household members, particularly women (Cook and Frank, 2008).

Only extreme food insecurity where there is hunger is associated with under-weight (Burns, 2004). In developed countries there is good evidence that the risk of obesity is 20-40% higher in people who experience food insecurity compared with the rest of the population. Obesity in turn is associated with chronic diseases like diabetes, cardiovascular disease, some cancers, and overall poor health status. Women who are food insecure are particularly affected, something which is found regardless of level of income, lifestyle behaviours, or education across studies in the US, Europe, and Australia (Burns, 2004)

Reasons for this association are:

- Cheap foods are energy dense, high in fat and sugar and highly palatable. People with limited resources will select foods that are more energy dense so as to satisfy energy needs. It is, in fact, very cheap to become obese (Burns, 2004; Rush and Rusk, 2009; Te Hotu Manawa Maori, 2008).
- Episodic food shortages may result in a variety of cognitive, emotional and behavioural changes such as feast/famine cycles and preoccupation with food and eating related to benefit payment cycles (Burns, 2004, p.18).
- Distance and transport factors: low socioeconomic areas tend to have fewer readily available sources of healthy food and more fast food outlets (Daniel et al., 2009; Rush and Rusk, 2009; Te Hotu Manawa Maori, 2008).
- Environments may be less pleasant and encouraging for physical activity.
- Culture and world view may have some influence. Pacific peoples, for example, have strong spiritual and cultural connections with food and the ability to provide lavish amounts of food for family and visitors is important (Rush and Rusk, 2009).

2. Community-based food security interventions: what works?

2.1 *Food banks and other emergency assistance programmes*

The main reason for going to a food bank is not having enough money left for food after other expenses, especially rent. Most people use food banks only as a last resort and find them stigmatising and a loss to their dignity (Engler-Stringer and Berenbaum, 2005; Engler-Stringer and Berenbaum, 2007).

Food banks and other charitable food assistance programmes are not an adequate solution to food insecurity caused by poverty (Tarasuk and Beaton, 1999). They rely on donated food which is limited in range, variable in quantity and quality, and largely uncontrollable by the organisers (Tarasuk and Eakin, 2003).

A study in Ontario examined food hampers at a large urban foodbank and found that dairy products, fruit, vegetables, meat or alternatives and numerous vitamins and minerals were below recommendations for an adequately nutritious diet. Hampers that were meant to contain three days worth of food were sufficient only for 1.6 days energy requirements (Irwin et al., 2007). Other studies have shown that donated food is often unsuitable for people of different ethnicities, age groups, or with food safety concerns (Verpy et al., 2003).

Donated food usually consists of products that cannot be retailed because they are not of marketable quality Tarasuk (2005) reported that the handling of these unsaleable products from industry is a labour intensive activity, and is only possible because of unpaid labour, the neediness of clients, and their lack of rights in the system. While retailers and corporate interests might view their donation of surplus food as good citizenship in that it assists the needy, prevents waste, and reduces dumping and disposal costs, it also means that food banks become entwined with corporate needs and a second tier food system becomes entrenched. It may also undermine the state's obligations to address food poverty and nutritional health and wellbeing (Riches, 2002; Tarasuk and Eakin, 2005).

2.2 *Community kitchens and collective cooking*

Community kitchens are community based programs where small groups of people meet regularly to buy food and prepare meals together. The terms “community kitchen” and “collective kitchen” are used interchangeably to describe the pooling of resources by the group to make healthy low-cost meals for their families at home (Engler-Stringer and Berenbaum, 2007; Rutherford and Miller, 2006).

Community kitchens originated in response to cuts in public subsidies in Peru and Bolivia in the late 1970s and early 1980s as a means of improving nutrition for women and children (Rutherford and Miller, 2006; Schroeder, 2006). In the developed world most studies of community kitchens have taken place in Canada.

2.2.1 *Canadian community kitchens*

In Canada, collective kitchens began in Montreal in 1985 when three low-income women met to cook in bulk to save money (Engler-Stringer and Berenbaum, 2005). News of the initiative spread and within a year 15 groups were active in the district. Today groups exist in all provinces and territories of Canada.

The kitchens vary in nature – some focus on food production and cooking skills, others have a more social aspect. Some are completely volunteer groups while others are led by health professionals or staff from community organisations. They may be adapted to the specific needs of a particular group, for example young parents, or people with mental illness.

There is only a small amount of research literature on community kitchens, all of it from Canada. A study of the Calgary Health Region Collective Kitchen (Fano et al., 2004), an in-depth qualitative study in three Canadian cities¹ (Engler-Stringer and

¹ Toronto, Montreal, and Saskatoon

Berenbaum, 2006) and a review and synthesis of six earlier studies (Engler-Stringer and Berenbaum, 2007) provide a good overview. A summary of these studies and their findings follows.

Effect on food resources

Many participants in the three city study (Engler-Stringer and Berenbaum, 2007) cited financial reasons for joining a CK programme. They felt they could make more use of their limited resources through the ability to buy and cook in bulk. This was particularly useful for perishables such as fresh produce that were not practical to buy in bulk for small households but avoided waste and brought savings if shared round all members of the group. Moreover, foodstuffs in these programmes were often subsidised, thus providing further savings.

A major finding from all studies was that programmes that cooked more than 5% of meals per family per month gave more savings than those that cooked fewer, particularly when there was a level of subsidy involved. Some programmes provided as many as 24 meals per month (around 25%). Participants reported in the qualitative study that their benefit stretched further and they were able to afford the occasional luxury to add enjoyment to their diet (Engler-Stringer and Berenbaum, 2007, p.80). Conversely, providing just a few meals per month had a minimal effect on the food security of a household and did not alleviate financial stress.

Food Quality and variety

Participants reported more variety of food, particularly being able to add vegetables to their usual menu of basic dried goods and canned food. This was likely to give increased nutrient value per dollar spent. In the Alberta study with 79 participants, Fano et al (2004) found that the percentage who said they ate at least five vegetables and fruits each day increased from 29% before the programme to 47% following the programme. This compared favourably to 25% who reported eating five servings a day in a general survey of Albertans. In the three-city study (Engler-Stringer and Berenbaum, 2007), participants appreciated the improved quality and safety of the community kitchen meals compared to the poor quality they had received in the past from food banks.

Dignity and acceptability

Some community kitchen participants reported that the programme had either reduced or eliminated their need for food bank visits. While community kitchens are overwhelmingly used by low income groups, their self-help and participatory nature where individuals are respected and valued for their contribution appears to make them significantly different from charitable programmes which were seen as stigmatising and undignified (Engler-Stringer and Berenbaum, 2007, p.82).

Skills and knowledge

All three articles commented that low income women already had good skills in managing their limited financial resources and generally spent money wisely. However, detailed information on meal planning, label reading, bulk buying, creative

use of staple foods, and nutritional knowledge were noted as positive results of involvement in a community kitchen.

Health promotion – healthy food and food safety

The Alberta study by Fano et al (2004) found that a significant number of participants felt they were feeding their families healthier foods with more fruit and vegetables since joining the community kitchen. Older studies in the review article (Engler-Stringer and Berenbaum, 2005) also indicated the skills and knowledge gained by participants would be likely to lead to changes in food-related behaviours and personal health practices, increase parents' knowledge of healthy food choices in a way that could have positive effects for child development (p. 249). An improvement in mental health was also noted in some articles, particularly those that surveyed single parents. These conclusions, however, as noted by the authors were based on very limited research.

Only the Alberta programme specifically considered food safety. Participants reported "...that they had learned to cook food in a safer way". However, this seemed to be based on just one question about hand washing practice when preparing food, prior to and after joining the programme (Fano et al., 2004, p.76).

Social support

There is good evidence for the social benefits of community kitchen programmes (Engler-Stringer and Berenbaum, 2005; Engler-Stringer and Berenbaum, 2007; Fano et al., 2004). In the Alberta programme, socialisation was the most commonly reported reason for participating. Friendship, mutual aid, increased self esteem, helping deal with difficult circumstances, and retaining a sense of control over difficult circumstances have also been mentioned as having mental health benefits and overcoming feelings of isolation (Racine and St-Onge, 2000).

Empowerment of people, organisations and communities

From the limited data available, community kitchen programmes can be empowering for both individuals and groups. Gaining a greater understanding of food issues and the increased social support benefit individuals, increasing their self esteem and confidence. This may lead on to further participation in leadership roles and may be a catalyst for advocacy and political action for some groups.

Limitations of community kitchens

Community kitchens do not pretend to eliminate poverty or redistribute wealth. According to Fano et al (2004) they address only Stage Two (capacity building) on a continuum of activities for addressing food security, where Stage One is emergency food assistance and Stage Three is the development and implementation of policy to correct the systemic problems that cause food insecurity.

Community kitchens appear to miss the poorest of the poor through a variety of economic and psychological barriers (Engler-Stringer and Berenbaum, 2007).

Significant subsidies are needed for kitchens that serve those at the lowest level of income as even a small charge may be too much for families living in severe poverty. Transport difficulties may also add to the difficulty in attending.

The level of food security community kitchens provide is precarious. In the three city study it was found participants would need to resort to food banks whenever the kitchen closed for a break (Engler-Stringer and Berenbaum, 2007, p.82).

In the Alberta evaluation, more than one third of the respondents mentioned something they disliked about the programme. Most of these related to the size and available facilities in the particular kitchen, but personality conflicts and language barriers were also mentioned (Fano et al., 2004, p.77)

Some criticisms have been made of the community kitchen model as an unhelpful diversion from exploiting opportunities for developing awareness and activities relating to wider social issues of deprivation and inequality (Engler-Stringer and Berenbaum, 2005, p.250). Criticism has also been made on the grounds that it allows the state to abdicate responsibility to the poor and exploits women whose efforts do not translate into careers or meaningful gains in economic circumstances for themselves and their families (Schroeder, 2006). This latter criticism arises from studies in Peru and Bolivia and may be less relevant in developed countries but it is still worth noting the caution that “..if hard-working women can rally and manage to feed their families under even the most adverse economic situations, the state can further reduce its support for the poor” (p.667).

Limitations of the research base on community kitchens

There is limited research on community kitchens. Apart from some studies in South America, almost all studies have been done in Canada where many hundreds of community kitchens now operate.

In reviewing the literature up to 2005, Engler Stringer and Barenbaum (2005) noted that the research was small in scale, with limited numbers of participants in each one, and most results were based on self-report. Some studies interviewed only group facilitators rather than participants and no study included direct measurement of any of the impacts (p. 247). The later research conducted by the same authors (2007) was longer (6 months), covered 21 community kitchens in three cities and it used maximum variation sampling to get the widest possible variety of group characteristics.

More information about community kitchens Canada is available at <http://www.communitykitchens.ca/main/>

2.2.2 Australian community kitchens

The first community kitchen in Australia was set up in 2005 by Frankston Community Health service to offer an alternative approach to healthy eating and development of personal skills and social support networks. There are now more than 60 groups

operating throughout Victoria. More information about Australian community kitchens is available at <http://www.communitykitchens.org.au>

No research literature or evaluation of Australian community kitchens was located in the literature review. However, a feasibility study by researchers from Deakin University (Rutherford and Miller, 2006) for setting up a community kitchen programme gives a useful overview of activities in Victoria. The programmes listed cover a wide variety of groups such as young mothers, people with disabilities, beneficiaries, isolated elderly people, isolated men living alone, new migrants, and youth. Most groups operate under the auspices of primary or community health services, city councils, welfare and church groups, though a few are private initiatives. There appears to be less emphasis on food security in the Australian groups and more on healthy eating, friendship, and socialisation.

The feasibility study referred directly to the limited potential of community kitchens to address food insecurity arising from severe and chronic poverty but emphasised the positive impact they could make on social support, self confidence, and personal health practices (p. 17). The Community Kitchens website emphasises that they do not operate like a food bank and that participants plan meals, shop, cook and pay for the food themselves. However, it is clear from the feasibility study that there needs to be a measure of local support in kind if not in financial terms. The report states that “..facilities in which to run the kitchens and the establishment of partnerships with key stakeholders to support and sustain the programme” are important (p. 17).

2.2.3 Community kitchens in the UK

A small community kitchen initiative in the east end of London was started by a food writer in the Tower Hamlets community after seeing them operating in Victoria. The group has a website at <http://www.communitykitchens.org.uk/> This appears to be the only initiative in the UK. No research or evaluation results are available.

2.3 Community gardens and urban agriculture

Urban community gardens are not new. During World Wars I and II, Victory Gardens in the United States and other similar projects in Britain were used as a method of increasing local food supplies (Armstrong, 2000; Saldivar-Tanaka and Krasny, 2004). It has been estimated that the Victory Gardens program produced approximately 40% of the fresh vegetables consumed in the US from an estimated 20 million gardens.

Modern community gardens have a range of aims, not all of which involve food production. An idea of the variety of purposes can be gained from the aims expressed in the studies examined for this review:

- to improve psychological wellbeing and social relations, to facilitate healing and increase supplies of fresh foods (Armstrong, 2000)
- to create green spaces in areas of urban decline so as to enhance the attractiveness of the area, prevent crime, and create opportunities for community development (Saldivar-Tanaka and Krasny, 2004)

- to renew declining urban neighbourhoods and turn liabilities into assets, reflect the pride of their participants, and create community focal points and catalysts for neighbourhood improvement (Glover, 2004)
- to increase the availability and intake of fruits and vegetables for urban residents, and offer affordable and convenient access to fresh produce for urban populations with limited access to supermarkets (Alaimo et al., 2008)
- to increase food security, to connect people with where their food comes from, how to grow and cook it, the learning of life skills and the building of vibrant communities (Hunter, 2006)
- to address the socio-economic and ecological determinants of food production, through self-sufficiency, self-reliance and permaculture design... where people produce vegetables and fruits and educate the public about urban agriculture (Gelsi, 1999).

Community gardens are widespread in Canada and the United States, with over 1000 gardens in New York City alone, and hundreds in San Francisco, Boston, Toronto, Montreal, and Vancouver (Gelsi, 1999). Community gardens are well established in all states in Australia. The Australian City Farms and Community Gardens Network at <http://www.communitygarden.org.au> demonstrates the many organisations in operation. Project reports, a sociology thesis, and a narrative description of a travel fellowship were also located in the literature search (Christensen, 2004; Gelsi, 1999; Hunter, 2006).

Most of the research literature on community gardens comes from the United States and Canada. It consists mainly of qualitative studies where coordinators and participants were interviewed about the benefits that they received from taking part in garden activities. Community gardens have traditionally had a strong focus on community development and capacity building. While this is well known to be one of the wider determinants of health, studies have less frequently measured the effect of community gardens on consumption of fresh fruit and vegetables, or any direct health impacts.

2.3.1 Benefits of community gardens

One study that did focus on increased consumption of fruit and vegetables surveyed 766 adults in Flint, Michigan, a low-income, predominantly African American area (Alaimo et al., 2008). Fifteen percent of respondents had participated (or had a family member who had participated) in a community gardening project in the last 12 months. These respondents were 3.5 times more likely to consume at least five servings of fruit or vegetables daily (95% CI 1.8-6.7) and 1.4 times more likely than other respondents to consume any fruit or vegetables each day though this latter figure did not reach statistical significance. The study concluded that household participation in a community garden may improve fruit and vegetable consumption among urban adults. These details were extracted from a broader survey of the social determinants of health in the area done by random telephone sampling. The survey did not examine whether there had been any economic benefits or increased food security through participation in community gardens.

Another study in rural Missouri recruited 1658 parents who were participating in a child development program (Nanney et al., 2007). Parents were questioned in detail about the frequency of their own and their family members' consumption of fruit and vegetables and whether any produce was home grown. Those who said they almost always ate home grown fruit and vegetables were 3.2 times more likely to eat five daily servings compared to those who rarely or never ate home grown produce ($p < 0.001$, (95% CI 2.20-4.59)). Both parents and children in the "home grown" families ate nearly a serving more fruit and nearly half a serving more vegetables daily than others and the quality of their intake was higher (assessed by the individual fruits and vegetables consumed and their vitamin A, C and fibre content). The study concluded that promoting awareness of local produce sources and facilitating the development of gardening programmes is a worthwhile investment. However, weekly grocery expenses and visits to fast food restaurants were similar across all groups. This study did not directly study food security and but is of relevance because of the apparent boost to nutrient consumption that seems to derive from access to home grown food. However, there are some cautions in generalising the results from a rural area – where land and produce are likely to be more readily available – to a suburban or inner city area. Additionally, the participants were already enrolled in an educational programme to benefit their children and so may have been unrepresentative of the general population of the area.

A Canadian study in Toronto (Wakefield et al., 2007) examined the health benefits of community gardens through observations, focus groups and in-depth interviews with coordinators and gardeners. Health benefits mentioned by participants were

- better access to fresh, wholesome food
- cost savings
- added variety to diet
- culturally appropriate foods otherwise unavailable or too expensive
- general nutritional benefits
- exercise
- more fruit and vegetable consumption
- reduced exposure to pesticides (not used in most gardens)
- improved mental health and general wellbeing especially being able to get into a natural environment in the inner city.

Other benefits were related to social capital:

- improved relationships among people
- community pride
- impetus for broader community mobilisation
- sharing produce with others – greatly important to people with very low incomes if they had something to give away
- empowering experience
- increase in self esteem
- enhancement of the area by creating a green space
- lessening of isolation
- social engagement with people from other cultures using food and shared experiences

The authors noted that most gardens had waiting lists and there were frequent enquiries from passers-by about how they could get involved.

Several other studies have reported similar benefits. One investigation of the benefits of community gardens in seven Hispanic neighbourhoods in New York City (Saldivar-Tanaka and Krasny, 2004), found that participants reported improved food security and nutrition, cost savings, community and citizenship building, and environmental enhancement. There was also a perceived reduction in crime and racial tensions, improved quality of life, and an extension of the garden into “neighbourhood designed participatory landscapes”. Another feature was being able to retain farming culture in an urban environment, and to keep up cultural practices linking food with dance and music at times of festivals and celebrations (p. 409)

A survey of coordinators of 63 community gardens in upstate New York (Armstrong, 2000) found the most commonly expressed reasons for people participating were access to fresh food, the enjoyment of nature, and health benefits. The gardens in low income neighbourhoods were also four times as likely as those in better off areas to act as facilitation points for addressing other community issues. Over half of the gardens in rural areas were said to be a food source for low income households.

Twiss (2003) reviewed lessons learned from gardens in California, citing local leadership in city councils, and the participation and support of volunteers and diverse community organisations as partner institutions. Benefits in skill building, leadership development and “interactive learning opportunities” were also seen. These gardens which were part of the Healthy Cities initiative in California were found to increase physical activity, fruit and vegetable consumption, and to encourage students who began gardening at school to start home gardens as well. Other benefits were seen in the development of food and nutrition policies in some areas, expedited permits and zoning approvals, and the waiving of parking regulations to assist garden projects.

Lastly, a study in New York City of the effect of community gardens on real estate values found that they had a positive effect on surrounding property values (Voicu 2008). It was estimated that in the poorest areas, a garden could raise the neighbouring property values by as much 9.4% after five years operation. These findings were seen also for parks and other green spaces and were presented as an investment for the city as they would have a payoff in the additional property tax revenues from the neighbourhood. No examination was made of the effect on the quality of life of the gardeners.

2.3.2 Difficulties with community gardens

In spite of the mostly beneficial effects of community gardens, there has been a range of physical, organisational and interpersonal difficulties reported.

- Contaminated soil in some urban areas and lack of knowledge or economic ability to get it tested (Wakefield et al., 2007).
- Lack of funding and resources such as tools, equipment, and access to water. This made participation difficult for those on the lowest incomes who could

not afford to provide anything from their own resources (Saldivar-Tanaka and Krasny, 2004; Wakefield et al., 2007).

- Insecurity of tenure - gardens are seldom owned by participants and are threatened by neighbourhood development (Wakefield et al., 2007). Ironically the gardens may have contributed to the increasing attractiveness of the area so that development becomes desirable and economically viable.
- Lack of support and understanding from decision makers and councils that the gardens were very important to the community (Lee and Frongillo, 2001).
- Lack of strong leadership increased the likelihood that gardens could lose their lease (Saldivar-Tanaka and Krasny, 2004).
- Differences in underlying philosophy about the use of chemicals, whether to sell produce, and attitudes to locks, gates, and fences and what should be grown. Growing flowers, for example, was seen by participants in one study as meaning it was a “white man’s garden” (Glover, 2004).
- It has been reported that there are some losers as well as winners in the social capital stakes depending the individual’s position within the social network. In one study African Americans were constrained by their fear of retribution from other African Americans who were involved in the criminal activity that the garden group was trying to displace. This study also found that it was possible for “individual success stories [to] undermine group cohesion” resulting in “downward levelling norms” (Glover, 2004, p. 157).

2.4 Allotment gardens

Allotments are another part of urban agriculture that has existed in the industrialised areas of Europe and the UK for centuries. These are mostly tracts of publicly owned land, sometimes on the edge of the city, divided into a series of small parcels which are used by families or individuals for a nominal rent to grow fruit, vegetables and flowers. Often they have a small shed for storage of tools and equipment. More details are available at the European urban agriculture website <http://www.cityfarmer.org/subeuropa.html>

Allotment gardens differ from community gardens in that they are individual rather than combined efforts, and in Western Europe and the UK today many are motivated more by environmental concerns than food security. In the late 1960s, 96.8 per cent of allotment holders in England and Wales were men, mostly elderly on low incomes. Recently however, this has changed with a 2001 survey in two London boroughs reporting 34% and 41% female ownership respectively, partly as a result of a rising demand by women for organic produce to feed their families (Buckingham, 2005).

The few studies that were located on allotment gardening showed similar benefits to those reported in studies of community gardens. Mental health benefits (Parr, 2007), green spaces in urban areas (Colding et al., 2006; Groenewegen et al., 2006), dietary benefits, cost savings, and environmental sustainability (Buckingham, 2005) have all been noted. In less affluent countries the benefits are more closely related to food security. The contribution of allotments as a way for the elderly poor in Russia to avoid poverty and degradation has been reported (Tchernina and Tchernin, 2002), as has their role in the provision of fresh food and flowers, a meaningful way of

spending leisure time and a source of supplementary income for many of the urban poor in Asian and African cities (van den Berg, 2002).

The same issues of contaminated soil, and the need for support through urban policy and planning have been highlighted in the few research papers.

2.5. Other programmes for bringing nutritious food to those with low food security

2.5.1 Good Food Box

The Good Food Box is a Canadian not-for-profit alternative food distribution system that provides a variety of high quality, fresh, nutritious and affordable produce. Food is purchased in bulk from local producers and wholesalers. Volunteers and staff pack the boxes which are delivered to neighbourhood depots. Individual families belong to neighbourhood based groups run by a volunteer coordinator. They pay for and order good food boxes in advance. Families benefit economically from the savings through bulk buying. Recipes are included in the boxes as well as information about food and nutrition. The goals of the programme are to:

- Increase access to good food
- Encourage healthy eating patterns
- Build community capacity through the neighbourhood volunteer coordinator system
- Provide nutritional information
- Support a sustainable food system by purchasing food from local producers (Brownlee and Cammer, 2004)

An assessment of the impact of the Good Food Box programme in Saskatchewan was undertaken in relation to the first two goals (Brownlee and Cammer, 2004). The researchers assessed access to food, participants' perceived eating habits and general perceptions of the programme through interviews and focus groups with recipient households, volunteers, neighbourhood co-ordinators and workers.

Good food boxes were found to be very successful in encouraging and promoting healthy eating habits. 84% of those who received the boxes reported an increase in both their own and their children's intake of fruit and vegetables. Participants had both the opportunity and probability of eating fresh produce, had tried new foods that they would not normally buy, and tried some of the recipes included in the newsletters.

Access to food was not as successfully improved. Some participants reported difficulty in coordinating the household budget with ordering and collection particularly if the household budget was variable from week to week.

Other findings from the research were

- volunteer coordinators needed more support to prevent burnout as their role was a key one in linking box recipients with staff and making sure all systems ran smoothly
- there were some community misperceptions - the programme was perceived by some as only for poor people, and on the other hand by others as only for middle class people
- some participants wanted the choice of more staple foods at a lower price with fewer unusual items included but it was felt this could create an unintentional split based on income
- the programme encouraged participants to think about the bigger picture in relation to food security, housing, community and connections and how these were inter-related.

Recommendations from this assessment included:

- recruiting more coordinators and payment of an honorarium in recognition of their important role
- instituting a reminder system for ordering and pickups
- opening a community grocery or produce store with affordable, quality food
- actively promoting GFB as a programme for everyone
- producing a GFB cookbook with recipes from past newsletters
- creating a more active partnership with community kitchens
- providing a short term subsidy for new members to encourage long term participation.

Another report on programmes to address food security (Friendly, 2008) that commented on the Good Food Box initiative listed the advantages as:

- accessible, healthy, high quality produce
- the wide variety of produce and choice of box sizes
- a dignified alternative to food banks
- some social capital and community building value
- support for local farmers and suppliers.

Limitations reported were:

- a lack of drop off/pick up points in low income housing areas caused partly by difficulties collecting payment from these areas in the past, and partly by the fact that the cost of the box may have been just too expensive for those on fixed, low incomes
- the Good Food Box is out of reach of the poorest and most marginalised populations.

This report concluded that the GFB was an “inspirational prototype” whose success is illustrated in its being replicated across Canada. However, such models “...on their own cannot solve the multitude of food insecurity problems” (p. 46).

2.5.2 Good Food Markets

The Good Food Market program was pioneered by FoodShare Toronto <http://www.foodshare.net/> with the aim of bringing farmers’ markets closer to

customers in low income “priority neighbourhoods” where food access is difficult and farmers’ markets may not otherwise be viable. They were particularly aimed at Toronto “food deserts” within the city with no store or supermarket within walking distance and where fast-food outlets or high priced convenience stores were the predominant means of food availability (Friendly, 2008, p.46). By 2007 there were twelve of these markets in Toronto.

Good Food Markets are potentially more sustainable than the Good Food Box programme. While FoodShare provides produce, training for leaders and volunteers, posters and flyers, the markets are otherwise independent operations. Buyers do not have to commit to spend any particular amount of money or order in advance and can spend just a few dollars on healthy fresh food if their budget is low in a particular week. Partnerships with the health clinics, community centres and social housing buildings where the markets take place are a key to success. The overall goals of the programme are:

- Improved access to healthy food in food deserts
- Affordability – healthy food at reduced cost
- Community building through social networking and interaction
- Supporting local farmers by buying directly at a fair price.

No evaluations of the Good Food Market were found in the literature search.

2.5.3 Basic Shelf Experience

Another Canadian programme, the Basic Shelf Experience (Dewolfe and Greaves, 2003) aimed to assist people living on a limited income to utilise food resources more effectively and build group support to cope with poverty-associated stress. Nine six week programmes were run in Toronto over six months in 1996-97. The evaluation consisted of data gathered using pre- and post-programme questionnaires and a three-month follow up from 42 participants who were enrolled in one of the programmes.

All those who completed the programme reported increased skills in meal preparation, knowledge of nutritional content and value for money. The opportunity to work together, share shopping, and meal preparation, improved confidence and the mutual support were well liked aspects of the programme. These participants suggested lengthening the programme and offering further courses where they could take over the instructing role. However, food security was not improved and the same barriers of limited income and transportation continued to be reported both at programme end and 3-month follow-up. There was a high drop out rate with only 20 (48%) of the original participants finishing the programme and only 17 (40%) attending the 3-month follow up. The small numbers involved and the high attrition rate were serious limitations of the programme.

2.5.4 Transportation of fresh food to isolated communities

Food mail

A government subsidised Food Mail programme has been running in Canada for over 25 years to transport nutritious, perishable foods to isolated communities by air. The

government subsidy keeps the cost of food down and requires that the products are transported in optimum condition. Vegetables, milk, fruit, bread, and meat receive the highest subsidy; other non-perishable staples attract a lower level of subsidy; foods of low nutritional value such as chips and soft drinks are not funded. See <http://www.ainc-inac.gc.ca/nth/fon/fm/pubs/inf/inf-eng.asp>

The programme had experienced complex problems in recent years but was audited (Audit and Evaluation Sector, 2008) and then extensively reviewed in 2008 (Dargo, 2008). The reviewer found that any programme that encouraged healthy nutrition at an affordable cost to northern communities was important and eliminating it would threaten food security in these communities (p.4). Wide ranging recommendations were made for completely overhauling the programme's governance and management, eligibility criteria, subsidies, and partnership and delivery models with retailers.

Food Alliance for Remote Australia

The cost of fresh food in remote communities in Australia averages 150-180% higher than capital city prices. Isolated stores carry very little fresh food because of freight costs, infrequent deliveries, lack of cool storage, and lack of management expertise. This means that in many remote parts of Australia, whole communities live in an environment of food insecurity compounded by poverty. The resultant poor nutrition is just one of the many factors contributing to poor health among Aboriginal people, who are disproportionately affected and have a shorter life expectancy by 16-20 years than non-Aboriginals.

The Food Alliance for Remote Australia <http://www.fara.bite.to/> was formed in 2003, based on a human rights approach that all people should have a standard of living adequate for health and wellbeing. Strategies identified to improve the quality and affordability of food in remote communities have mostly been at policy level such as regional stores policies, action plans, and store charters. The Fred Hollows Foundation has a Nutrition Program to mentor, train and advise community store management committees, local managers and staff which has shown some success but has relied on government assistance and philanthropy for major contributions. For a description of the various initiatives see Price (2004).

Because New Zealand does not have the same degree of remoteness as Canada and Australia, these initiatives are not of key interest. However, they constitute another example of the human rights approach for all people to have an adequate standard of nutrition.

2.5.5 School food programmes

School food programmes seek to reduce hunger and enhance nutrition among children who are considered at high risk of poor nutrition (Friendly, 2008). A Cochrane systematic review (Kristjansson et al., 2007) examined nine studies of school meal programmes for disadvantaged students in high income countries. Some of these studies were very old (the earliest was 1926) and only three took place within the last 15 years. The earlier studies, while well conducted according to the standards of

the times, were not described in enough detail to meet current quality criteria. However, it was possible to identify some statistically significant outcomes².

- In a year-long British study of boys, those who received school milk gained 1.42kg more than controls over 12 months (95% CI 1.19-1.65) (Corry Mann, 1926 in Kristjansson et al., p.16).
- In a Canadian study children receiving a fortified drink gained 0.5kg compared to controls ($p < 0.0001$) with the best weight gains in younger children (Paige et al., (1976), in Kristjansson et al., p.16).
- The same Canadian study also reported height gains of 1.0cm in 7 year olds, and 0.6cm in 8 year olds (both $p < 0.01$) (Paige et al., (1976) in Kristjansson et al., p.17).
- Higher serum vitamin C, serum vitamin A and serum carotene were reported in children who were frequent attenders at a Red Cross school lunch programme in Canada. The results were said to be statistically significant but data was not given by the Cochrane Review (Tisdall et al. (1951) in Kristjansson et al., p.18).
- The Canadian study by Paige et al. (1976) reported a larger increase in haematocrit in the intervention group than in controls ($p < 0.0001$) (Kristjansson et al., p.19).
- Improved school attendance of between 2-3 days a year in children who regularly received school nutritional interventions was reported by three different studies but no statistics were given (Kristjansson et al., p.19)
- More recently, two controlled before-and-after studies of high school students in Washington State who participated in an in-class breakfast programme found that the mean percentage of on task behaviour rose from an average of 49% to an average of 90% (Bro et al.(1994); Bro et al. (1996) in Kristjansson et al. p. 21). However these were small studies and the Cochrane reviewers considered that the results may have been confounded by other interventions.

Because of the changing social context over the eight decades that have passed since the first of these studies these results should be used with caution. The review concluded that school meals have benefits for disadvantaged pupils but there is a lack of well designed studies that have gathered robust data on outcomes.

Other examples of school-based programmes tend to be related to healthy eating rather than food security and are not reviewed here. In Canada, there are programmes to connect individual schools with local farms to improve the standard of meals in school cafeterias, provide health and nutrition educational opportunities, and support local small farmers (Friendly, 2008) p.29. School gardening programmes are also well established in a North America and Australasia.

2.5.6 Community supported agriculture

Two examples of community supported agriculture were located in the review. One is a Canadian system whereby consumers purchase a share in a growers' harvest at the beginning of the season. Growers then provide a weekly harvest that is distributed to the shareholders. Consumers benefit from the fresh, high quality produce, and

² These studies are reported in detail in the Cochrane Review. They are not referenced individually in this paper.

growers benefit from having a secure market for it (Friendly, 2008). Another initiative, the Farmers Market Nutrition Program is a US federal-state partnership to provide fresh, locally grown produce to low income consumers at nutritional risk. It is targeted particularly at beneficiaries and elderly, and aims to expand consumer awareness and use of local produce sold at farmers markets (Dollahite et al., 2005). Coordination effort and the involvement of local farmers were the focus of the one article located about this initiative.

There were no evaluations of either of these programmes located in the literature search.

3. Policies to address food insecurity

It becomes clear from the literature on community based interventions that they have a very limited effect on food security. Policy documents, especially from Canada, where food security interventions are most developed, demonstrate that a wide ranging approach across multiple sectors, both public and private and at all levels of government is necessary. Several major documents were located in the search. Their recommendations are summarised below.

3.1 Canada

Towards food security policy for Canada's social housing sector (2008).

This report from the Canadian Policy Research Network starts with background information on the context of food insecurity in Canada, the breakdown of the social safety net, and the fragmentation of food security policy at all levels of government in Canada (Friendly, 2008). It then goes on to outline responses to food insecurity and how these can be linked in with social housing issues.

The final list of recommendations (p51-52), although developed for social housing providers, could just as well be applied to other health or other organisations that have responsibility for overall community health and wellbeing.

At the national level

- Social service providers should advocate for income security, social programme spending and other initiatives that affect household financial resources. Up-stream policies are fundamental to any long term strategy to tackle food security.
- All levels of government have a responsibility to fund programmes that support food security.

At the organisational level

- There should be an organisational commitment to food security such as a strategic plan for a comprehensive course of action over the long term.
- The development and maintenance of food security programmes such as farmers markets, community gardens, community kitchens etc should be supported.

At the programme level

- Approaches should be multi-pronged and linked together, for example community gardens/community kitchens.
- Existing programmes and talents should be coordinated in a systematic way.
- Food programmes should be integrated with economic development and youth programmes.
- Both top down and bottom up strategies should be supported.
- Staff support is required to support systematic outreach and facilitation.
- Other resources already available such as buildings, land, access to water, partnerships, and staff skills should be made use of.
- The importance of partnerships with community centres and agencies, local groups and networks, municipalities and other non-profit agencies should be recognised.
- Funding needs to be sustained and bolstered through any community funding schemes.
- Education about food, nutrition, and local farming issues should be integrated into all programmes.

The full report is available at :

<http://www.nwep.ca/system/files/Towards%20Food%20Security%20Policy.pdf>

Provincial approaches to food security: a scan of food security related policies in Canada (2009)

This annotated list of policies, programmes, and government reports from all provinces and territories of Canada highlights innovative examples as well as general trends in food security approaches (Epp, 2009). It is described as being useful for anyone "...developing policy with an interest in precedent from other jurisdictions or promoting policy change" (p.4)

Agricultural, marketing, school-based, sustainability, indigenous, healthy eating, and wellness approaches are included. Particular points noted from the concluding overview were:

- Although all provinces and territories have programmes addressing one area of food security, there is a lack of larger overarching food policies that bring together both agricultural and health concerns.
- School based healthy nutrition programmes are far more developed than any others and appear to be a high priority for policy makers.
- There is still significant work needed in remote, northern communities which are relatively neglected.
- Financial support for local food programmes is still in its infancy and few areas have invested in the infrastructure necessary for local food production and consumption.
- Despite successes and increased attention, food security remains a pressing issue in Canada.

Implementing community food action in British Columbia: criteria for success and the role of the health sector (2006)

This report (Provincial Health Services Authority and Community Food Action Team, 2006) was commissioned to investigate the role of public health in community food security and identify success factors for implementing and sustaining food security initiatives. Four well established community initiatives in British Columbia were used as case studies. The report found that the most effective role of the public health sector was to focus on coordination, support with resources, funding and project management.

Criteria for success of initiatives were found to be

- a clear idea of what is to be achieved and how to get there
- the ability to facilitate and bring together different people and perspectives, resolve conflicts and build trust
- the ability to secure meaningful funding and in-kind support
- being rooted in communities that have real food needs
- the ability to build a team of professionals, dynamic workers, and volunteers
- responsive systems that keep people informed, engaged and ready for change
- working in partnership with a wide range of organisations to foster a sense of shared ownership
- the integration of grass roots activities with more formal organisations through forming networks or food policy councils. This last point was a major success factor common to all the case studies.

Criteria for implementation and sustainability were listed as:

- reconciling different agendas and providing a solid foundation for stakeholders to work together
- secure funding – food projects take a long time to become established and require funding to support on-going success
- genuine involvement of local people as equal partners
- professional support in time, resources, and authority to invest in the project
- credibility
- shared ownership – a sense of collective investment by stakeholders
- leadership – a few dynamic individuals who mobilise support and generate momentum
- the ability to adapt as the project evolves
- networking and partnership building.

This useful report made three recommendations for future planning. Firstly that there should be a greater emphasis on evaluation. The case studies showed that there is “...a gap in evaluating community food security in terms of measurable outcomes which resonate with decision makers.” Secondly, that the health sector needs to take a leading role in developing intersectoral strategies and policies to address community food security, and lastly, that food programmes need to look at a wide range of health issues outside of nutrition alone.

The full report is available at <http://www.phsa.ca/NR/rdonlyres/76D687CF-6596-46FE-AA9A-A536D61FB038/18906/PHSAreportCFAICFSreport.pdf>

Toronto Food Policy Council

The Toronto Food Policy Council partners with business and community groups to promote food security through policies and programmes. It aims to foster equitable food access, nutrition, community development and environmental health. More information is available at http://www.toronto.ca/health/tfpc_discussion_paper.htm

There is a small staff and a modest budget. Staff are employed by and responsible to Toronto Public Health. Staff and Council members serve as catalysts and brokers to bring people together from different organisations, assist in finding new ways to solve old problems, and advocate for policy change at the municipal, provincial and national level. The website reports that the Council has worked in an innovative and effective way and has gained international respect from public health, community food security, and sustainable agriculture organisations.

Publications of the Food Policy Council are available on the website. However, these are now relatively old, none having been posted since 2000.

3.2 Australia

Food security options paper: a planning framework and menu of options for policy and practice interventions (2003) NSW Health

This report from NSW Health (Rychetnik et al., 2003) covers background information on nutrition inequalities and determinants of health, intervention options to improve food security and examples of international and Australian interventions. However, many of the examples given for improving access to food do not go beyond approaches such as educational/life skills training, or emergency food aid.

Most worth mentioning from this document is the considerable emphasis on increasing access to locally grown fresh produce. Initiatives relating to food production (p.31-32) include home gardens, community allotments, community gardens, school gardens, and edible landscapes.

Also mentioned are the range of measures that could be used to support farming and agriculture so that farmland is retained on the urban fringe and can generate fresh produce at reduced prices for direct purchase, preserve jobs and retain skills, and maintain "...the rural sociology of the area that is often highly valued by the community and visitors." (p. 32) The kind of measures mentioned include

- subsidies and schemes to make farming economically viable and assist families to retain their land
- regulations and zoning that allow farming and residential areas to coexist peacefully
- tax incentives to grow food for local consumption.
- direct sales and roadside stalls that allow farmers to sell without transport and packaging
- schemes for community supported agriculture through the direct sale of farm shares.

This document is available at

http://www.health.nsw.gov.au/pubs/2003/pdf/food_security.pdf

Two other documents from the City of Port Phillip and the City of Greater Geelong were located (Victorian Local Governance Association, 2008; Wood and Streker, 2005). Both of these are “vision” type documents to start discussion on “dimensions and opportunities” for municipal food security. They do not have any concrete examples of interventions or evaluations but are useful for the intention displayed to take a cross sectoral approach to addressing food security.

3.3 UK Toolkit

Nutrition + food poverty: a toolkit for those involved in developing or implementing a local nutrition and food poverty strategy (2003)

This lengthy document (Press, 2004) was produced by a number of British public health units, and the National Heart Forum. In spite of the title the focus is fairly narrowly confined to healthy eating interventions delivered through primary care, schools, and workplaces.

The report does, however, list examples of good practice for food programmes in schools, workplaces, primary care, and communities (p. 126). These are substantially the same as those given in the Canadian reports, and include

- having clear goals
- partnerships with public, private, and local community organisations
- real involvement of local people
- energy and commitment from all parties
- sufficient intensity and duration of programmes including sustainability of ongoing funding
- reconciling different agendas of professionals, volunteers, and users
- shared ownership and credibility between organisations and communities
- using multiple strategies for supportive environments.

However, one notable difference is the recommendation that there should be a “focus on diet alone or diet and physical activity rather than tackling a range of different health risk factors”. This is directly in contrast to the Canadian and Australian approaches which emphasise a broad response across all sectors of government as well as social capital and community capacity building considerations.

The full report is available at

<http://www.ana.org.nz/documents/ToolkitforfoodpovertyUK.pdf>

4. New Zealand food security activities

4.1 Food Security among Maori in Aotearoa (2009) Parts One & Two

This two-part document (Te Hotu Manawa Maori, 2008; Te Hotu Manawa Maori, 2009) sets out the disparity between Maori and non-Maori in food security and the evidence for the links between food insecurity, obesity, and poor health status.

Details of 27 current projects are listed, mainly in the North Island. They include education and life skills, budgeting, school gardens, school breakfast and fruit programmes, integrated services and referral systems and advocacy. Organisations running the programmes are diverse: District Health Boards, Health and Education ministries, church groups, Maori health providers and community groups, schools and kohanga reo, and charitable trusts. The aim of this overview of current activities is to provide information to "...those who are working in the health sector about the current situation", to assist with contacts for networking, to inform submissions, and to guide the development of local campaigns. Individual programmes that have been or are undergoing evaluation are noted but no outcomes information is available.

Part Two of the document outlines lessons learnt from eight case studies. Most of the key points echo those in the international literature relating to engagement of stakeholders, the importance of prior planning, building relationships, and good communication. Other lessons mentioned are to start small, be consistent, don't give up, and keep advocating for change.

Advocacy for policy change was only noticeable in a few of these projects. While many involved community groups and local health providers, and some involved private sector groups such as growers, retailers or wholesalers, only one or two had sought the involvement of local and regional councils. In fact, some projects named their dealings with councils as one of their main difficulties.

These documents are available in full from

http://www.tehotumanawa.org.nz/documents/File/food_security_web.pdf (Part One)
<http://www.obesityaction.org.nz/docs/FoodSecurityMaoriPt2.pdf> (Part Two)

4.2 *Food security for Pacific peoples in New Zealand (2009)*

This recent document (Rush and Rusk, 2009) follows much the same format as the publications on Maori food security with background information and examination of the current status of food insecurity among Pacific peoples. Attention is drawn to the way Pacific peoples are different, especially in their strong affiliation with churches, the importance of lavish food servings, and the impact of the changes from their traditional diet because of their relatively recent arrival in New Zealand. A "Compendium of Interventions" is given including six local projects taking place in different parts of Auckland and two national workforce development programmes. The Healthy Kai project, (also mentioned in the Maori food security reports) is the best example of an intersectoral collaboration between health groups and territorial local authorities. The aim is to create change in the way healthy food is promoted in shopping centres, take-away and ready-to-eat food outlets, and the wider community and is supported by partnerships with primary care and local agencies.

Recommendations from this report were for

- policy initiatives that improve access to and affordability of nutritious food such as reductions in GST, and urban planning to ensure an even distribution of supermarkets
- promoting healthier choices in local food outlets, budgeting and recipe advice suitable for Pacific tastes, and the promotion of farmers markets
- tackling workplace health to ensure healthy choices are available
- social marketing with labelling, point of decision material, media advertising, champions and role models
- food industry partnerships to provide lower fat milk, and wholemeal bread at the same cost as the less healthy alternatives and reformulating commonly consumed foods
- promoting healthier choices and food guidelines for cultural and community occasions; promoting home gardens
- workforce capacity building including fees exemptions for Pacific Island students
- consistent messages across the life cycle across all sectors

The full report is available at

<http://www.obesityaction.org.nz/pfsr/PacificfoodsecurityreportfinalMarch09.pdf>

4.3 *Food security: current research initiatives, globally and in New Zealand (2008):*

This power point presentation (slides only) was given by Winsome Parnell and Claire Smith at the Nutrition Society of New Zealand conference 2008 (Parnell and Smith, 2008). It consists of notes only but indicates good contacts who are working actively on research in the area of food security. Key points from the presentation are:

- the status of food security in New Zealand and issues relating to obesogenic environments
- the lack of evidence linking community gardens to increased food security either internationally or in New Zealand.
- that gardening is unsuitable in some areas because of the requirement for land, skills, tools and time
- that economic factors are the most significant factor in food security and that interventions ignoring economic underpinnings are ineffective.

The power point presentation is available from

<http://www.ana.org.nz/documents/FoodSecurityNutSoc2008.pps>

4.4 *Other New Zealand resources*

Agencies for Nutrition Action food security publications and links

<http://www.ana.org.nz/foodseclinks.php> <http://www.ana.org.nz/foodsecpubs.php>

Obesity Action Coalition documents

<http://www.obesityaction.org.nz/documents.html>

5. Some reflections on the literature and its meaning for Community & Public Health

The food insecurity situation in New Zealand appears to be similar to that in Canada and Australia. The same groups in society are affected by food insecurity.

Most of the community-based interventions that have been reported internationally are also being attempted here, particularly efforts to increase fruit and vegetable distribution and consumption. These have traditionally been presented as “healthy eating” programmes rather than as efforts to increase food security, though clearly there is considerable overlap. No reports of community kitchens in New Zealand were located, though there may well be some informal programmes running.

There is good information about how to plan, coordinate, implement, and evaluate community-based food security programmes and much of it is likely to be already incorporated into the way Community & Public Health works. International examples are useful even if only to confirm that C&PH staff are already following what is currently known about best practice.

Evidence of improvement in food security status for programme participants has been elusive even from well run programmes and is hard to measure; psychosocial benefits seem to be somewhat more clearly established, but almost all the results are based on self-reported responses in a small body of qualitative literature. The evidence about what works should grow as more programmes are evaluated and reports written. It is important that C&PH continues to place importance on evaluating and disseminating the results of our own programmes as widely as possible across academic, government, and public sectors to add to this evidence base.

Even the best community based programmes can only improve food security and quality of life for the immediate participants. There may even be a potential danger in too much success if it is achieved at the expense of a few hard working professionals and volunteers working on shoe-string budgets and so allowing local and national authorities to believe that they need to do nothing.

If the Canadian experience is taken as our model, there is much scope for Community and Public Health to advocate for action at a higher level and to work for policy change across all levels of government. Efforts in New Zealand still seem to be almost exclusively limited to the health sector and schools, with only a few examples of projects that had managed to engage both the public and private sector, as well as community groups. The current economic and political situation is an unpromising one in which to work, but there are some existing areas such as the Healthy Christchurch intersectoral partnership that could potentially be used to initiate activities similar to the Toronto food policy council and to take a lead on raising awareness and interest in food security across multiple sectors.

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