Improving Nutrition in NSW Series

# Food Security Options Paper:

## A planning framework and menu of options for policy and practice interventions

The University of Sydney

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*Improving Food and Nutrition in NSW Series:*

# Food Security Options Paper: A planning framework and menu of options for policy and practice interventions

A NSW Centre for Public Health Nutrition project for NSW Health

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# Contents


***Acknowledgements*** ii

***Glossary*** iv

***1. Introduction*** 1

- Brief outline 1
- Aims, objectives and target audiences 1
- Prevalence of food insecurity 2
- Who is food insecure? 4
- Health policy context 5
- Rationale for a food security options paper 6
- How to use this document 8
- A few suggestions for practice 9
- References and further reading 10

***2. Nutrition inequities and food security*** 12

- Expanded perspective on improving diet and nutrition 12
- Defining food security 12
- *Figure 1. Determinants of Food Security* 14
- Describing determinants of food security 15
- Measuring and monitoring food security 17
- Points of intervention to improve food security 18
- *Figure 2. Points of intervention to improve food supply* 19
- *Figure 3. Points of intervention to improve access to food* 20
- References and further reading 22

***3. Intervention options to improve food security*** 23

- Introduction 23
- *Table 1. Overview of intervention options* 24
- Generic intervention strategies 24
- *Food policy coalitions or councils* 24
- *Research, monitoring, and evaluation* 25
- *Advocacy for food security* 26
- *Government subsidies and incentive schemes* 27
- *Community development and grant schemes* 28
- *Harnessing applied technology* 28
- Interventions to improve food supply 30
- *Education about the food and nutrition system* 30
- *Food production* 31
- *Food processing* 32
- *Food transport* 33
- *Food retail outlets* 34
- *Prepared food outlets* 36
- *Food aid and subsidised meals* 37
- Interventions to improve access to food 39
- *Integrated services and referral systems* 39
- *Income support* 40
- *Transport to food suppliers* 41
- *Storage and kitchen facilities* 41
- *Health education: food and nutrition, and life skills* 42
- References and further reading 43

***4. Background information*** 48

- The determinants of health 48
- *Figure 4. A framework of socioeconomic determinants of health* 49
- Addressing inequities in health 51
- References and further reading 54

***5. Examples of interventions*** 55-104

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* The interventions described in Section Three are based on Australian intiatives in curriculum development, research and monitoring, and policy/practice development; the Penrith Food project; and overseas materials collated by Karen Webb during periods of work experience, study leave, and study tour with US leaders in food security policy and practice.

# Glossary

### *Food security*

Food security refers to the ability of individuals, households and communities to acquire appropriate and nutritious food on a regular and reliable basis, and using socially acceptable means. Food security is determined by the food supply in a community, and whether people have adequate resources and skills to acquire and use (access) that food.

### *Food insecurity*

Food insecurity can refer to the following: not having sufficient food; experiencing hunger as a result of running out of food and being unable to afford more; eating a poor quality diet as a result of limited food options; anxiety about acquiring food; or having to rely on food relief.

### *Inequality*

Inequality is a term used to describe observed differences or disparities between variables. The term makes no intrinsic judgement about those differences.

### *Inequity*

Inequity is used to describe inequalities that are considered unjust: thus inequity has an additional moral or ethical dimension that indicates unfairness in the inequalities that have been observed.

### *Inequalities and inequities in health*

Inequalities in health describe the differences in morbidity and mortality between different countries or different population groups within countries. Inequalities are described as inequitable when they are beyond the control of the individual, and yet could be prevented or alleviated through intervention.

### *Social and economic determinants of health*

Factors such as education, employment, income, job security, occupation, working conditions, housing, area of residence, social support and social cohesion all affect the health and wellbeing of individuals and populations. Disparities in wealth and social standing are associated with disparities in morbidity and mortality. Social and economic determinants of health also impact on food security.

### *Poverty and disadvantage*

Social and economic status can be considered in absolute and relative terms. Terms such as poverty or disadvantage are often used to describe groups with the lowest socioeconomic status, where material deprivation in absolute terms directly impacts on health and health-related behaviours. In addition to absolute poverty, relative disadvantage can also affect health outcomes.

### *Interventions*

Interventions include policies, programs or actions intended to bring about identifiable outcomes. Interventions to address food security will often rely on strategies that are planned and implemented in collaboration between health and other sectors, or completely outside the health sector.

### *Upstream, midstream and downstream interventions*

Factors that have the most direct or immediate impact on the outcome of interest can be described as downstream interventions. For example, providing income support or reducing the cost of food can have a direct impact on individual or household food security. A midstream intervention such as establishing a food policy coalition will take longer to affect individuals, but may lead to more sustainable action to improve the local food supply and people's access to food. Upstream interventions are longer-term strategies that aim to address structural, social and economic determinants of food security, such as employment, income levels, and education.

*Sources: see reference list at the end of Section One.*

# 1 Introduction

Access to good, affordable food makes more difference to what people eat than health education. (WHO, 1998)

## Brief outline

Food and nutrition are important aspects of health and wellbeing. Poor nutrition due to insufficient, low quality or unreliable food intake leads to ill health. It also contributes to existing inequities in health because inadequate or poor quality food intakes are most commonly experienced by people with the worst social and economic status and other forms of individual or environmental disadvantage. This document is a guide to intervention options for reducing the inequities in health caused by inadequate, low quality or unreliable food intake. It describes policy and practice interventions for improving the diet and nutrition of disadvantaged groups.

Concerns about food intake among disadvantaged groups are encapsulated in the term *food security*. Food security refers to the ability of individuals, households and communities to acquire appropriate and nutritious food on a regular and reliable basis. Food security is determined by people's local food *supply* and their capacity and resources to *access* and use that food.

Food insecurity (lack of food security) among disadvantaged and low income groups has been empirically demonstrated in many countries in the developed world, including Australia. Current debates concern what can, or should, be done to improve food security. The uncertainty about interventions exists partly because the concept of food security is relatively new in the policy and practice settings of developed countries. In many places interventions aimed at improving food security are being implemented and evaluated for the first time. There is great potential in NSW to adopt an innovative and coordinated approach towards improving the food security of disadvantaged groups. The aim of this report is to inform that process by presenting a model of food security and describing a wide range of policy and practice options to address food security.

### *Structure of this report*

Section One includes a rationale for addressing food security, outlines the methods used to prepare this paper, and identifies how the paper can be applied. Section Two presents a framework of the determinants of food security, which can be used to identify points of intervention to modify those determinants. Section Three describes a wide range of policy and practice intervention options to improve food security; these options are categorised as follows: generic intervention strategies; interventions to improve food supply; and interventions to improve access to food. Section Four provides background reading on the social and economic determinants of health, and inequities in health. Examples of interventions that have been conducted in Australia or overseas are presented in Section Five.

## Aims, objectives and target audiences

### *Aims*

The aims of the food security options paper are as follows:

- Promote food security as a key agenda for policy and practice to address the food and nutrition component of health inequities.
- Promote inter-sectoral and multi-strategy options for policy and practice interventions to improve food security.

### *Objectives*

The objectives of the food security options paper are as follows:

- Define food security/insecurity, and describe the nature of the problem of food insecurity in Australia and overseas.
- Develop and present a framework of food security that identifies the important determinants of food security (as related to food supply and access to food).
- Describe the relations between the food and nutrition system; the capacity of individuals or households to acquire food; and the social and economic determinants of health.

- Use the food security framework to identify points of intervention for improving food security; and to organise and present intervention options.
- Identify examples of each type of intervention, and guide readers to sources of further information on these examples.
- Select intervention examples that encourage collaboration between nutritionists and those working to address health inequities; and consideration of inter-sectoral and multi-strategy intervention options.
- Provide background information on recent developments in public health policy and practice to address the social and economic determinants of health and inequities in health.

### *Target audiences*

Primarily, the document was prepared for the following potential users:

- *Policy makers, practitioners, researchers and other advocates who seek to address inequities in health.*

  The menu of options is intended to assist those working to reduce health inequities to consider the range of interventions that address the food security and nutritional status of disadvantaged communities. The intention is that these interventions to improve food security will be incorporated into broader initiatives to address inequities in health.
- *Community nutritionists and dietitians seeking to contribute to improved public health policy and practice.*

  The menu of options is intended to assist nutritionists and dietitians to initiate, collaborate on, or advocate for, projects aimed at improving food security. It is also intended to assist them to apply their knowledge of food and nutrition to enhance mainstream initiatives targeting health inequities or their determinants.
- *Social policy makers and practitioners who seek to improve their collaboration with the health sector; and incorporate food and nutrition programs into their portfolio.*

  The menu of options may assist those outside the health sector to identify areas in which they could collaborate with health professionals to improve the food security of their constituents.

## *Prevalence of food insecurity*

As a nation, Australia can be considered to be food secure. Within Australia however, as in many other developed countries, there are pockets of food insecurity. This means that sections of the population experience hunger as a result of insufficient food or eat a nutritionally inadequate diet due to poor food options. They may also suffer from anxiety and other psychological ill effects because their food supply is of poor quality, their capacity to acquire food is unreliable, and the situation of being unable to acquire enough food carries a lot of social stigma.

In 1995, the *Australian National Nutrition Survey* included a question related to food insecurity. The question asked was as follows:

> *'In the last 12 months, were there any times that you ran out of food and couldn't afford to buy any more?'*

Across all social and economic groups, 5.2% adults (> 19yrs) answered 'yes' to this question.

The rate of food insecurity was much higher among the unemployed, of whom 11.3% answered yes to the above question. Among those paying rent or board, 15.8% answered yes to the question *(Marks et al 2001)*. It is also likely that these rates underestimate the true prevalence of food insecurity in Australia. This is because the single question that was asked in the *National Nutrition Survey* addressed only one dimension of food insecurity; that is, it did not measure rates of hunger, anxiety about acquiring food, or reliance on food aid. It is also likely that the 1995 data underestimate the true prevalence of food insecurity because the most disadvantaged and vulnerable members of a community are usually under-represented in general population surveys *(Wood et al, 2000)*.

The *2001 NSW Child Health Survey* asked several questions about food insecurity, including the one asked in the *1995 National Nutrition Survey* (above). Across the general population, 6.2% of the respondents reported that in the last 12 months they had run out of food and couldn't afford to buy more. Parents from low income areas were three times more likely to run out of food and not have enough money to buy more than parents from other areas (9.9% in Macquarie Area Health Service

versus 2.8% in Northern Sydney). Among the respondents who reported having run out of food and not being able to afford more, three quarters (74.6%) said that they ate the same thing for several days in a row, and 43.7% reported that their children were not fed balanced meals. Also among these parents and carers, 32.3% reported that their children were sometimes hungry because they had run out of food, and 25.5% reported that their children were not eating enough.

In the *1999 NSW Older People's Health Survey,* 1.9% of the older population reported that in the last 12 months they had run out of food and could not afford to buy more. The rates were higher in particular areas such as Central Sydney (3.5%) and Western Sydney (3%). However, because older people also experience food insecurity as a result of being disabled and/or housebound *(Lee & Frongillo, 2001)*, these findings do not reflect the total level of food insecurity among older people (the survey asked only about running out of food and money to buy food). It is also likely that the most vulnerable older people are the least likely to participate in general population surveys.

In New Zealand, questions were asked about food insecurity in the *1997 National Nutrition Survey.* Overall, 14% of the adult population reported that in their household:

> *'Food runs out often or sometimes because of lack of money.'*

In addition, 27% of the adult population reported that the variety of food they are able to eat is limited by a lack of money, and 7% reported that when they don't have enough money they rely on others to provide food and/or money for food. In addition, 12% of households responded that they feel stressed because of not having enough money for food, and 4% reported that they had made use of a food grant or food bank in the last year (Russell et al, 1999).

The *Canadian National Population Health Survey* also monitors food insecurity (Che and Chen, 2001). The 1998/9 survey found that 2.5 million Canadians (8% of the population) had to compromise the *quality* or *quantity* of their diet because of a lack of money. Also, around three million Canadians (10% of the population) were identified as living in a 'food insecure' household.

The rate of households classified as food insecure was substantially greater among single-mother households (32%), and low income households (35%). (Households were classified as food insecure when the person responding on behalf of the household acknowledged any of the following circumstances stemming from a lack of money: worry that funds would be insufficient to buy food; not eating the quality or variety of food desired; or not having enough to eat.) The survey also found that about one-fifth of individuals in food insecure households received help from food aid programs such as food banks, soup kitchens and other charitable agencies. People in food insecure households also reported three times the rate of emotional distress compared to those in food secure households (31% compared to 10%). Other Canadian research has indicated that there are significant discrepancies between welfare incomes and basic living costs, which impact on the affordability of a nutritious diet for households reliant on welfare *(Vozoris, 2002)*.

The United States Department of Agriculture monitors food insecurity and hunger in an annual survey of 40,000 households. In 2000, 10.5% of US households were identified as being food insecure. In a third of those households identified as food insecure, one or more members had experienced hunger because they could not afford to buy enough food. The remaining food insecure households had avoided hunger by eating less varied diets, and/or accessing food aid programs or emergency food relief. Two thirds of those households that reported hunger had experienced hunger for three months or more every year. The highest rates of hunger among children were found in single parent families, female-headed households and households with lowest incomes *(Nord et al, 2002)*.

## Who is food insecure?

### *People on low incomes (absolute or disposable income)*

Available data indicate that food insecurity is experienced by people who are socioeconomically disadvantaged and/or have low disposable incomes. Examples include the unemployed, low wage earners, single mothers and indigenous communities. In 1999, the New Zealand Network Against Food Poverty (NZNAFP) published *Hidden Hunger-Food and Low Income in New Zealand*. This report collated empirical research to demonstrate that food insecurity is primarily caused by: inadequate income; other forms of material deprivation such as poor kitchen and cooking facilities; and the high cost of accommodation and basic living costs that reduce the amount of money available for food. *The Hidden Hunger* report also demonstrated the high cost of a healthy diet relative to welfare payments or minimum wage rates; and that overall, low income families are good at budgeting but have too little money for all their basic needs. In addition, low income families have difficulty obtaining food at the lowest prices due to lack of transport, storage, or money to buy in bulk; and consume fewer convenience, take-away, and prepared foods than the rest of the population. Low income groups also have higher rates of overweight and obesity, and are more likely to have inadequate dietary intakes of vitamins, minerals and fibre.

There is a large body of literature that shows a strong correlation between diet quality and socioeconomic status *(James et al, 1997; Dowler, 2001)*. Diet quality is also affected by food insecurity. People who experience food insecurity tend to eat a less varied diet and have been shown to consume diets of poorer nutritional quality *(Kendall et al, 1996)*. In particular, people with food insecurity consume foods with lower levels of micronutrients (vitamins and minerals), dietary fibre, vegetables and fruit. Paradoxically, food insecurity is sometimes associated with higher rates of overweight and obesity *(Townsend et al, 2001; Alaimo et al, 2001; Che and Chen, 2001; Sabel & VanEenwyk, 2002)*. This appears to be primarily because people who experience food insecurity rely more on high-fat/high-calorie foods that are filling and provide a cheap source of energy, and may be more likely to binge eat when food is available *(Wood et al, 2000; NZNAFP, 1999)*.

However, not everyone who is poor experiences food insecurity or hunger. Half of those experiencing hunger in the USA in 1995 had an income above the poverty level, and in Canada, 14% of middle-income households reported some form of food insecurity. Thus, although food insecurity is significantly influenced by income, it is not confined only to the poorest members of a population. Food insecurity is sometimes experienced by people on moderate incomes who have higher than average living costs, which severely limit the disposable funds available for acquiring food. Higher than average expenses may be due to living in a high rent area, large mortgage and other loan repayments, or expenses associated with chronic illness or disability. Unexpected events which also stress household budgets include sudden illness, losing a job, or acquiring a new household member *(Rose, 1999)*.

It is important to note that the questions asked about food insecurity in national or state surveys determine who among the food insecure are actually identified. For example, Australian and New Zealand surveys have primarily examined the relationship between the availability of food and the availability of money; and (in the *NSW Child Health Survey*) the impact this has on food intake. Factors other than income have been shown to contribute to food insecurity or hunger, but their impact has not been monitored on a national or state level. The full scale and nature of food insecurity in Australia is unlikely to be detected unless all the contributing factors are included in surveys, and targeted studies are conducted among hard-to-reach groups, such as homeless youth or frail older people.

### *People with other disadvantages or special needs*

People who are disadvantaged or have special needs as a result of disability, ill health or other physical or social factors are also at risk of food insecurity. Examples include people living with disabilities, homelessness, mental illness, and drug and alcohol dependence; or people disadvantaged by geographic location, such as those who live in rural or remote areas; or people living in residential areas not serviced by a supermarket or adequate public transport (eg new housing estates) *(Smith, 2002; Dachner & Tarasuk, 2002; Booth and Smith, 2001; NATSINWP, 2001; Wolfe et al, 1996)*. These other determinants of

food insecurity either have a direct effect on people's ability to acquire food; or they increase the risk of food insecurity as a result of their correlation with poverty.

Different forms of disadvantage often interact and potentiate their impact on food security. For example, the clients of soup kitchens and other food assistance programs often experience a combination of two or more of the following: unemployment, homelessness, physical ill health, mental health problems, dependence on drugs and alcohol, and social isolation *(Trevena et al, 2001; Johnson & Parsons, 1994)*.

Finally, food insecurity can be experienced by people with physical and intellectual disabilities and frail older people whether they live in their own homes (and experience difficulty with shopping and preparing meals), or live in residential care (and are reliant on others to identify and satisfy their food and nutrition needs). People dependent on carers are particularly at risk of hunger and malnutrition if they are unable to feed themselves or have special needs for food preparation and feeding *(Victorian Department of Human Services, 2001; Stewart, in press)*.

## Health policy context

In 1996, the Food and Agricultural Organisation of the United Nations convened a World Food Summit (WFS) to encourage all sectors of civil society to join forces in a concerted campaign to ensure food security for the world's people. The participants of the WFS developed the Rome Declaration on World Food Security and the World Food Summit Plan of Action (FAO, 1996). A 'WFS five years later' was convened in Rome in 2002, where participants assessed the progress that had been made to date and identified priorities for further action. Details of both meetings are available on the websites identified under FAO in the references below.

### Australian Food and Nutrition Policy

In 1992, the Australian (then) Commonwealth Department of Health, Housing and Community Services released a Food and Nutrition Policy. Although the term 'food security' was not used at that time, the aim of the policy was:

> *'to increase the availability of nutritious foods, especially in remote areas, to increase the affordability of nutritious foods for economically disadvantaged people, and to increase the understanding of good nutrition and foods.'*

### Eat Well Australia and National Aboriginal and Torres Strait Islander Nutrition Strategy and Action Plan

In 2001, the Australian Health Ministers endorsed *Eat Well Australia: the National Public Health Nutrition Strategy*, and its Indigenous component: the *National Aboriginal & Torres Strait Islander Nutrition Strategy and Action Plan* (NATSINSAP). The strategy endorsed the need to assure food security, and emphasised the need to address the food supply as well as an individual's capacity to acquire food.

*Eat Well Australia* identified a number of population groups that are especially vulnerable to food insecurity due to structural and financial constraints. The vulnerable groups included:

> *'people on low incomes; people with disabilities (physical, intellectual and developmental); chronically ill people (including people with mental health problems and people with dementia); frail older people; refugees; alcohol or drug abusers; and homeless people.'*

A key aim of *Eat Well Australia* was to promote food security among these vulnerable groups.

The indigenous nutrition strategy (NATSINSAP) highlighted food insecurity as a major problem for people in indigenous communities in urban, rural, and remote settings. NATSINSAP 'action areas' included 'food supply in rural and remote communities'and 'food security and socioeconomic status'of indigenous Australians.

***NSW Healthy People 2005***

In *Healthy People 2005: New Directions for Public Health in New South Wales*, one of three key initiatives over the next five years is to reduce health inequalities. The social and economic determinants of health, and population groups with special needs, are identified as important areas for attention. Two important strategies in this policy document are to:

1. Develop 'effective partnerships with other government agencies to influence the social determinants of health, especially income, literacy and housing'.
2. Reduce 'the impact of adverse socioeconomic circumstances early in life'.

Income, education and housing are also included as key determinants of food security in Section 2 (Figure 1) of this options paper.

***(Draft) NSW Health and Equity Statement***

Development of the NSW Health and Equity Statement commenced in 2000, with the aim of describing opportunities and strategies for the NSW health system to address inequities in health in NSW. 'Strong beginnings: investing in the early years of life' is one of six focus areas identified for strategy development. Food security is identified as a strategic direction of the 'strong beginnings'focus area, that is, 'to improve access to nutritious, affordable, and high quality food for vulnerable families'.

Other focus areas in the draft *NSW Health and Equity Statement* include increased participation: engaging communities for better health outcomes; developing a strong primary health care system; regional planning and intersectoral action; organisational development: building our capacity to act; and resource for long-term change in health and equity. Each of these focus areas also feature some of the intervention options to improve food security that are described in Section Three of this report.

***(Draft) Eat Well NSW***

*Eat Well NSW* (draft July 2002) identifies strategic directions for Public Health Nutrition for the next five years. Food security has been identified as one of five public health nutrition priorities. Areas for action include: measurement and monitoring of food security; leadership and advocacy of food security among key decision makers; consultation with disadvantaged communities to determine appropriate interventions; workforce development on intersectoral collaboration; and identifying and disseminating information about food security initiatives and options.

This report builds on *Eat Well NSW* to propose a food security framework for planning interventions, and a menu of policy and practice options to improve food security.

## *Rationale for a food security options paper*

As described above, food insecurity is experienced by segments of the population in many English-speaking developed countries, particularly by people in lower income or otherwise disadvantaged or vulnerable groups. The challenge faced by governments, government departments, and non-government agencies has been to develop and implement policies to address food insecurity that are effective and locally appropriate. Canada has been a leader in this field among English-speaking countries by providing food relief and food assistance programs to those who are food insecure, as well as developing a longer term, comprehensive and multi-sectoral action plan to address the causes of food insecurity (Canadian Food Security Bureau, 2002).

In NSW, the need for a food security options paper has been identified by policy makers and practitioners from public health and community nutrition. The rationale is to build on the national and state nutrition policy documents described above with further strategy development to address food security in NSW. This options paper was commissioned in response to requests received by the CPHN for more information about food security and food security intervention options.

### *Evolution of the project*

When food security was identified as a topic for the CPHN work program, it was conceived in the form of a review of the evidence on the effectiveness of interventions to improve food security. Several factors led to the decision to prepare an options paper rather than an evidence review. Firstly, the research question for such a review was quite unclear; particularly as there was no existing collation of potential interventions to improve food security, or identified measures of intervention outcomes and effectiveness. Secondly, there was a paucity of rigorous evaluation research that has examined the effectiveness and sustainability of interventions to improve food security-particularly interventions that aim to improve the food supply, as well as access to food. As a result, the CPHN determined that an evidence-based menu of options for interventions to improve food security would be premature and rather limited as a first option-too limited to be useful as a tool for innovative strategic development.

This options paper provides a food security planning framework and a description of the range of policy and practice interventions that have been, or could be, considered in order to address the food security of disadvantaged groups. It is important that those who implement such interventions conduct evaluation research in order to generate more evidence on the effectiveness of such interventions.

The options paper can also be used to identify targeted research questions for systematic reviews of the evidence on particular, clearly defined intervention options.

### *How the food security options paper was developed*

Many of the ideas for the food security framework in Section Two, and the range of interventions described in Section Three, have come from accumulated materials, observation, and experience of projects conducted in Australia and overseas. Key contributors whose materials and ideas have been used to prepare this paper have been identified in the acknowledgments.

### *Project steps*

The project steps were as follows:

- Reviewing food security materials collated from other projects-that is, examples of interventions collected during work experience, study leave and study tours (see acknowledgements).
- Reviewing materials and examples of interventions recommended by other researchers and practitioners in Australia and overseas in personal communications and professional networks (see acknowledgements).
- Searching and collating literature on the following topics: inequities in health, social and economic determinants of health, food and nutrition systems, and food security/food insecurity. The electronic databases searched included: MEDLINE, CINAHL, PsychInfo, Sociofile, AMI (Australian Medical Index), and ATSIHealth (Aboriginal and Torres Strait Islander Health Bibliography).
- Identifying from the literature the relevant conceptual frameworks and definitions of food security that could be used (or adapted) to structure the document and present a menu of intervention options.
- Consulting with experts in community nutrition and health inequities to modify existing frameworks for the purpose of this options paper. This involved a planning workshop in November 2001 (participants listed in acknowledgements), and discussions with the NSW Nutrition Network at their meetings in December 2001 and March 2002.
- Conducting further searches to identify additional examples (or further details) of interventions to be included in the menu of options. Sources of information included electronic databases, government and non-government websites, on-line publications, and other publicly available material such as policy documents and strategic plans, project case studies, and food and nutrition newsletters.
- Presenting a menu of options for interventions to improve food security, and selecting existing intervention examples. Emphasis was placed on identifying inter-sectoral and multi-strategy initiatives.

## How to use this document

This document can be used in a number of ways.

### *Understanding and monitoring food security/ food insecurity*

The paper provides an overview of the topic of food security, and provides a conceptual framework (Figure 1) which can be used to explain the determinants of food security to potential partners in policy and practice. Figure 1 can also be used to plan a local needs assessment of food security and to identify potential survey topics to monitor food security. The section on monitoring food security includes references and websites with further information about the survey questions that have been used in other countries.

### *Considering intervention options-policy or program planning*

Policy makers can use the paper to identify options for developing or reforming policies to address food security. Practitioners who wish to address food security in their local area may also use the document to consider the range of intervention options, and select those programs and strategies with the greatest local potential.

The intervention options described in this paper have been classified according their potential to address the determinants of food security identified in Figure 1 (listed under food supply or access to food). The generic descriptions of interventions are accompanied by examples of existing policy or practice, which are presented as one-page summaries. Each example identifies references or websites for those seeking more detailed information about the implementation and evaluation of that intervention.

### *Identifying questions for reviews of the evidence*

The paper can also be used to identify questions for conducting a review of the evidence on the effectiveness of the interventions presented. Review questions tend to be explicit and targeted in terms of the intervention strategy and the intervention outcomes to be assessed: that is, what is the impact of X on Y. However, food security is multi-factorial in terms of its determinants, the potential intervention strategies, and the anticipated outcomes.

The food security framework in Figure 1 and the menu of intervention options can be used by reviewers to identity manageable review questions. The review questions may focus on the process of implementing a complex intervention (eg what are the demonstrated requirements for establishing and maintaining a food policy coalition); or the effectiveness of a component strategy of an intervention (eg what are the effects of improving local transport routes to and from a supermarket).

### *Implementing and evaluating interventions*

Details about implementing and evaluating policy and practice are not often published in the mainstream literature, although such information is invaluable to practitioners and policy makers. The paper can be used to follow up and collate this type of practical information about the intervention examples. Each example is presented with contact details for further information-either as a website where the information has been posted; as contact details of practitioners who are willing to answer queries; or as details of organisations who distribute 'grey literature' such as project reports.

### *Further research and development*

Reviewers of this paper identified a number of topics suitable for further research and development to build on the food security framework and intervention options presented in this document. Their suggestions have been collated below:

- Develop a guide to assist decision-makers with the value-laden social, ethical, and practical process of formulating food security objectives; and weighing-up and selecting interventions from among the options presented in this paper.
- Develop evaluation tools and evaluation measures to guide process and impact evaluations of food security interventions.
- Describe the causes of food insecurity, and potential solutions, from the perspective of those who experience food insecurity in Australia.
- Describe the causal and associative relationships between food security and other aspects of living, for example: education and learning (that is, school or adult education and training); participation in employment; and participation in social and community activities.

## A few suggestions for practice

The following suggestions may be useful for practitioners who are inspired by the frameworks and intervention options presented in this paper, and are considering how to put them into practice. The suggestions were derived from practitioner comments and feedback on earlier drafts of the food security options paper.

### *Map local agents and initiatives relevant to food security*

The definition of food security presented in this paper (and Figures 1-3) can be used to develop a map of local agents of food security. For example, who is currently involved in initiatives that affect the quality of the local food supply (such as local council, chamber of commerce, farmers groups etc) or affect access to food (such as local transport, housing improvement projects, community development projects)? Also identify relevant policy and practice initiatives of government departments, non-government agencies, and resident or community groups, and include contact details of key people in these organisations.

A map of local agents of food security is likely to be a 'living' document, with modifications and additions required as new food security projects are established. It may be useful to identify those who are directly and explicitly addressing food security, and those who are addressing the determinants of food security (often without a clearly identified health or nutrition agenda).

### *Determine your role in promoting food security*

To address food security in your area, it may be useful to consider the role that you are able to fulfil in relation to the intervention options presented. It is useful to differentiate between those projects in which you are likely to act as the primary practitioner and those where you will act more as an advocate for change. For example, which one of the following roles is appropriate to your current position, skills, and capacity?

**Principal** – initiate project and take the primary role in its development and/or implementation.

**Collaborator** – work as one of several stakeholders in a partnership with other agencies and organisations to establish and implement a food security initiative.

**Advocate** – generate ideas and provide assistance (such as nutrition advice) to others who have a mandate and/or capacity to address food security, or its determinants.

### *Identify local food security/ food insecurity priorities*

Interventions can be planned to achieve longer-term health promotion or community development objectives; or to meet short-term direct assistance/emergency relief objectives. It may be valuable to identify local needs, priorities and objectives along these lines, before considering which intervention options could meet these objectives. For example, given the needs and priorities of your area (and employing organisation), do you hope to achieve the following:

- promote food security, and prevent food insecurity in the longer term
- resolve or reduce existing or intermittent food insecurity problems
- relieve the impact of chronic food insecurity, and minimise the harm of food insecurity on health and wellbeing.

For example, interventions such as modifying social and economic policies to improve the financial status of low income groups can be considered an upstream option because they promote food security in the longer-term. Interventions that directly affect a local food supply, or improve the capacity of individuals or households to acquire food, can be considered midstream interventions. Interventions that assist those who are chronically food insecure (such as food aid) and aim to minimise the impact of food insecurity on health and wellbeing can be considered downstream interventions.

NOTE: Classification of priorities and interventions as upstream or downstream are context-dependent and relative. It is thus appropriate that agencies make these determinations for themselves. (See Section Four – background reading – for more details on upstream, midstream and downstream interventions).

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# 2 Nutrition inequities and food security

> *'Social and economic conditions result in a social gradient in diet quality that contributes to health inequalities.' (WHO, 1998)*

## *Expanded perspective on improving diet and nutrition*

A nutritious diet is recognised as essential to good health. In developed countries, eating a nutritious diet has been seen primarily as reliant on healthy behaviours, rather than on social, economic or political influences. Interventions to promote healthy eating or adequate nutrition among 'at risk' groups have focused on improving knowledge, attitudes, and skills, and thus on modifying food choices.

Nutrition-related health education can be an important and effective strategy for improving diet. The effectiveness of health education does depend however on healthy food being readily available and accessible. Also, the benefits of improved knowledge and skills are gleaned only by those who have the resources and ability to acquire that food. Hence simple health education strategies can contribute to inequalities in health by improving the diet of some community groups, while merely causing anxiety and frustration for those who are already disadvantaged.

The limited effectiveness and potential harm of interventions that place too much emphasis on individual preferences has been recognised, particularly in circumstances where choice is inhibited by inadequate supply or inadequate access to healthy food.

It has become clear that a broader perspective is required to achieve a comprehensive understanding of food and nutrition problems and to plan effective interventions that facilitate healthy diets. One approach has been to consider food intake and nutrition status as the products of individual, household or community food security. Inequities in nutrition are often the result of insufficient food security among disadvantaged groups.

## *Defining food security*

> *'Food security involves... the ready availability of nutritionally adequate and safe foods and the assured ability to acquire food in socially acceptable ways (without resorting to emergency food supplies, scavenging and other coping strategies...).' (American Dietetic Association – see Kendall & Kennedy, 1998)*

Food security is a relatively new term that refers to individuals, households or communities being able to acquire appropriate and nutritious food on a regular and reliable basis, and using socially acceptable means. At the 1996 World Food Summit, convened by the Food and Agriculture Organisation of the United Nations, participants agreed that food security means that 'all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.' This definition has been adopted by many government organisations, including the US Dept of Agriculture and the Canadian Food Security Bureau.

The latter definition of food security from the World Food Summit is valuable as a broad statement of purpose or a 'mission' statement. The definition from the American Dietetics Association is more effective however, in emphasising that food security has many dimensions: that is, availability of food, ability to acquire food, nutritional factors, and the social aspects of food.

This options paper builds on the American Dietetic Association definition and presents food security as the product of social and economic systems that determine the supply of healthy food, as well as the resources and ability of individuals, households or communities to access that healthy food. A model which outlines factors that contribute to, or detract from, food security is presented in Figure 1 below.*

** This model integrates the concept of food security with aspects of a framework from McComb, Webb and Marks (2000) of factors influencing food supply and access to food.*

Some important indicators of food supply that impact on food security include: the location of food outlets, the availability of food within outlets, and the price, quality, variety and promotion of food. People's access to food depends on their financial resources, transport, knowledge and skills, storage, preparation and cooking facilities, and having time to obtain and prepare food. A description of the terms used in this model is provided below.

The concept of food security presented in Figure 1 also emphasises that food needs to be acquired reliably and regularly in sufficient amounts. It needs to be of high nutritional value and safe to eat, as well as being personally or culturally acceptable. In addition, individuals or communities need to know that their food intake is guaranteed and sustainable over time. Thus the term food security encompasses not only the nutritional requirements of people, but also food-related aspects of their psychosocial wellbeing.

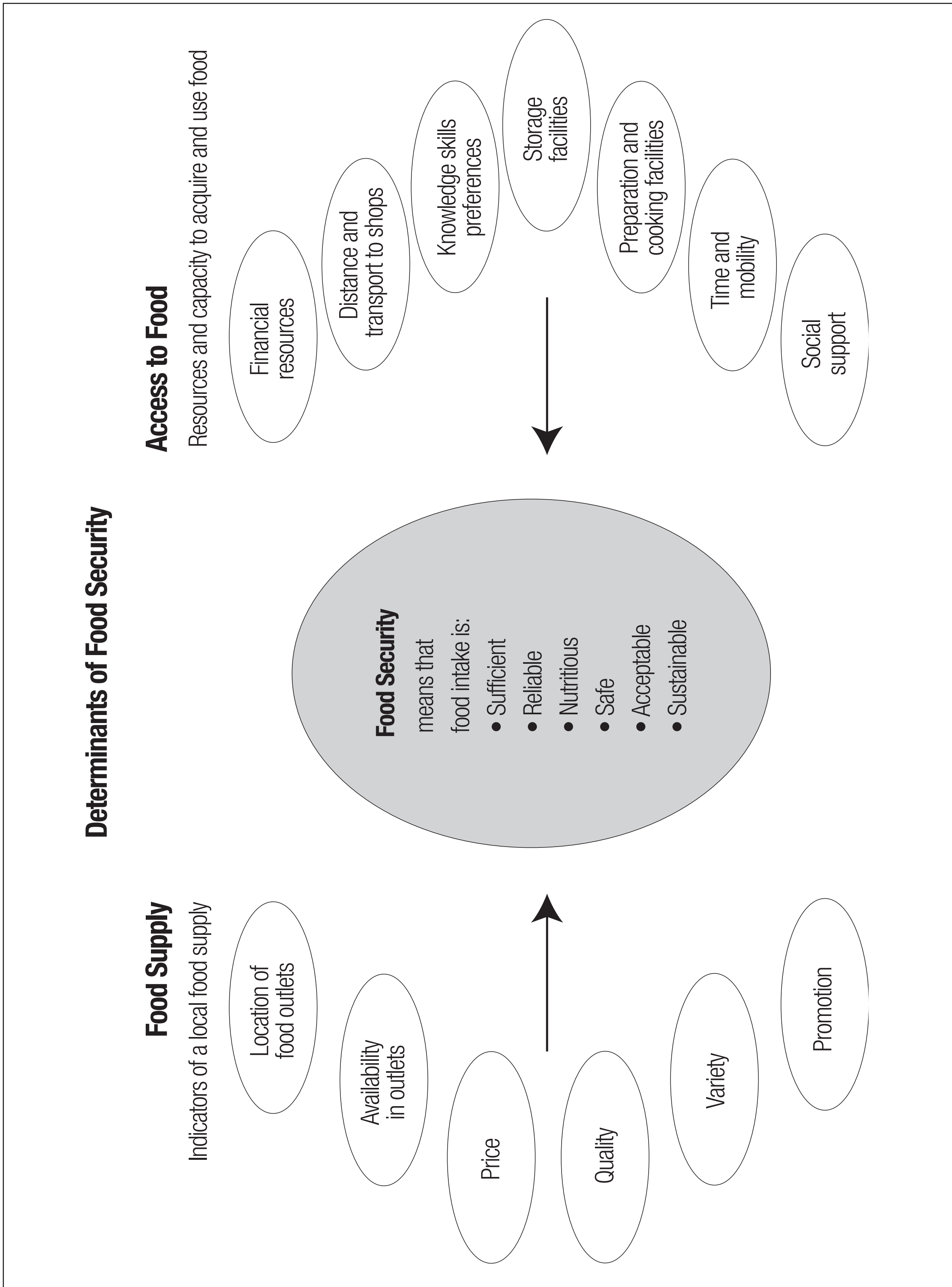
### *Food insecurity*

> *'Food insecurity exists whenever the availability of nutritionally adequate and safe foods or the ability to acquire acceptable foods in socially acceptable ways is limited or uncertain.' (Anderson, 1990)*

In most populations at any given time, a proportion of people experience degrees of food insecurity and hunger. Food insecurity may be experienced as not having sufficient amounts of food (resulting in hunger or a reliance on food relief, such as soup kitchens, food pantries and free food parcels, or breakfast programs); consuming a poor quality diet; and feelings of stress and anxiety either about acquiring food or diet quality *(Hamelin et al, 2002)*.

Inadequate nutrition and anxieties about food intake significantly contribute to poor physical and mental health, particularly among disadvantaged groups. Improving the food security of individuals, households or communities can thus reduce inequities in health and wellbeing. (See also monitoring and measuring food security).

***Figure 1. Determinants of Food Security***




*Rychetnik, Webb, Story and Katz (2003) Food Security Options Paper, NSW Centre for Public Health Nutrition (Adapted from a model by McComb, Webb and Marks 2000)*

## Describing determinants of food security

### Food supply

The term 'food supply' is used in this report to refer to those aspects of the supply of food in a community that affect the food security of individuals, households or an entire population. These aspects of the food supply include: the location of food outlets (retail and prepared foods) within a community; the availability of food within those stores; the price, quality and variety of the food that is available; and the way that different foods are identified and promoted (indicators described below). Although it may be important to examine and modify national or state food supplies when promoting food security, for particular disadvantaged groups it is often most relevant to consider their local food supply.

*Location of food outlets*

Food outlets include food retail stores as well as outlets of prepared food. The location of food outlets, particularly supermarkets, is a key feature of a local food supply. Food security among disadvantaged groups is dependent on the accessibility of food outlets that provide a diverse range of affordable foods. Local supermarkets that carry a full range of food and groceries at competitive prices can significantly contribute to household food security, while small convenience stores tend to be expensive and do not carry an adequate range of food. Thus supermarkets should be located in areas where people live or work or where they are easily reached by public transport.

*Availability in stores*

The regular availability of healthy and appropriate foods within local stores is another indicator of a good local food supply.

*Price*

The price of food is highly significant for people with low incomes. It is one of the key features in determining what they purchase and eat and has a significant impact on their disposable income for other needs. Food security is improved when fresh produce such as fruit and vegetables are affordable and when low-fat or high fibre products are competitively priced against their alternatives.

*Quality*

A local food supply needs to meet acceptable standards of quality and freshness. The quality of food will often determine its nutritional value, as well as its flavour and acceptability. The relationship between price and quality is also important. In some areas food security is hindered by the fact that good quality or fresh foods are locally available, but relatively expensive.

*Variety*

A nutritious diet is best achieved by eating a wide variety of foods that include fresh as well as processed products. A good food supply should include a range of choices that encourage the selection of a variety of fruit and vegetables; and staple foods such as bread, rice, pasta, cereals, and protein foods such as eggs, milk, meat and fish.

*Promotion*

The way food is promoted in a local area can significantly affect consumers' ability to identify and locate healthy foods, and their choice of foods. When assessing a local food supply it is useful to examine the way different foods are promoted, including the use of 'specials' and other pricing policies, in-store promotions and positioning of food, and advertising on billboards, at bus stops and in local media. Positioning of food outlets is a very effective promotion strategy (eg fast food outlets near or within school grounds).

The inadequacy of the food supply, and its affect on purchasing patterns among local residents, has been demonstrated in several urban and rural communities (eg Morland et al, 2002a & 2002b; Lee et al, 2002). It is worth noting however, that for any given setting the quality of the food supply and its role in determining diet quality should be carefully assessed rather than assumed (Cummins & Macintyre, 2002; Turrell, 1997).

### *Access to food*

Access to food is about being able to make use of a local food supply. Thus access refers to the resources and ability that communities, households and individuals have (or do not have) in order to acquire and consume a healthy diet. When examining whether people have adequate access to food it is important to consider the following: their ability to buy and transport food; the storage, preparation and cooking facilities at home; whether they have the knowledge and skills to make appropriate choices; and whether they have the time and mobility to shop for and prepare food.

Although access to food depends on an adequate food supply, some disadvantaged groups or individuals may not be able to acquire and consume a healthy diet even when local supplies appear plentiful. These include people who are very poor, homeless, or who are living with physical disabilities or mental illness.

*Financial resources*

Having enough money to buy food and select good quality food is a key measure of access to a healthy diet. When disposable income is limited, food is one of the first discretionary items to be pared. In some countries access to food is supported by the provision of other resources such as food coupons or meal vouchers, or the provision of financial assistance with housing or other basic requirements, so that more money is made available for purchasing food.

*Distance and transport to shops*

Distance from shops and transport to shops (especially supermarkets where foods tend to be cheaper than local stores) are key features of access to food. Many people who struggle to afford a healthy diet are reliant on often-inadequate public transport to reach the better quality and cheaper food stores. Such difficulties often affect people living in residential areas that are situated away from established shopping centres, as well as areas that are poorly serviced by public transport (eg very new or run-down housing estates). Obstacles related to distance and transport are also faced by rural and remote households, as well as rural and remote food suppliers (see below: food and nutrition system-food transport).

*Knowledge, skills and preferences*

It is important that people know how to make healthy choices when selecting food, particularly within a limited budget, and obtain the required skills to prepare healthy meals. Individual preferences need to be taken into account in relation to the food that is available or being recommended. Note however, that community preferences can often be driven by food advertising and the relative size of that food industry's promotional budget.

*Storage Facilities*

Adequate storage equipment, such as a fridge and freezer, are essential facilities to support healthy eating. It is also often cheaper to buy food in bulk and to make use of specials when they are available. This requires adequate storage room in the home, which is not available in many forms of cheap housing. A lack of secure storage facilities also affects those living in hostels or shelters. Housing must be designed so that storage areas are out of the reach of animals and pests.

*Preparation and cooking facilities*

Preparation and cooking facilities are also essential resources for making use of the local food supply. Inadequate cooking facilities are a significant barrier to healthy eating, particularly for those on a limited budget, as cooking at home is usually cheaper than buying ready prepared or take-away foods. The lack of an appropriate place to prepare meals is often a problem for those who are already the most disadvantaged in society, such as the homeless or those living in shelters or hostels.

*Time and mobility*

A shortage of time to go shopping or prepare meals at home can also limit access to a healthy diet, particularly in households where all adults are in full-time work. A lack of time can result in over-reliance on processed, ready-made or take-away food, which can result in a diet that is too high in fat and salt and too low in fibre and fresh fruit and vegetables. Poor physical mobility also restricts people's ability to shop for and prepare meals; an obstacle to food security that is often experienced by people with disabilities or the frail aged.

*Social supports*

Preparing and eating food is often viewed as a social activity; and social isolation can lead to loss of appetite, or a reluctance to cook and prepare larger meals. Families and friends are able to share the cost of food, as well as the time involved in shopping and cooking activities. 'At risk' individuals or households often rely on social support networks to assist them with food or money during periods of food insecurity. People with limited mobility and transport who live alone often depend on social supports and/or social services to ensure their food security. Social networks are also important in their positive contribution to the capacity of a community to identify local food security problems, and to collaborate on initiatives to solve those problems.

## Measuring and monitoring food security

Measuring and monitoring degrees of food security (or insecurity) in the community generates valuable information for planning policies and programs aimed at improving diet and nutrition or inequities in health. Measuring and monitoring food security is also important for evaluating the effectiveness of such interventions.

As with all forms of measurement, the quality of the instrument used (that is, the type of questions asked and the way in which they are asked) will determine the quality of information collected. The above descriptions of food security and its determinants reveal the range of variables that can be selected for questions to measure food security and risk of food insecurity. For example, questions can be posed to assess the following information: whether people live in circumstances that put them at risk of food insecurity; actual food intake; perceptions of whether food intake is sufficient; whether, and how often, people have experienced a shortage or a lack of food (without access to more); how often people have experienced hunger due to a shortage of food; whether, and how often, people have used food relief programs (and why); feelings of concern or anxiety about acquiring food; or whether current food intake is perceived to be acceptable, reliable or sustainable.

Perceptions of what are the most important aspects of food security are likely to vary in different political and policy contexts. Also, instruments/questions developed in one country or for a particular target group may not capture the most relevant information when transferred to other settings. It is essential that those who commission food security data collection are explicit about the type of information they require and its intended purpose. Measurement and monitoring may need to address national priorities or local problems, and questions should be developed and pilot tested with the intended purpose in mind.

In Australia, the *1995 National Nutrition Survey* included one question related to food security, which asked: 'In the last 12 months, were there any times that you ran out of food and couldn't afford to buy any more?' The question was also included in the *1999 NSW Healthy Older People's Survey*, and the *2001 NSW Child Health Survey.* The data collected are a useful indicator but are likely to underestimate the full extent of food security problems in the Australian population. This is because the question addresses only one aspect of food insecurity (running out of food as a result of running out of money); and because the most disadvantaged members of a population are often under-represented in general population surveys.

In the US, the Department of Agriculture, Economics Research Service (ERS) monitors food security and hunger using a continuum of indicators of food security, food insecurity without hunger, and food insecurity with hunger (moderate or severe). They have developed and validated a series of questions that identify not only the prevalence of food insecurity and hunger, but also why people are food insecure, and the consequences of their experience. The approaches used in the US to measure and monitor food security are described on the Department of Agriculture ERS and FNS (Food and Nutrition Service) websites (see references). The ERS has also recently published a *Community Food Security Assessment Toolkit*, which is available on-line (USDA/ERS, 2002).

In New Zealand, researchers have undertaken a process to develop local indicators of food security for national surveys. Five themes have been identified: food insecurity, food inadequacy, coping strategies, alternative sources of food, and cultural issues (*Marks et al, 2001; Quigley et al, 1997*). Although it is important to consider the tools developed in the US and New Zealand, there is a need in Australia to develop and validate a comprehensive measure of food security that will meet Australian needs and priorities.

## Points of intervention to improve food security

Figure 1 (the determinants of food security) assists policy makers and practitioners to identify points for potential intervention to improve food security. To affect real and sustainable change it may be essential to address both sides of the food security equation, that is, to modify the community food supply as well as people's access to food. When planning interventions it is important to take into account that the various determinants of food security interact.

The 'food and nutrition system' (described below) identifies points of intervention for improving the community food supply. This is illustrated in Figure 2.

Also described below are points of intervention to improve people's access to food-their resources and capacity to acquire and use food. Access to food is dependent on individual, household and community factors, many of which are associated with social and economic determinants of health. This is illustrated in Figure 3. (For more information about the social and economic determinants of health see Section Four of this report called 'Background information'.)

### *Food and nutrition system (points of intervention to improve food supply)*

The food and nutrition system describes the pathway between the production and the consumption of food, through to nutritional status and health (*Heywood & Lund-Adams, 1991*). The following sectors of the food and nutrition system are likely to be important in determining community food supply: food production; food processing; food transport; food stores; and outlets of prepared food (see Figure 2).

To improve the location, availability, price, quality, variety and promotion of food (indicators of a good food supply) nutrition policy makers and practitioners need to engage with the relevant sectors of the food and nutrition system. As indicated in the descriptions below, interventions aimed at improving aspects of the food supply that support the food security of communities, households and individuals usually rely on collaboration and partnership between sectors of government, non-government and industry.

*Food production*

Food production refers to farming and agriculture. An assessment of the potential impact on the food supply may include identifying the primary producers, how the food production market is controlled and regulated, the type and value of subsidies, what are the current incentives or taxes, and determining the flow of imports and exports. It is also useful to consider commodity grading systems and how the quality and nutritional characteristics of produce are determined or specified. Food production can influence factors such as the availability, price, quality and variety of food.

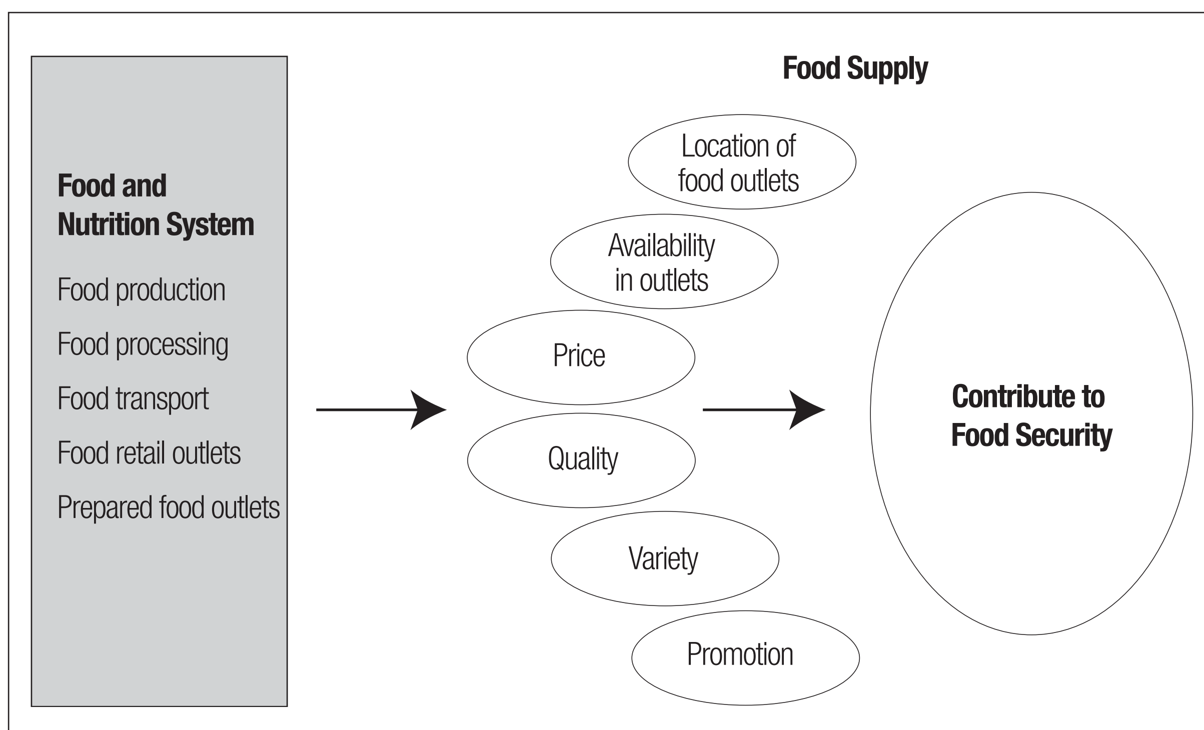
*Food processing*

Food processing is about turning primary produce into saleable food products. It includes milling, canning, freezing, packaging, fortification, or the formulation of manufactured food products. It may be useful to examine where the food processing is done and by whom (eg domestic versus foreign ownership); do companies have corporate food and nutrition policies; what are the national or state standards or regulations; what is the annual turnover; and whether there is potential for market growth, innovation, research and development. Food processing will have an effect on availability, price, quality, variety and promotion (and labelling) of food.

*Food transport*

Food transport refers to the distribution of unprocessed, processed and manufactured food and food products. The transport of processed and manufactured food for retail purposes (food stores and prepared food outlets) is likely to have the most direct impact on aspects of the local food supply, such as the availability, price, quality, and variety of food. The impact of transport could depend on the available transport systems and infrastructures, the regulation and ownership of companies, current costs and benefits, the degree of competition, and the scope for reducing costs or obtaining subsidies (such as for the transport of food to remote areas).

***Figure 2. Points of intervention to improve food supply***




*Rychetnick, Webb, Story and Katz (2002) Food Security Options Paper, NSW Centre for Public Health Nutrition.*

*Food retail outlets*

The location of food retail outlets and the type of food stores available are dependent on corporate business decisions and the viability of the local market. It is also influenced by urban planning, and whether private or public financing has been made available to support a local store. In-store management can also affect the availability, price, quality, variety and promotion of food. Although some changes may be negotiated locally, if the store is part of a large corporation it may be more relevant to engage with national or even international management.

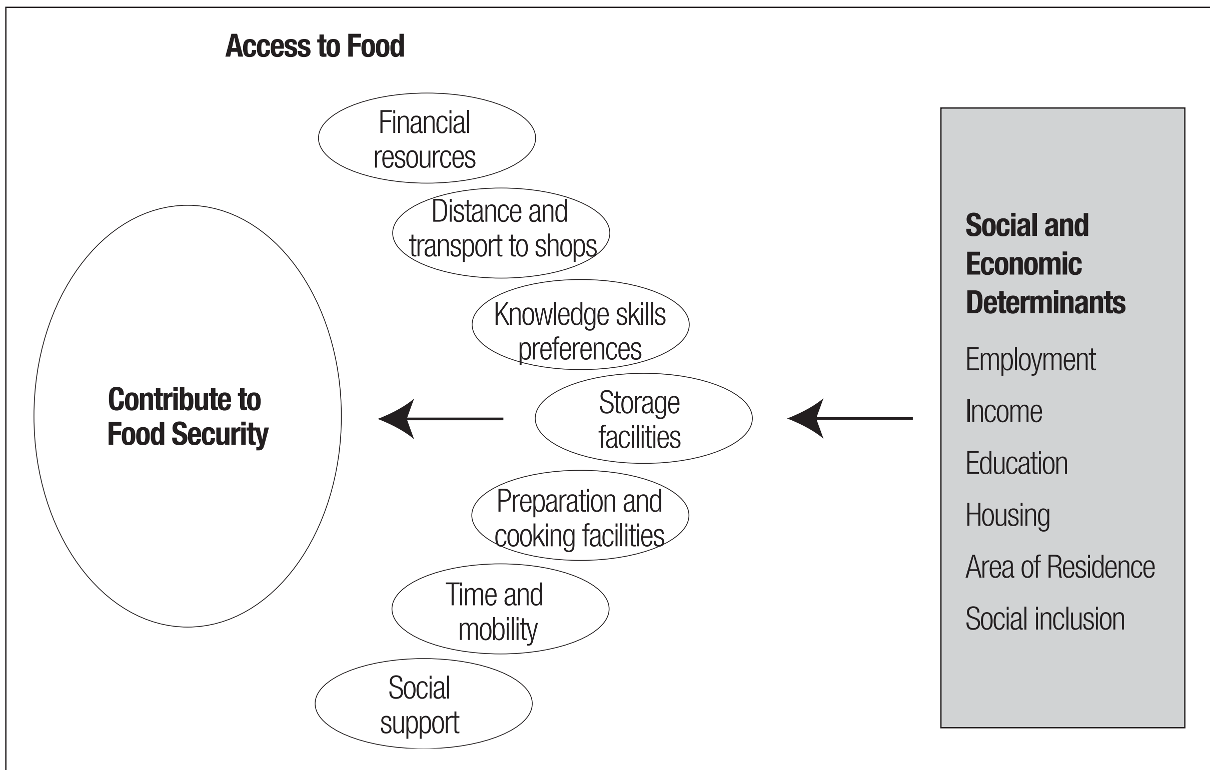
*Prepared food outlets*

Prepared food outlets include commercial organisations (retail of fast food and takeaway, à la carte cafés and restaurants), institutional food services (catering companies that distribute to canteens and workplace cafeterias) and community-based services (such as Meals on Wheels). Large corporations and franchises with a big budget may have a significant impact on the promotion and marketing of prepared food, both locally as well as nationally.

### *Social and economic determinants (points of intervention to address access to food)*

To improve people's access to food it is often necessary to directly address the resources and capacity that are required to obtain and prepare food (Figure 1) – that is, to enhance income/provide financial assistance, establish better transport to shops, and provide homes with adequate storage, preparation and cooking facilities. Appropriate knowledge and skills (such as how to identify healthy food choices and prepare acceptable foods) also need to be developed, but without appropriate resources, knowledge and skills have only a limited impact on food security. Sustainable interventions to improve access to food would also adopt a community development or 'capacity building' approach, to ensure that the target population was able to mobilise itself in the future and to continue to obtain or generate the resources required.

***Figure 3. Points of intervention to improve access to food***




*Rychetnik, Webb, Story and Katz (2003) Food Security Options Paper, NSW Centre for Public Health Nutrition.*

It is important to note that the resources and capacities identified as determining individual, household or community access to food in Figure 1 correlate with broader social and economic determinants of health; such as employment and level of income, education, housing and area of residence, and social networks. This is illustrated in Figure 3.

Interventions to improve access to food can be envisaged either as shorter-term or downstream interventions, or longer-term midstream and upstream interventions. Downstream interventions provide to individuals, households or communities the resources and capacity to acquire and prepare food in the form of services and direct assistance. Midstream interventions may focus on building collaborations and generating resources and skills so that individuals or communities are able to determine and implement their own interventions to improve food security. Upstream interventions aimed at improving the social and economic status of disadvantaged groups through income distribution and other poverty alleviation measures will also improve people's capacity to acquire and prepare a healthy diet. Upstream interventions can thus be envisaged as improving food security in the longer term, as well as preventing future food insecurity. (See Section Four – background reading for descriptions of social and economic determinants of health, and of downstream, midstream and upstream interventions).

Interventions aimed at the broader social and economic determinants of health, as well as interventions aimed directly at the resources and capacity that people need to reliably acquire and prepare food, tend to rely on collaboration; within government and between government and non-government sectors. Food coalitions or councils have emerged as a promising larger-scale response to the need for inter-sectoral action. Food policy coalitions are described as key intervention strategies in Section Three of this report.

### *Intervention strategies*

The definitions and models of food security presented in this paper can assist communication about food security between policy makers, practitioners and researchers from diverse backgrounds. It is hoped that improved communication will facilitate collaboration in identifying points for potential intervention and implementing/evaluating joint initiatives to improve food security.

In addition to identifying points of intervention to improve food security, it is useful to consider the range of intervention strategies to which practitioners from diverse backgrounds may contribute. Strategies that are often adopted in community nutrition, public health, and welfare settings, and which can also address food security, include the following: community coalitions; research, monitoring and evaluation; professional and public advocacy; subsidy and incentive schemes; community development and grant schemes; and harnessing applied technology. Such intervention strategies have been included in the intervention options presented in Section Three of this paper; and in the intervention examples presented in Section Five.

When planning interventions it is also important to consider that the determinants of food security vary between populations; and that certain subgroups of the community have specific problems and needs. It is thus essential that generic initiatives aimed at improving community food security are supplemented with targeted services and programs to address the needs of particular groups. To address local or group-specific needs and priorities, practitioners and policy makers must understand the relevant local or group-specific determinants of food security (eg *Wolfe at al, 1996; Wood et al 2000*).

For example, older people, people with disabilities, or those with mental disorders and/or drug and alcohol problems may experience food insecurity that is primarily the result of their individual, and often chronic, physical or mental health problems. As a result, they are more likely to have ongoing need for direct assistance in the form of food delivery services or food relief/free meal programs than those members of the community who face food insecurity as a result of socioeconomic disadvantage. Interventions in the form of services and direct food assistance programs have been included in the options presented in SectionsThree and Five.

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# 3 Intervention options to improve food security

## *Introduction*

This section describes a wide range of options for policy and practice interventions to improve food security. The aim is to describe and illustrate the breadth and scope of potential and existing initiatives. (One-page summaries of interventions that have been conducted in Australia and overseas are presented in Section Five, as examples of the intervention options described below.)

Few of the interventions described have been evaluated in a way that would demonstrate their effectiveness at improving food security. Also, at the time of writing, there were no available evidence-based reviews of the limited evaluation research that does exist on each type of intervention. It is thus not possible to make evidence-based recommendations for selecting the most effective policy and practice options from among the interventions presented below.

The selection of interventions should be informed by an assessment of local food security needs and priorities. Decision makers will need answers to the following three questions:

1. What is the prevalence of food insecurity (among at-risk population groups)?
2. In what areas is the food supply inadequate, and why?
3. Who has problems with acquiring food, and why?

The first question is much easier to answer if data on food insecurity are collected in national and state surveys. Thus national and local planning is greatly assisted by adequate research and monitoring of food insecurity. The answers to questions two and three need to be supplemented with examination of those aspects of the food supply that contribute to local food insecurity, and negotiation with local communities about potential solutions to improve food security. Planned interventions should also demonstrate clear program logic and the adoption of good practice principles.*

The selection of interventions will also depend on the workforce/organisational capacity to initiate or collaborate in an intervention, the available resources, and the ability to engage the relevant partners (within and external to the health sector). Given the nature of food security as a developing policy and practice agenda, those who seek to implement particular intervention options will usually need to actively develop the required capacity, advocate for the necessary resources, and negotiate the relevant partnerships and collaborations.

In addition, policy and practice decision-makers are encouraged to consider the following:

- Commission a review of the available evidence on those interventions and strategies that appear relevant to the needs, priorities and circumstances of particular areas.
- Ensure that those interventions that are implemented to improve food security are rigorously evaluated, and the findings are published to contribute to the evidence.

### *Format of intervention options*

The intervention options presented below have been aligned with the conceptual models of food security presented in Section Two. Thus the intervention options have been categorised as follows:

- Generic intervention strategies to improve food security (that relate to food supply and access to food).
- Interventions to improve food supply (by modifying the food and nutrition system).
- Interventions to improve access to food (by improving people's resources and skills to acquire and use food).

An overview of all the intervention options described in this section is presented in Table 1 overleaf.

*NOTE: The NSW Health Promotion Directors' Forum has commissioned a project to develop tools to assist practitioners in planning and implementing projects aimed at reducing inequities in health. Contact Jo Mitchell for further information: MitchJ@sesahs.nsw.gov.au.*

***Table 1. Overview of intervention options***

| | |
|---|---|
| **1** | **Generic Intervention Strategies** |
| 1.1 | Food policy coalitions or councils. |
| 1.2 | Research monitoring and evaluation. |
| 1.3 | Advocacy for food security. |
| 1.4 | Government subsidies and incentive schemes. |
| 1.5 | Community development and grant schemes. |
| 1.6 | Harnessing applied technology. |
| **2** | **Interventions to improve food supply** |
| 2.1 | Food system education. |
| 2.2 | Food production<br>• growing local fruit and vegetables<br>– home gardens<br>– community allotments<br>– community gardens<br>– school gardens<br>– edible landscape<br>• supporting local farming and agriculture<br>• designing foods (primary produce design). |
| 2.3 | Food processing<br>• reformulate food products<br>• modify portions and packaging. |
| 2.4 | Food transport. |
| 2.5 | Food retail outlets<br>• location of supermarkets<br>• in-store price, availability and promotion<br>• improving convenience stores<br>• order from home and home delivery<br>• rural and remote store policies. |
| 2.6 | Prepared food outlets<br>• institutional food services<br>• catering companies<br>• clubs, restaurants and takeaways. |
| 2.7 | Food aid and subsidised meals<br>• soup kitchens<br>• emergency food parcels<br>• food banks<br>• subsidised meals<br>• school meals. |
| **3** | **Interventions to improve access to food** |
| 3.1 | Integrated services and referral systems. |
| 3.2 | Income support. |
| 3.3 | Transport to food suppliers. |
| 3.4 | Appropriate storage and kitchen facilities. |
| 3.5 | Health education: food and nutrition and life skills . |

## *Generic intervention strategies*

The intervention strategies included in this section are as follows:

- Food policy coalitions or councils
- Research monitoring and evaluation
- Advocacy on food security agendas
- Government subsidies and incentive schemes
- Community development and grant schemes
- Harnessing applied technology.

### *Food policy coalitions or councils*

A food policy coalition (or council) is an inter-sectoral working group that is established to bring about improvements to the local food supply to support food security. Food policy coalitions vary in their scope (eg they may cover a local government area or state-wide) as well as their activities, but overall they aim to generate the capacity to bring about change. Most food policy coalitions will undertake some or all of the following activities:

- examine community food security and assess the local food supply
- identify, report and publicise problems with the food supply and advocate for change
- work with key stakeholders to develop/reform policies that satisfy the interests of all those affected
- oversee the implementation of the food policies developed or reformed
- evaluate the policies and actions to assess their impact on the food supply
- seek funding and resources to support activities of the food coalition and to sustain improvements to the food supply
- act as a catalyst for food security projects led by other groups.

*NOTE: Many of the intervention options presented are adaptable in terms of scale and scope. For example, a food policy coalition or council can be a national initiative, or established within one local government area. We thus encourage users of this document to consider adapting to the needs of their context the scale and scope of the intervention options presented.*

Food policy coalitions tend to be initiated by organisations or groups with an interest in health, welfare, or environmental objectives, but could be led by any group with a community focus. The distinguishing features of such coalitions are their strong focus on developing and implementing policies, and their diverse, broadly representative membership. Food coalition members often include the following types of people: local council elected officials; managers of directorates (such as urban planning and community services); government representatives; managers of local grocery retail chains; the chamber of commerce; fruit and vegetable grower organisations; the health department; a university; community organisations concerned with welfare and food security; opinion leaders and members of the local community.

*Funding*

The funding for food policy coalitions comes from a variety of sources, including special foundations, welfare, community grant schemes, and non-government organisations. Food policy coalitions tend to be more successful however, when they receive on-going funding (rather than one-off grants) from mainstream sources that are widely recognised and perceived as credible (eg local council, department of health and agriculture).

*Food policy coalitions or councils compared to smaller scale projects*

Food policy coalitions are potentially one of the most powerful interventions to improve a local food supply. This is primarily due to their potential to engage influential stakeholders and to provide a forum to negotiate change to many aspects of the local food and nutrition system. However, food policy coalitions can be challenging to establish and maintain, and should be undertaken as a long-term initiative (at least five years, but preferably 10-20 years). The sustainability of food policy coalitions or councils depends on rigorous maintenance of the working group; attention to democratic processes-particularly when developing policy; accommodating the political nature of inter-sectoral action; and finding ways to overcome political, organisational and structural barriers to change.

If the long-term funding, skill, and commitment that are required for establishing and maintaining a food policy coalition or council are not available at the outset, it may be more appropriate to initiate individual, smaller-scale 'food system' projects that target a particular aspect(s) of the local food supply. Such projects are described in the next sections.

*Examples included in Section Five (pages 57-61)*

- Canada's Action Plan for Food Security
- Toronto Food Policy Council
- South Sydney City Food Policy
- The Penrith Food Project
- The Hartford Food System

### *Research, monitoring, and evaluation*

Research, monitoring and evaluation are activities designed to collect empirical data (evidence) that are essential for understanding food security/insecurity and to advocate for change. Descriptive data can identify problems and potential solutions to those problems, and evaluation data assist those making decisions about policy and practice. Advocates of projects to address food security need data to influence policy, obtain funding, and to encourage participation from potential collaborators.

*Research and monitoring*

Research and monitoring activities can focus on the prevalence and distribution of food security/insecurity in the population or examine the determinants of food security (ie food supply or access to food). The activities may include:

- measuring the prevalence of the various dimensions of food insecurity (that is, quality of food, shortage of food, experiences of hunger, anxiety about food intake, and risk factors for food insecurity among special groups)
- monitoring surrogate measures of food insecurity, such as the uptake of food aid programs
- examining the relationship between the food system, access to food, food security and nutritional status
- mapping the location of supermarkets and other food outlets in relation to residential areas
- documenting the price, availability, quality and promotion of foods in community food retail outlets.

The products of research and monitoring vary, as do the target audiences for these products. For example, research done as part of a university-based project is often published in a peer reviewed journal for review by future researchers and practitioners. Ideally, there is also potential to use such research findings in local decisions about policy and practice. Research may also be commissioned specifically for the purpose of local advocacy, which may be published in a targeted report, a local newsletter, or in the local media. Research and monitoring can also be commissioned by state and national governments and published in widely distributed reports. Some of the most useful research and monitoring data on food security are those that are routinely collected and thus reveal trends over time.

*Evaluation*

There is a shortage of rigorous evaluation literature on the effectiveness of food and nutrition policies and interventions to improve food security. More emphasis is needed on funding and implementing evaluations of the benefits, harms and cost-effectiveness of interventions to improve food security. This will assist advocates of food security to meet health sector requirements for accountability.

The conceptual framework of food security presented in Figure 1 can be used for planning policy and practice, as well as setting objectives against which interventions could be evaluated. For example, a food policy coalition may decide to improve two aspects of food supply (such as, for example, the variety and price of foods sold in a remote area), and two aspects of access to food (such as, for example, transport to food outlets and the kitchen facilities of local hostels for homeless families). These outcomes can be used to evaluate whether the food policy coalition has achieved its objectives.

The challenge for evaluators of food security projects is to ensure that their aims and methods are agreeable to the diverse group of intervention stakeholders, and that their findings are useful for future decision making about policy and practice to improve food security.

*Examples included in Section Five: (pages 62-69)*

- *NSW Child Health Survey 2001*
- *National Health Survey 2001* (and *National Nutrition Survey 2001 and 1995*)
- *The Healthy Food Access Basket Survey* (1998 and 2000)
- *NSW Healthy Older People's Health Survey 1999*
- *NZ Food: NZ People, 1997 National Nutrition Survey*
- *Online Community Food Security Assessment Toolkit*
- *The Queensland Food System: Description of Distribution, Marketing and Access*
- *Food and Nutrition in NSW*; a catalogue of data.

### *Advocacy for food security*

Advocacy and lobbying are attempts to get an issue on the public agenda and to reframe the way decision makers (and their constituents) think about an issue in order to modify policy and practice decisions. In public health, advocacy and lobbying are often used to overcome major structural (as opposed to individual or behavioural) barriers to public health goals (see Chapman and Lupton page 6). Single activities, such as convening a conference or seminar, can be part of an advocacy process, but effective advocacy is usually a strategic process that is followed through until the desired change to policy and practice has been achieved.

Food security advocacy usually involves partnerships with consumers, consumer organisations and special interest groups who represent those who are food insecure. Sometimes it requires speaking on behalf of those who feel powerless to change their environment, and getting food security on to the agenda of those who can make a difference. This may require bringing attention to food security as an important concern and presenting a rationale for why it should be addressed; identifying where and for whom food insecurity occurs; revealing the structural and social determinants of food insecurity; identifying policy and program interventions that can improve food security; and advocating for funding and other resources to address food insecurity.

*Professional advocacy*

Advocates for food security include social and welfare policy groups, welfare organisations, consumer organisations, nutritionists and other public health practitioners or policy makers. Health and welfare professionals often work by influencing and re-orienting the policies and programs of their own organisations. In some organisations advocacy for food security may need to begin by convincing professional peers or

managers that food security is an important issue and that it is amenable to intervention. This report could be seen as a tool for this kind of 'internal' advocacy.

Public health practitioners also initiate collaborative strategies with external groups. They may also assist community organisations to advocate and lobby more effectively to governments, bureaucracies, and industry. For example, working with social and welfare policy research groups can generate the kind of evidence required to stimulate governments to review and enhance welfare benefits, or tax policies that place undue hardship on lower income groups. Health and welfare professionals often have access to research and monitoring data that can be used to frame and support an argument. For example, the exemption of basic foods from the GST was achieved through concerted public and media advocacy, as well as lobbying behind the scenes by health, welfare and community groups.

Some professions are well trained in advocacy skills, such as those graduating from political science, sociology, or community psychology. For many scientists or practitioners however, policy or political advocacy is often a skill that they learn 'as they go' after they enter the workforce. The type of advocacy needed depends on the target audience, the desired action (and who would benefit from this action) and scale of the change required. For example, changing TV advertising to children will require lobbying on a national and public scale, as well as behind-the-scenes negotiations. Advocacy can also be adversarial or collaborative. Boycotts are an example of adversarial advocacy. Conversely, getting something on to the agenda of the local chamber of commerce may be a first step in successful inter-sectoral action, such as working with store managers to introduce products desired by local consumers.

*Consumer advocacy*

Health and welfare professionals also represent consumers directly by advocating on their behalf to ensure that organisations meet their responsibilities and address the rights of consumers. Consumer advocacy may be undertaken by community workers who often advocate for the rights of individuals and small groups at a local level. They may assist people with low levels of education or poor communication skills to identify and assert their rights or undertake to resolve the issues on their behalf. Consumer advocacy also takes the form of a consumer organisation, such as the Australian Consumers Association, whose mission is to represent the rights of all consumers.

For example, retail consumer advocacy would assist those consumers who are unable to effectively assert their rights to return spoiled foods and ensure that their future purchases of food are safe and of reasonable quality. An organisation may also aim to ensure that consumers are able to buy basic food items at reasonable prices, particularly if there is no market competition. Also, some stores in rural and remote locations act as 'banks' for consumers on pensions and other welfare benefits by extending credit and cashing welfare checks. Another example of consumer advocacy would be to ensure that this practice is not subject to misuse and doesn't cause harm to the often powerless and already disadvantaged customers.

*Examples included in Section Five (Page 70-73)*

- Sustain
- Child Poverty Action Group (School Meals Bill)
- Hidden Hunger
- Public Issues Education

### *Government subsidies and incentive schemes*

Subsidies and incentive schemes are used by governments to influence or support particular activities within the private or community sector. Apart from direct regulation, financial subsidies and tax or other incentives are often the most effective ways of influencing the production, processing, transport and retail sale of food. Subsidies and incentive schemes are likely to improve food security in situations where the major barriers to a healthy food supply are the high costs associated with a particular activity (eg the refrigerated transport of perishable goods to rural and remote areas).

Incentive schemes and subsidies work when the interests of government and those of other key stakeholders are satisfied. For example, subsidising food transport to rural and remote areas can meet the interests of government and their constituents if it helps to retain a viable rural

sector; creates employment opportunities; and promotes health and wellbeing by meeting food and nutrition needs. Clearly such subsidies must support, rather than compete with, local transport and retail industries.

Even short-term subsidies or incentives can be effective in promoting food security if they support activities that have the potential to become profitable and self-sustaining in the long term. One example of this is subsidising a supermarket in a new and growing residential area until the population is large enough to make it commercially viable.

When barriers to food security are multi-factorial it can be challenging to ensure that subsidies and incentives have the desired effect. Subsidies given to producers, suppliers and transporters of food must be passed on to consumers to have a direct impact on food security (rather than merely supporting these industries). Sometimes governments can have a more obvious and direct impact on food security by subsidising consumers directly, as with the GST exemption on staple foods. Governments may also provide direct income support (see below-interventions to improve access to food).

*Example included in Section Five*

- Western Australian Nutrition Awards (Page 74)

### *Community development and grant schemes*

Those who experience food insecurity often represent some of the least influential people in society-those with the lowest social and economic status, poorest levels of education, poorest housing, or those with problems arising from drug and alcohol dependence or mental illness. An underlying motivation for community development is not only to generate sustainable solutions to health and welfare problems, but also for the participants in those solutions to develop generic and transferable life-coping skills. Thus a community development approach would aim to increase the competence of the community to articulate and address their concerns, and food security may be only one of several priority issues that end up being addressed.

The term ‘community organisation’ is sometimes used to refer to a more directed and targeted approach to the process of community development. Community organisation is more likely to initiate and support community-based projects that address health and welfare issues (such as food security) that are identified as priorities from local morbidity and mortality data and from targeted assessments of need.

In many communities there are established agencies, organisations and groups that exist primarily to deal with the problems and concerns of the poor and disadvantaged. It may be effective and efficient to offer food security grant schemes to some of these organisations so that they can monitor and address food security among their existing constituents. Depending on the objectives of such initiatives, they would usually benefit from input and support from nutritionists and/or researchers or evaluators from the health or university sector.

*Example included in Section Five*

- Community Food Projects Competitive Grants Program (page 75)

### *Harnessing applied technology*

New technologies are continually developed for the production, processing, storage, and distribution of the food supply. Some of these technologies are used to expand the range and types of products available, others to meet consumer demand for quality, and many to reduce production costs. Technology can also be used to improve the availability, nutritional quality, storage and distribution of foods for consumption. Applying technology to produce and distribute higher quality basic foods at little extra cost, benefits lower income consumers. Note that the technologies do not have to be ‘high tech’ to be useful.

*Production*

Technology now enables foods to be ‘designed’ for the production of those more consistent with nutritional objectives. For example, feeding and breeding practices have reduced the fat in milk produced by some breeds of dairy cattle, and the muscle meat fat content in beef cattle. Plant breeding is also used to produce crops with higher levels of micronutrients, for example, cereal grains with higher levels of protein, and wheat grains with higher zinc levels in the edible grain. Better assays of the nutrient content of world foods has also identified a number of native breeds which are rich in micronutrients, such as bananas high in vitamin A in the Pacific Islands. These breeds can be imported and cultivated for communities

where low intakes of particular nutrients are common. Subsidies for the agricultural products needed to produce quality basic foods, and continued government investment in research and development are needed to make use of technology for solving food security problems.

*Processing*

New food processing techniques, including preservation methods, enable food products to be produced with better nutritional characteristics as well as taste and appeal. Examples include production of bread with preservatives other than salt, fortification of staple foods with folate, production of lower fat ice cream, and so forth. Minimal food processing techniques can be used to extend the shelf life of products while retaining their nutritional quality. An example is controlled atmosphere storage for fruits and vegetables, which can be used as an alternative to canning, freezing or drying.

*Packaging*

New methods of food packaging can be used to preserve the quality of foods in various quantities and in various environments, to make a wider range of foods available to consumers. Examples include vacuum and modified atmosphere packaging for perishables such as meats, vegetables and fruit, which reduce oxygen and/or by-products of ripening, to extend shelf life and reduce spoilage. Moisture resistant packaging has been developed to preserve breakfast cereal products in tropical climates.

*Food retail outlets*

Technology is being used to assist consumers to shop from home. Internet shopping, phone and fax orders make it possible for those who are homebound, or who have limited mobility (and their carers) to acquire basic foods on a regular basis. Underwriting the cost of these services for the few by food retailers, or government subsidies to extend and make this available to everyone who needs it, is the challenge for food security.

*Prepared food outlets*

Computerised menu planning with instant nutrient analyses is now possible for institutional food services. It has the ability to improve the nutritional quality of foods available, and enable tailoring for special needs. For example, the use of computerised menu planning in large NSW hospitals is now commonplace, and has resulted in many changes and improvements to menus. The use of such packages could be promoted and incorporated into the training for staff in child care centres, school canteens, and long-stay residential institutions.

*Health education*

Computer technology has also been applied to nutrition education in the form of ‘virtual shopping tours’. Packages have been developed to allow consumers from remote locations, in groups or as individuals, to walk supermarket aisles, pick up products, read labels, do comparative pricing, and get feedback about lower cost, nutritionally superior alternatives as they move around the aisles. This has been used to target education for low income groups through the US Department of Agriculture Extension Program, which serves low income households and communities.

*Research and monitoring*

Computer scanning data, now collected through most supermarkets, can be used to monitor sales and unit prices of most types of food in most geographic locations. The use of this technology requires further development-for example, to clarify the objectives and to identify the most useful type of data for monitoring the determinants of food security (*Watson et al, 1996*).

Computer scanning data can also be used to evaluate interventions. For example, an evaluation of the effects of adding health claims to the packaging of breakfast cereals, used (checkout) brand scan data to monitor sales of cereals fortified with folate (*Watson and Watson, 1998*).

## Interventions to improve food supply

The interventions described below aim to improve aspects of a local food supply to support food security. Thus they aim to address issues related to the location of food outlets, improve the availability of healthy food within those outlets, reduce the price of food staples, increase the quality and variety of the food available, and improve the way food is promoted. The interventions have been grouped according to the component of the food and nutrition system that they target, that is:

- education about the food and nutrition system
- food production
- food processing
- food transport
- food retail outlets
- prepared food outlets
- food aid and subsidised meals.

Although interventions to improve food supply can often benefit the diet and nutrition of whole communities, we have attempted to emphasise those interventions that can be targeted to benefit the food security of disadvantaged groups in particular.

### *Education about the food and nutrition system*

Advocates, policy makers, and practitioners who seek to improve food security need to understand how agricultural, environmental, economic, political and commercial activities impact on diet and nutrition, particularly for poor and disadvantaged groups. This requires knowledge of the food and nutrition system, and a willingness to engage with that system to negotiate change. Education about the food and nutrition system can be seen as an early step towards helping professionals and consumers to achieve this aim.

Food system education can be incorporated into tertiary education programs for food technologists, nutritionists and public health professionals, or provided within a framework of work-based training and development. For example, dietitians/nutritionists at the forefront of programs to address food security may require additional training on the legislative, commercial and technological aspects of the food and nutrition system. Additional training in negotiation, conflict resolution and how to influence the public policy making process can also be useful. Food system education for professionals who work in the food industries can raise awareness of:

1. Food security as a consumer need.
2. Opportunities to participate in food-system responses to meet these needs.

Food system education can also be provided to members of the public as part of a community development program to assist consumers to lobby for improvements to their local food supply. Information about the food system and its impact on the food supply can also be introduced into school curricula.

*Issues to be addressed in education*

- Relationships between consumer health, food security, and food supply.
- Aspects of the food system that are consistent/ inconsistent with food security objectives.
- Identifying components of the food and nutrition system and their interactions.
- Stakeholders and lines of influence in the food and nutrition system.
- Working with food industry and other sectors of government to identify and address compatible objectives (that is, combining nutrition, food technology and commercial interests).
- How food and nutrition policies and food regulations are developed and implemented.

*Examples included in Section Five* (pages 76-78)

- From Land to Landfill: a Systems Perspective
- Penrith District's Open Farm Day
- Food systems professional education (FSPE) of W.K. Kellogg Foundation

### *Food production*

Policies and programs targeting food production can affect the local food supply, particularly the availability, variety, quality and price of food. Options include establishing or supporting local food production in disadvantaged areas with the intention of enhancing the local food supply. Local food production initiatives may also create new jobs, new markets, opportunities for bartering skills, and provide a focus for new social networks.

Interventions with health and welfare objectives may even target food production on a larger scale, with potential to affect a state-wide or national food supply (except products intended for export). To be viable, such initiatives must also meet commercial objectives (eg whether the market can support leaner and thus healthier meats). Large scale improvements to food production can contribute to food security if cost savings are passed on all the way along the food system through retailers to consumers, and if quality improvements occur in those foods that are regularly consumed by low income groups.

Described below are initiatives that target food production under the categories of:

- Growing local fruit and vegetables
- Supporting local farming and agriculture
- Designing food

*Growing local fruit and vegetables*

Promoting and supporting current interest in growing fruit and vegetables is one means of supplementing the food supply of local households. There are several versions of this type of initiative, including home gardens, community allotments, community gardens, school gardens and edible landscapes.

Home gardens – A household's food supply can be enhanced by home grown fruit and vegetables. An ABS survey showed that more than 25% of households in NSW produce fruit and vegetables in home gardens (*Stickney et al, 1994*). The most common produce grown in home gardens are citrus fruits, tomatoes, and leafy greens, which are all nutritionally dense products. At the time of this survey, the majority of home grown produce came from rural households, but there is potential to expand home growing of fruit and vegetables to urban areas.

Community allotments – Community allotments are popular in the UK, where councils lease (at very cheap rates) small pieces of common ground to local residents to grow their own fruit and vegetables. Successful gardeners can significantly supplement their household's diet and often generate enough produce to share with others. Community allotments are usually within walking distance of residential areas, but this form of gardening does require dedicated blocks of time to attend the allotment on a regular basis. Obstacles include pest invasion, vandalism or theft, and some people do not have the gardening knowledge, experience, time or money to support an allotment on their own. For these groups a shared community garden can be a preferred option.

Community gardens – Community gardens are often promoted as a solution to problems of food security in deprived areas. Time, money, knowledge and skills are shared among local residents, with the aim of enhancing the food supply of contributing households. Such gardens can generate enough produce to provide modest supplements to household requirements of fruit, vegetables and even eggs; and participants often gain gardening skills, organisational skills and social networks. A key difficulty with community gardens is that they are quite time consuming to organise and manage. Unless an 'allotment' system is used to share responsibilities, the sustainability of a community garden is often reliant on one or two individuals having the capacity to coordinate the activities of other contributors.

School gardens – School gardens are often easier to coordinate and organise than a community garden as they have the organisational backup of the school and access to a daily gardening 'workforce' among the school pupils and staff. A significant benefit of a school garden is that it stimulates interest in trying new fruits and vegetables (with the hope of increasing fruit and vegetable consumption in the longer term) and teaches children about gardening, composting, and so on. It also provides teachers with material for other syllabus topics, including science and biology, the environment, hunger and food security, food production and the food system, agriculture, and more. As the produce of school gardens is usually shared among a very large number of pupils, school gardens are more likely to contribute to education and skill development than to the food supply of local households.

Edible landscapes – Councils often plant nature strips and parks with ornamental plants. In some areas councils replace these plants with fruit trees and vines to contribute to neighbourhood food supplies. They also aim to demonstrate the environmentally sound practice of watering only those plants that yield edible produce, while ornamental plants are restricted to Australian natives that rely on rainwater alone.

Supporting local farming and agriculture – Initiatives to support local farming and agriculture aim to retain farmland, farm related industries, and the capacity to grow local food in communities on the urban fringe. Local farming and agriculture can generate fresh and often reduced price horticultural produce for direct purchase from the producer. Retaining farming activities also preserves local jobs and thus helps to retain skills, people, and the rural sociology of an area that is often highly valued by the local community as well as potential visitors.

Initiatives may include subsidies or schemes to make farming economically viable and to assist families to retain farms rather than selling their land, regulations that allow farms and residential areas to coexist (such as zoning, land strips to prevent residents being disturbed by smells, noise, etc.), and financial/tax incentives to grow food for local consumption.

Community-supported agriculture is a scheme that links farmers to their community through the direct sale of farm shares. The sale of shares supports farming and acts as an incentive for consumers to purchase regular supplies of seasonal, competitively priced fruit and vegetables. Community-supported agriculture can also assist low income groups through schemes that offer subsidised shares and subsidised produce. Direct sales and roadside stalls in populated areas or along transport routes can also provide farmers with a market without the costs of packing, shipping and so on.

*Designing foods (primary produce design)*

'Designing foods' refers to modifying the composition (quality) of primary produce, for example breeding and feeding herds to reduce the fat content of meat and milk. Two of the main sources of fat in the diets of Australians are meat and dairy products, and lower fat versions of these products usually cost more than high fat versions. If the total available meat supply is designed to be leaner, there is potential for not only less fat to enter the food supply, but to also reduce the fat differential between cheaper and more expensive cuts of meat. Thus primary produce design affects the quality of food and can also affect the relative price of healthier food.

Interventions should result in nutritionally superior basic foods, although they will also need to meet the commercial and marketing needs of food producers. It is possible to provide incentives to farmers to produce leaner animals and lower fat dairy herds and there is great potential in examining ways to better integrate nutrition policy with agricultural policy at national, state and local levels.

*Examples included in Section Five (pages 79-84)*

- Farmers Markets and the Farmers Market Program
- Regional Infrastructure for Sustaining Agriculture & Pennsylvania Association for Sustainable Agriculture
- Holcomb Farm Community Supported Agriculture
- The Edible School Yard
- Direct Farm Marketing and Tourism Handbook
- American Farmland Trust

### ***Food processing***

Modifications to food processing can improve the quality and variety of foods available. For example, modifications to food processing can create healthier products, while packaging food in smaller and cheaper portions can avoid waste for those living alone, and makes them affordable to those on very limited incomes. The availability of smaller portions of foods and beverages also assists susceptible people to prevent weight gain, while improvements to food labelling can aid people to select a healthy diet.

Policies and programs to improve food processing should target food staples that are eaten on a regular basis by low income groups (bread, milk, cereals, dairy products, tinned foods, frozen foods, fruit and vegetables). Described below are initiatives that aim to:

- Reformulate food products
- Modify portions and packaging

*Reformulate food products*

Reformulating food products refers to improving the nutritional quality of low cost basic foods. New product development requires collaboration between nutrition/health representatives and manufacturers to encourage initiatives, which involve changes to food processing methods. Initiatives aimed at reformulating basic food products in line with nutritional objectives also come from within the food processing industry, particularly from large companies, which have the resources to employ nutrition advisors and experiment with new products. The aim may be to create products, which are lower in fat, salt, and sugar, or to fortify products with micronutrients.

Fortification is a method of restoring micronutrients that are usually lost during processing (such as vitamin C in fruit juice). Fortification can also be used to enhance a 'carrier' food with those micronutrients that are commonly found to be deficient in people's diets. Carrier foods do not naturally contain high levels of the added micronutrient but are staple products that are regularly consumed by those at risk of micronutrient deficiencies; for example, pregnant women, older people living alone, people dependent on alcohol. Examples of enhancement include adding folate to breakfast cereal and bread, iodine to salt, thiamine to flour, iron to UHT milk, and vitamin C to cordial and fruit drinks. All product reformulation requires a period of product research and development.

Some research and development initiatives have resulted in 'healthy' prepared food alternatives becoming more available to food retail outlets and food services. In particular, foods have been reformulated to meet the requirements of consumers who want to limit their fat intake. For example, a fast food chain (Nando's Chicken) produced a grilled chicken without skin that appeals to those wanting fast food with a lower fat content. Low fat hot dogs and meat pies have been produced for the school canteen market. 'Skinny' tea and coffees are becoming widely available and often cost no more than their full cream counterparts. Other examples include milkshakes made with reduced fat milk and popcorn prepared without butter.

Nutritionists and other health professionals have liaised with industry to generate ideas for reformulating food products that lead to population-wide dietary improvements as well as meeting market and commercial objectives. Industry awards and incentive schemes can also generate inducements for food industries to invest in research and development of healthy products. However, disseminating and promoting healthier alternatives of prepared products to lower income groups and people living in geographically distant areas remains a significant challenge for those aiming to improve food security. The relative cost of these products is a significant determinant of their uptake among people on limited incomes.

*Modify portions and packaging*

Staple foods should be available in a variety of portion sizes to meet diverse household needs. Although it is often more economical to purchase food in larger quantities, people on very low incomes do not always have sufficient cash flow to buy in bulk. Also, if they do not have adequate storage space or refrigeration facilities, food bought in larger quantities can be wasted as a result of spoiling or infestation with household pests such as weevils and mice etc. Small portion sizes are also important for people who live alone, particularly if they are on low incomes and cannot afford to waste leftovers. Pricing policies that subsidise the cost of small portions by spreading the cost of packaging across the range of portion sizes can significantly assist people on very low incomes.

The way processed food is packaged also affects its quality and the transportability of perishable food to distant communities. For example, breakfast cereals need to be packaged in ways that prevent crushing and avoid rapid deterioration in humid climates such as Australia's Top End.

*Example included in Section Five (page 85)*

- *Nature's Gold*

### *Food transport*

An efficient and effective food transport and distribution system is essential for maintaining a reliable, affordable and quality food supply. Improvements in food transport systems, storage technology and communications have resulted in significant improvements in the range of nutritious foods that are available in rural and remote areas. Some rural and remote communities, however, are still

prone to experiencing food transport deficiencies that impact negatively on their food supply; resulting in sales of poorer quality or more expensive food than in urban areas. For example, small remote Aboriginal communities existing on the geographic and economic fringe have been identified as the weakest link in the food supply chain.

As part of Northern Territory Food and Nutrition Policy Implementation Plan, the Food and Nutrition Unit of the Territory Services examined the food transport system of the NT and formulated a series of recommendations. These were: to establish a management pool for remote stores; an accreditation scheme for suppliers and transport operators; a tax rebate for suppliers and transport operators who service remote communities; and a watchdog committee to oversee food supply in the Territory (*Hughes, 1996*).

### *Food retail outlets*

The majority of people obtain their household food supplies from a supermarket and/or their local shops. Community food security is thus reliant on the availability of readily accessible, well stocked, and reasonably priced food retail outlets.

Although supermarkets and other food retail stores have state or national management, there is often potential for communities to influence local decisions regarding stock, promotion and pricing policies. It is even possible to influence major decisions such as the establishment and location of a supermarket. Interventions that target food retail outlets are described below according to whether they seek to improve the following:

- the location of supermarkets
- in-store price, availability, and promotion
- convenience stores and local shops
- order-from-home and home delivery services
- rural and remote store policies.

*Location of supermarkets*

Supermarkets are a key factor in determining the quality of the food supply in a community. They usually stock a wider range of goods and/or are able to offer relatively lower retail prices than alternative outlets. Primarily this is due to their economies of scale and significant purchasing power.

People with the lowest incomes often live in new housing estates on the very outskirts of cities, in the run-down parts of central business districts, or in rural or remote towns and settlements. These areas often lack supermarkets or other food retail options that can provide a variety of goods at reasonable prices. Mapping the location of supermarkets and influencing decisions about the establishment of new supermarkets in disadvantaged areas can significantly improve the food security of whole communities. There is also a need to coordinate the location of a supermarket with public transport routes to and from residential areas. Such coordination can significantly improve the quality of a food supply for those on limited incomes who do not own cars.

The establishment of a new supermarket in an under-served area requires one (or both) of the following options: either the retail sector identifies a consumer market of sufficient size and purchasing power to warrant a new outlet; or

the community must identify a need and work with both retailers and the public sector to create financing options that make a new supermarket economically viable.
The latter option has often encompassed other benefits, such as negotiated store management policies that provide jobs for local residents, training for employees, and a degree of community control and involvement in the supermarket operations and policies. (Factors that influence food retail planning and location are discussed in the Toronto Food Policy Council Discussion Paper #7).

*In-store price, availability and promotion*

While supermarkets usually contain a wide variety of foods, the stock of healthier foods is often minimal, and the in-store prepared foods (such as deli and salad bars) offer a limited range of relatively high fat dishes. Organised consumers who work as effective lobbyists can often significantly improve the range and quality of fresh produce that is stocked in food retail outlets; the price competitiveness of those foods; and the way healthy food options are displayed and promoted within stores. In-store promotion can assist consumers to locate the healthy choices; and the use of healthy catering practices for the prepared food lines in supermarkets has considerable scope for improving nutrition.

Where the aim of such action is to improve the food security of disadvantaged groups, the implementation of such interventions must be targeted to address the needs and priorities of those on low incomes. It is important to avoid promotion, education and catering activities that are more likely to assist people of higher socioeconomic status (SES) than those of lower SES. Activities that target lower income groups may include regular 'specials' that offer healthy food/prepared dishes at a reduced price; product tasting and demonstrations on how to prepare a variety of food staples; and in-store radio promotions and simple 'shelf-talkers' identifying cheap and healthy food options.

*Convenience stores and local shops*

Small corner shops, general stores, and convenience stores are commonly used as 'top up' shops to supplement larger shopping trips to a supermarket. However, for many disadvantaged people who are unable to access supermarkets on a regular basis, the small local shop can represent the primary food retail outlet. Those reliant on local stores include people without cars; older and disabled people who find public transport difficult to negotiate; those who live in new housing estates on the urban fringe where public transport is limited and where supermarkets do not yet exist or have been located away from the residential area; and people in remote areas with limited retail outlets (see rural and remote schemes). The key difficulties faced by those who rely on corner shops or general stores for their primary food supply are that the range of foods available is usually quite limited and the prices are often higher than in most supermarkets.

Small food retailers are often unable to modify the range and price of their goods due to an insufficient volume to achieve wholesale prices; small margins and under-capitalisation in refrigerated storage facilities; customers with little cash; and slow turnover and thus risk of spoilage of perishable goods. These sorts of difficulties (plus competition from supermarkets) have led to the current trend towards 'convenience stores' or 'general stores' that are owned by larger retail chains or petrol service stations, which are replacing the more traditional corner shop that was owned and run as a single family business. Although the newer convenience stores continue to sell basic 'top-up' items such as bread, butter and milk, they are also more oriented to the sale of high profit snack foods and drinks. However, because of their chain-store status they are able to buy in bulk and set prices competitively with supermarket prices, they have excellent refrigerated storage capacity, and they can rely on larger management infrastructures to anticipate turnover of perishable items. There may thus be improved potential for motivated community organisations and consumer groups to negotiate with these stores to include the type and range of foods that would benefit those who rely on them as their primary food supply.

*Order-from-home and home delivery*

Order from home and home delivery of food and groceries are important services for those who are housebound or with limited mobility (eg older and disabled people) and those without adequate transport (no car or public transport). Many supermarkets offer a home delivery service for a moderate fee (between five and seven dollars) if the shopper comes into the store to select their groceries. Some retailers also provide a complete 'shopping from home' service, where goods are selected either by phone or on the internet. Such services must be subsidised if they are to be accessible to people on low incomes.

Subsidised shopping and home delivery services can be negotiated using donor schemes, government grants, or tax incentives. Alternatively, some supermarkets may underwrite the cost of a subsidised service (eg to people with pension cards) if they are able to gain publicity as a 'good corporate citizen' and some commercial benefit from being recognised for their contribution to the community.

*Rural and remote store policies*

People living in rural and remote areas often have a very limited range of options for purchasing food. Rural and remote store policies to improve food supply aim to ensure that the existing shops recognise their special responsibility as main suppliers of food for health, and thus stock a range of good quality and healthy foods at affordable prices. This often requires collaboration between suppliers, transporters and retailers, as well as ensuring that all of the local population is able to get to the store on a regular basis.

*Examples included in Section Five (pages 86-89)*

- Arnhem Land Progress Association stores & food and nutrition policy
- Mai Wiru Food Policy
- Neighbourhood Partnership Awards Program
- Hartford Grocery Delivery Service

### *Prepared food outlets*

Many people obtain a regular and significant proportion of their diet from prepared food outlets such as workplace canteens, clubs, or fast food and takeaway restaurants. As a result, prepared food outlets are an important component of the food supply and it is important to consider the food preparation methods (or catering practices), quality of ingredients, and the variety and relative price of the food served. There is often potential to improve the nutritional quality of all foods on the menu, as well as introducing identified healthy choices. Nutritional improvements may include: substituting reduced fat milk in milk-containing drinks such as shakes and smoothies; using less fat in the preparation of meat, fish, chip and salad dishes; or using fibre-increased white or wholemeal bread.

As for most of the interventions targeting food supply, the health sector usually has minimal or limited authority over the range and price of food served in prepared food outlets, other than through specific health and safety regulations. Even government owned food services are usually managed by departments other than health. It is thus important that proponents of policy and practice aimed at improving food security adopt a collaborative approach and initiate projects of mutual benefit. There will be a need to 'sell' the benefits of modifying the food supply to the relevant managers and staff (that is, improved sales, publicity, community recognition), and food security objectives must be aligned with their existing imperatives and priorities.

Interventions aimed at improving the food supply in prepared food outlets are likely to target the following:

- institutional food services
- catering companies
- clubs, restaurants and takeaways

*Institutional food services*

Institutional food services operate in residential and non-residential organisations. Residential food services include those in hostels, out of home care services, supported accommodation and assistance program services, nursing homes and retirement villages, prisons and hospitals and in some boarding houses or group homes. The food security of the resident populations is dependent on the quality of these services, particularly when they have no alternative options for acquiring or selecting food.

Non-residential food services include those based in organisations such as schools, child care centres, workplace canteens or providers of Meals on Wheels. Their importance in determining food security comes as a result of the large number of people they serve, the regularity with which they are used (sometimes daily), and the fact that for some people, they may be the source of their main meal of the day.

Some institutional food services are subject to regulations related to the type and quality of the food served. Regulations and accreditation schemes present opportunities to improve how existing regulations are applied and implemented, or to modify the regulations themselves. Similarly, there may be a need to address the implementation of existing food and nutrition policies, or a need to develop or modify those policies. Where institutional food services are modified as a result of collaborations between bureaucracies, negotiations will often need to address issues such as the demarcation of roles, policy and practice objectives, and the requirements for evaluation and accountability (eg collaborations between Departments of Health and Education to improve school meal services).

Other challenges that may need to be overcome to improve institutional food services include increasing the food budget, improving facilities and equipment, reducing high staff turnover and staff shortages, and improving staff training. Some of these changes may be dependent on (or impact on) pay expectations or entitlements.

*Catering companies*

Some food outlets prepare all of their foods in-house. However, most food services obtain a proportion of the prepared food that is served from external catering companies. Catering companies have contracts with government funded services such as schools, workplace canteens, hostels etc, as well as commercial vendors such as sandwich bars and restaurants. There is potential in collaborating with catering companies to address the composition and nutritional quality of the food they supply.

*Clubs, restaurants and takeaways*

Licensed clubs and fast food or takeaway restaurants are used as a source of entertainment as well as a meal away from home. Club restaurants are often able to provide good value three-course meals as the restaurant is usually partly supported by other high profit functions like poker machines. Club meals can be further subsidised for members with pension cards, and such clubs are regularly attended by pensioners or people living alone for a cheap main meal and social interaction with other members.

Fast food and takeaway outlets often serve as industrial canteens, particularly if they are located near workplaces that do not provide a food service for their employees. Workers on large or remote industrial estates may thus be totally reliant on the local fast food outlet for their workplace meals, unless they are able to bring their own food from home. Fast food and takeaway outlets vary enormously in the quality and variety of the food served, and improvements in the range and nutritional quality of this food supply can have a big impact on the diet of a local workforce. Limited choice in prepared food is also an issue at roadside truck stops and service stations, particularly for regular long distance travellers such as truck drivers, bus drivers, and travelling sales representatives.

*Example included in Section Five (pages 90-91)*

- The Real Meal Hotel Award Scheme
- Start Right Eat Right

### Food aid and subsidised meals

Food aid refers to food relief or food assistance programs that provide free (or highly subsidised) meals and/or food parcels to take home. Food aid includes soup kitchens, food banks and emergency food parcels such as those provided by the Exodus Foundation, Wayside Chapel, Smith Family, Wesley Mission, Salvation Army, St. Vincent de Paul, Care Force, Sydney City Mission, Wollongong City Mission, Mathew Talbot Hostel etc. Food aid is sometimes referred to as a 'second-tier' food system because it often functions separately from the mainstream food supply and primarily serves the poorest and most destitute members of the community.

Food aid provides a food supply for people who fall through the cracks of other social and welfare services. Some people who rely on food aid need occasional or short-term assistance, while others are dependent on free or highly subsidised meals and food parcels for many years, if not the rest of their lives. Although food aid is an essential and effective safety net for people who run out of food, a reliance on food aid in the form of soup kitchens and emergency food parcels would not normally be considered as having achieved food security. Food security refers not only to being able to acquire food on a reliable basis, but also emphasises the 'socially acceptable' means by which people are able to acquire their food. Therefore, food security involves having access to adequate and sustainable services and resources so that people do not need to seek emergency food aid.

Subsidised meals can be an effective way of preventing or relieving food insecurity for low income groups and, for some people, may reduce the need for food aid. Subsidised meals are provided in workplace canteens, by some schools in the form of breakfast or lunch programs, and by community clubs and organisations. Subsidised meals are different to food aid in that they tend to be perceived as a community service rather than 'charity' and to be more socially acceptable.

Some different types of food aid and subsidised meals are described below. Interventions aimed at relieving or preventing food insecurity through food aid and subsidised meals may be directed towards the following aims:

- establishing new services where there is an unmet need
- promoting the use of existing services by those who need them
- improving the quality of the food provided.

*Soup kitchens*

Soup kitchens and other free food services provide prepared meals at a central point to all who turn up on the day. Soup kitchens are mostly attended by some of the most destitute members of the community, and serve a high proportion of people who are homeless, mentally ill or drug-dependent. The clientele range from people who attend only once or occasionally, to regular or daily and long-term customers. Attendance is determined

not only by need, but also by distance that people must travel, the availability of public transport (and money to pay for transport), existing health, and physical mobility. Soup kitchens are often described by those who attend as an opportunity for social contact as well as a place to obtain food.

Some providers of free food also provide other services, such as overnight lodging (hostels) welfare advice and referrals, assistance with finding employment, drug and alcohol counselling, medical services, and free or reduced price clothing and household goods. Thus the provision of food may be secondary to the other welfare and charitable functions of the organisation. The time and resources that are available to expand or improve the provision of food aid need to be examined and addressed in this context.

*Emergency food parcels*

Emergency food parcels are distributed by many charitable organisations to individuals and families who have run out of food and money. People are typically in most need of food parcels at the end of a pay period or before their next pension check. Because food parcels primarily comprise food donated from numerous sources (such as warehouse clearances, supermarket disposals, canned food drives, etc) the quality and adequacy of this food supply is random and highly variable. The nutritional quality of food parcels can be maximised if organisations have resources to recruit reliable donors and are able to adopt a coordinated approach to collating and disseminating food (see food banks below).

*Food banks*

Food banks are non-profit organisations that exist primarily to obtain a wide range of donated foods and to coordinate its distribution to those in need. Food banks often look like a foodmart or small supermarket, but the food is either highly subsidised or free.

*Subsidised meals*

Some charities run highly subsidised cafés with a menu-based choice of food that is purchased at low cost rather than provided as a free meal service. Much of the food sold in subsidised cafés is still donated or purchased at reduced prices, and the premises are often staffed by volunteers. Sometimes the clientele are able to exchange voluntary labour for free meals.

Community clubs often provide subsidised meals for people with pension cards. Club meals tend to be subsidised by the income generated from poker machines and other high profit club activities. Although subsidised club meals are highly valued by people on low incomes, the meal cost, the dress code, and the social norms of most clubs do tend to exclude the most destitute and needy members of the community. The benefit for the organisations involved may come in the form of good publicity and marketing as positive contributors to the local community, or in terms of recruiting club members and attracting potential customers for other activities.

*School meals*

Some schools provide highly subsidised or free school lunches and/or before-school breakfast programs. School meals may be provided free to all children who attend the school. Alternatively school meals can be means-tested and only provided free to those children whose parents have pension cards or income support. The way that school meals are delivered can have a significant impact on the way they are perceived (either as a service or as a charity) and how well they are used. The uptake of means-tested school meal programs is sometimes very low, particularly among those children who come from the poorest families in greatest need of support. This tends to occur if children and parents feel stigmatised for being identified and labelled as ‘poor’ or ‘disadvantaged’. Free school meals and breakfast programs are more appropriately targeted by being introduced to whole schools in disadvantaged areas. However, such targeting does not address the needs of disadvantaged children living in more affluent areas.

*Examples included in Section Five (pages 92-95)*

- Foodbank Australia
- Food-Share Australia
- The Exodus Foundation
- US Food and Nutrition Service

## Interventions to improve access to food

Interventions to improve access to food aim to ensure that people have adequate resources, capacity, knowledge and skills to acquire and prepare a healthy diet. The required resources include financial, transport to shops, and food storage, preparation and cooking facilities (see Figure 1 in Section 2).

Downstream and midstream initiatives to improve access to food rely on targeted short to mid-term interventions that directly provide, or improve the quality of, the following resources:

- integrated services and referral systems (eg between health and income support)
- income support
- transport to food suppliers
- appropriate storage and kitchen facilities
- health education: food and nutrition, and life skills.

Upstream initiatives seek to improve access to food in the longer term (and ensure access is sustainable) by addressing the broader social and economic determinants of health such as employment, income levels and education.

See Section Four (Background Reading) for further descriptions of downstream, midstream and upstream interventions, WHO recommendations for addressing social and economic determinants of health, and information on inequities in health.

### *Targeted interventions*

Targeted interventions are those that reach the individuals, households or communities who have been identified as having inadequate or unreliable access to food and thus suffer from food insecurity. Targeting is designed to ensure that resource allocation aimed at improving food security actually reaches those who are most in need. Interventions should be targeted in the development of objectives, selection of strategies, implementation and monitoring, and in the evaluation of program reach and effectiveness.

Targeting is often done using a two- or three-tiered approach, where program recipients may be selected on the basis of geographic area; membership in a biological or life-stage group considered to be nutritionally vulnerable; and then by targeting those who are most in need as a result of their individual socioeconomic or nutritional status. For example, to reach those families with pre-school children who are most in need, a food security program may target a whole neighbourhood or community with a high proportion of disadvantaged people. Then, a setting that provides services to the age or population group most in need may be identified (eg child health clinics, or food service in long day care centres). Further targeting might involve means testing to provide free meals or day care to indigent families. However, targeting individuals can be counter-productive, as the stigma associated with means testing often alienates those most in need of assistance. Attention to factors that are 'target group sensitive' in the design of programs is also needed. For example, the foods introduced to day care menus need to be acceptable to children and their parents.

### *Integrated services and referral systems*

Integrating nutrition/food security services into health, welfare and food assistance services and programs for the disadvantaged is an effective means of reaching those at greatest risk of food insecurity.

The difficulties that some people face in acquiring food are exacerbated when they have been unable to make use of existing income support and community services. Integrated services and referral systems are about identifying those who are most in need and/or have 'fallen through the cracks' in receiving resources/services/support; and establishing formal and effective links between health, welfare and social services in order to better address their client's material, economic and environmental barriers to food security.

Integrated nutrition/food security services and referral systems to improve food security would aim to implement the following:

- an assessment of food insecurity and barriers to maintaining a healthy diet, (this is often combined with an assessment of selected aspects of dietary intake and nutritional status such as child growth)
- advice on relevant options for action
- referral to relevant services and agencies
- follow-up to ensure clients were seen and problems resolved
- advocacy on behalf of the client to overcome difficulties in using referred services.

The following types of services and programs are relevant to a nutrition/food security assessment and referral network:

- general practitioners/primary health services, including outpatient clinics/hospital services
- nutrition and dietetics services
- social and welfare services, aged care and disability services
- social security/income support/housing assistance
- food aid/food subsidies/school meal programs
- local food and nutrition projects, such as shopper shuttles to shops, home shopping and delivery services, nutrition education and life-skills programs
- employment placement, retraining programs.

The introduction of new systems (such as food security assessment, referral, advice and follow up) into existing services must be done in a way that does not overburden the time and resources of existing staff. In order to expand the role of existing generalist staff in health and welfare services to include food security assessment/referral the additional demands on staff time, resources and expertise must be limited; and training, supervision, and quality assurance systems need to be provided. In many settings, additional food and nutrition-dedicated staff are required to ensure that the food security component of an existing service is effective and sustainable.

Nutrition and dietetics professionals are expensive and in short supply, and therefore some services have introduced nutrition/food security para-professionals (community nutrition workers). These workers often come from the disadvantaged communities they serve and are partly selected on the basis of their perceived credibility, trustworthiness, and networks in the community. Carefully designed job descriptions, special training programs, supervision, support, mentoring, and service monitoring are required to ensure that such workers have the capacity to effectively carry out their roles. Community nutrition workers have been in existence for many years in indigenous and other disadvantaged communities in the United States. In Australia, examples of developing a specialist role can be seen among specialised Aboriginal health workers and 'good food workers' in stores that serve indigenous communities.

Although initial contact and assessment for integrated nutrition/food security services may commence in a clinic or welfare service, tailored education, advice, and referral is often most effective when it is offered within the context of a person's own home. Home visiting is one of the most effective means of targeting hard-to-reach groups. In some programs community nutrition workers base their broad community education activities in a clinic, but provide outreach home visits to those with identified problems.

*Examples included in Section Five (pages 96-98)*

- Putting Families First in NSW
- Comprehensive Nutrition Action Program
- Home and Community Care Project

### *Income support*

Inadequate income has been reported as the main reason why many households are unable to access enough food for a healthy diet or experience anxiety about food (*New Zealand Network Against Food Poverty, 1999*). Income support can influence the type and range of foods that can be purchased, as well as other requirements for sustaining a healthy diet, such as personal transport for those living in remote areas, or accommodation and kitchen facilities.

Accommodation is often the largest monthly expense and takes up a significant proportion of the disposable income available to the unemployed and low-wage earners for other utilities. Indirect income support targeting non-food related costs such as rent or mortgage repayments and bills can assist households to redirect a greater proportion of disposable income to purchasing food.

To influence policies related to the level of various forms of income support or eligibility criteria for income support, advocates of food security need to engage with advisors and policy makers in the relevant portfolios. This may be done either behind the scenes or though public debate. Research and monitoring initiatives that generate data on the prevalence and causes of food insecurity are essential to inform debate.

*Example included in Section Five*

- The Council of Social Service of NSW [advocacy] (page 99)

### *Transport to food suppliers*

Regular and reliable public transport between residential areas and a supermarket is a key requirement of food security, particularly for those who are unable to obtain and maintain a car. Transport routes were not necessarily designed to get people to and from shopping centres efficiently; schedules may be infrequent and/or unreliable (particularly in less populated areas); and usually there is no assistance available to carry on a week's supply of shopping parcels or room to store them during the journey. Thus people on low incomes who live in communities without adequate transport services or who live away from public transport routes find this to be a major impediment to accessing affordable and healthy food. Difficulty with transport is also a problem faced by those who need to access free meals and food parcels (food aid) but live long distances from the main distribution centres.

Improvements to public transport services can include modifying or increasing transport routes, adding shelters along the route, providing storage space for shopping parcels, and including assistance for older and disabled passengers on specified services. Alternatively, a food policy coalition or other organised community groups may be able to establish a shopper shuttle for disadvantaged areas. Shopper shuttles are a subsidised or complementary transport service for supermarket customers that pick up from a defined location or from people's homes if they are disabled. Shopper shuttles can sometimes negotiate with local community organisations, social services agencies, government departments, or corporate organisations to use their fleet vehicles during off-peak periods.

### *Storage and kitchen facilities*

Interventions to improve storage and kitchen facilities aim to provide a home environment that is conducive to food security. Households need adequate storage space and functional kitchen facilities to sustain a healthy diet on a low income, particularly as food prepared at home tends to be cheaper than ready made or take-away meals. Many rental properties, hostels, boarding houses and other temporary forms of accommodation do not have all of the following basic facilities: clean running water, adequate food storage space, a functioning stove, a fridge/freezer, and a food preparation area. Indigenous populations are particularly disadvantaged by the poor quality of the housing and kitchen facilities that exist in some of their communities. Clearly people who are homeless and living on the street or in temporary shelters such as squats, cars, tents, caravans etc, are the least likely to have adequate food storage, preparation and cooking facilities.

Intervention strategies may include monitoring and reporting the status of current facilities; advocating and implementing targeted funding and programs to improve housing and kitchen facilities; reviewing and implementing building regulations and design specifications of kitchen facilities in low cost housing, hostels and other forms of accommodation, and improving facilities (and skills as required) in long-term and short-term residential premises for the homeless, mentally ill, disabled or older people.

*Example included in Section Five*

- Anangu Pitjantjatjara Design Guide (page 100)

### *Health education – food and nutrition, and life skills*

Health education alone does not enhance food security. Health education can be beneficial however, if it is provided as part of a comprehensive program that also delivers essential resources. Health education to improve food security may address food and nutrition knowledge and skills (such as dietary recommendations, selecting healthy food choices, cooking on a budget etc), as well as generic life skills (such as using social services, negotiating bureaucracy, budgeting etc).

Some health education strategies are readily targeted to vulnerable groups. Examples include nutrition screening/ case finding with one-on-one nutritional advice through primary health care services (with or without home visits) and combined growth monitoring of children with education or advice through home visiting; early childhood programs; and school nurses.

In the United States, nutrition education is often linked to federal food assistance programs, so for example, Women, Infants and Children Program (WIC) recipients usually participate in dietary and growth assessments; and counselling on maternal, infant and preschool diets. Evaluations suggest that for many low income clients, the degree to which health education programs are supplemented with food aid or financial assistance is the key determinant of whether they are able to use their acquired knowledge and skills to improve their dietary intake (*Anderson et al, 2001; Basiotis et al, 1998*).

Currently in Australia, growth monitoring is done routinely by early childhood nurses only for the first few weeks of infancy, after which attendance rates at these services drop off substantially. Growth monitoring is done in selected indigenous communities as a method of identifying and intervening to improve the relatively higher rates of growth retardation. Extending pre-school growth monitoring has significant potential for identifying and addressing childhood food insecurity.

Targeted education can also include self-help and peer education programs; and training 'gatekeepers' in agencies or organisations who service poor or disadvantaged people to give one-on-one advice or small group education. Social marketing also segments and targets those at risk of food insecurity and thus can be useful in developing and promoting appropriate messages about dietary behaviour.

Other nutrition education and life-skills strategies target the population as a whole. For example, media campaigns; point of purchase programs; nutrition in school curricula; and nutrition labelling. In the past, interventions aimed at the general population have tended to primarily benefit people of middle and upper social and economic status, rather than the poor and disadvantaged. There are various reasons why disadvantaged groups often do not benefit from generic nutrition education campaigns. For example, such campaigns have tended to assume the audience has a wide range of food selection options that are not actually available to many people on low incomes. Also, broad nutrition education programs do not address the specific difficulties of food security that are faced by low income and disadvantaged groups.

*Examples included in Section Five (pages 101-104)*

- The Wellness Guide
- Food Cent$
- Gutbusters
- 2 Fruit 'n' 5 Veg Every Day Campaign

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# 4 Background information

## *The determinants of health*

Health and wellbeing are determined by a wide range of biological, behavioural, environmental and socioeconomic factors that affect people's lives. Health is dependent on factors that work at an individual level, as well as those manifesting at social, system and community levels. These determinants of health include individuals' genetic make-up; physical and emotional nurturing; health promoting or risky behaviours; exposures to pathogens; and involvement in accidents and trauma. Health is also dependent on the availability of health services; people's physical and social environment; and their participation (or role) in civil society; as well as material and economic advantages or disadvantages.

### *Shifts in perspective on determinants of health*

Health problems change over time, as does our understanding of the determinants of health. The way that health and its determinants are conceived is significant in that they give rise to the way we approach, define and address health problems.

Professionals, organisations and communities involved in public health policy and practice will often identify and emphasise the determinants of health differently. For example, when decision makers perceive different determinants of health as the most important or most amenable to change, they will adopt different priorities for planning interventions and programs. This will result in different objectives and strategies to modify those determinants.

In the first part of the 20th Century, public health interventions focused on infectious disease and sanitation. Emphasis was placed on policy and practice that addressed environmental and social factors such as clean water, adequate housing, education, and safe working conditions. Those benefiting from the highly effective interventions that followed were often the most poor and disadvantaged members of society.

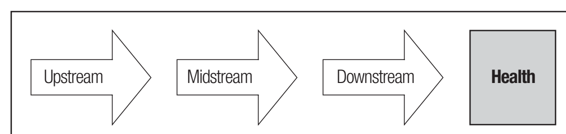
Widespread improvements in health led to a shift in focus to more chronic diseases such as coronary heart disease, stroke, and diabetes; and researchers began to explore the risk factors for chronic ill health. In the latter part of the 20th Century, public health research and practice have emphasised physiological and biological risk factors such as blood pressure, cholesterol, and glucose tolerance; and promoted modifications to health related behaviours such as diet, physical activity, and drug and alcohol consumption.

A resurgence of interest in social, economic and environmental determinants of health has emerged since the early 1990s. This was prompted by strong evidence from around the world of persistent and growing inequalities in health: people with the lowest socioeconomic status are consistently shown to have the highest rates of morbidity and mortality.

Attention to socioeconomic factors as important determinants of health has been reinforced by the relative ineffectiveness of many public health interventions among those who are socially and economically disadvantaged. Decades of intervention evaluations have found that it is often only the educated and affluent groups in society who benefit from health education. As a result, researchers and practitioners have been seeking alternative (structural and material) solutions to the public health problems of disadvantaged groups.

### *A useful approach*

It can be useful to consider the determinants of health along a continuum of 'upstream' to 'downstream' factors, which affect the health of individuals and populations. Factors that have the most direct or immediate impact on life expectancy and quality of life, or which are identified at physiological or biological levels, are described as downstream (eg immune function or physical trauma). At the other end of the continuum, upstream factors are those perceived to have indirect or longer-term effects on health (eg individual education and income, or government health and welfare policies).



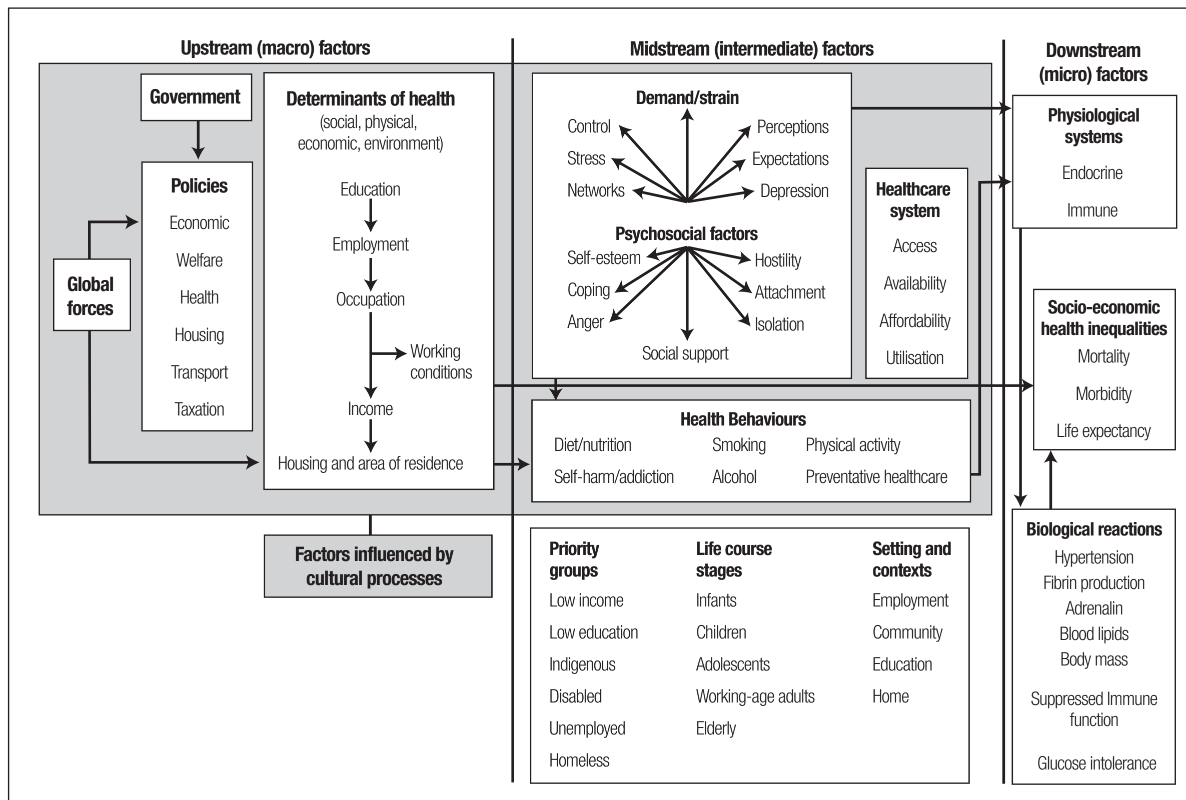

The same continuum can be used to reflect the relationships that the determinants of health have on each other. For example, upstream factors (such as income) may affect midstream factors (such as diet), which affect downstream factors (such as blood cholesterol and body mass index).

The Queensland University of Technology (QUT) used this approach in their 1999 report to the Commonwealth Department of Health and Aged Care: *Socioeconomic determinants of health – towards a national research program and a policy and intervention agenda*. Their 'framework of socioeconomic determinants of health' is reproduced in Figure 4.

The literature review included in the above report identified education, employment, occupation and working conditions, income level, housing and area of residence as key upstream determinants of health. These ssocioeconomic factors were identified as *fundamental* to health due their impact on midstream factors such as health behaviours and psychosocial processes, downstream factors such as biological reactions, as well as their direct influence on physical and mental health.

The framework in Figure 4 acknowledges the direct relationship between biomedical and physiological variables and health, and retains health behaviours and psychosocial factors as important points of intervention to improve health. It also facilitates an explicit consideration of the effect on health of broader social and economic polices and programs. It promotes recognition that socioeconomic factors not only impinge on the relative effectiveness of midstream interventions, but also themselves directly impact on morbidity, mortality, life expectancy and quality of life.

***Figure 4. A framework of socioeconomic determinants of health***




*Source: Turrell G & CD Mathers, Socieconomic status and health in Australia. MJA 2000; 172: 434-437. Copyright 2000. The Medical Journal of Australia – reproduced with permission.*

### *Health as a resource for social and economic growth*

The degree to which upstream socioeconomic factors are perceived to be important and modifiable determinants of health will determine whether they become points of intervention for policy makers and practitioners.

It is important to remember that the causal link between social and economic status and ill health can run in both directions: that is, ill health often contributes to loss of income and can trap people in poor or deprived living conditions. A position of the World Health Organisation is that health is an important resource for economic growth and thus a key to the alleviation of poverty. Their proposition is that governments can influence the social and fiscal development of nations by investing in policies and programs that promote and improve the health of the poor.

### *Inequities in health*

In the last two decades, primary research, literature reviews and various government commissioned reports have confirmed that socially patterned inequalities in health are common and increasing, both in Australia and overseas. The conclusions were unequivocal in the Australian report prepared in 1999 by QUT.

‘Specifically, persons variously classified as low SES have higher mortality rates for most major causes of death, their morbidity profile indicates that they experience more ill health (both physiological and psychological), and their use of health services suggests that they are less likely to act to prevent disease or detect it at an asymptomatic stage.’

These differences or inequalities in health are sometimes referred to as inequities. This is primarily when they are perceived to be beyond the immediate control of those affected, but potentially amenable to modification through policy or practice interventions.

Inequities in health reflect disparities in non-communicable diseases such as heart disease and cancer, as well as disparities in the communicable diseases that are most commonly associated with material deprivation. The Australian review quoted above also revealed significant gaps in knowledge; and identified a need for:

- clearer understanding of the problems faced by disadvantaged groups
- better explanations for the growing inequalities in morbidity and mortality from almost all causes
- more development and evaluation of strategies to effect change.

### *Causes of health inequities and ‘health disadvantage’*

Current explanations of health inequities are based on a century of research that has described the social patterns of health and disease. It seems that social patterns of disease and inequities in health reflect different, but overlapping, effects. These are as follows:

- The effects of poverty, where absolute social and economic disadvantage causes ill health.
- The effects of unequal social and economic status, where relative disadvantage results in poor health in relative terms. Thus gradients of socioeconomic status are correlated with gradients in health status.

It is also clear that interactions between social and economic determinants of health and health status can impact two ways. For example, poor mental health can lead to addictive behaviours and a loss of employment that can lead to poverty, poor housing, poor diet and further ill health. As a result, broad policy initiatives to address social and economic determinants of health usually need to be supplemented with local programs that address the specific needs of ‘at risk’ groups.

Some health professionals may find it useful to think of health inequities in terms of ‘health disadvantage’ – which can include the following (Furler et al, 2002):

- High levels of health need (complex chronic health problems).
- Vulnerability associated with life stage issues (young or older people.
- Socioeconomic factors (unemployment or language difficulties).

## Addressing inequities in health

Societies vary as to whether and how they seek to address inequities in health. For example, whether emphasis is given to the relief of absolute or relative socioeconomic disadvantage; and what types of policies and programs are considered and adopted to address the disadvantage. Factors that affect the choices made by society include: the state of national economies; social and economic gradients within countries and populations; prevailing social values and political priorities; and the perceived political and administrative feasibility of proposed solutions.

Researchers and practitioners seeking to address inequities in health must recognise and engage in the relevant societal, political and bureaucratic processes. In NSW, health inequities and the social and economic determinants of health have been identified as important policy and practice agendas in *Healthy People 2005* and the NSW Public Health Forum.

### WHO recommendations for policy and practice

Empirical evidence on the determinants of health and health inequities has implications for policy and practice beyond the health sector. It is clear that the health sector cannot alone redress the socioeconomic determinants of health and inequities in health. Cross-sectoral strategies that address upstream social and economic factors, as well as midstream and downstream factors are more likely to have a positive impact on population health than interventions that primarily employ health services and health education.

In 1998 the World Health Organisation (Europe) and the International Centre for Health and Society published a 10-point plan to address the social determinants of health in key areas. Their policy recommendations were based on the available evidence about the determinants of health and health inequalities, and are reproduced here: (from '*The Solid Facts'* available at www.who.dk/document/E59555.pdf)

*The social gradient*

Key transition periods in people's lives (such as early childhood, going to school, starting work or changing jobs) affect health by pushing people onto more or less advantaged paths. Those who are already disadvantaged are at risk of becoming more disadvantaged in each transition. Policies need to provide not only safety nets, but also opportunities to offset earlier disadvantage.

*Stress*

The social environment and material security are as important to health as the physical environment. Social involvement and a sense of belonging are important and modifiable determinants of health. Programs should support families with young children, encourage community activity, combat social isolation, reduce material and financial insecurity, and promote coping skills in education, rehabilitation and work settings.

*Early life*

Health and development needs to be fostered early in life, particularly among those in poor social and economic circumstances. Policies should aim to reduce smoking among parents and increase their understanding of children's health and emotional needs, introduce pre-school programs that involve parents, ensure mothers have adequate social and economic resources, and improve opportunities for educational attainment at all ages.

*Social exclusion*

Societies that pursue more egalitarian policies often have faster rates of economic growth and higher standards of health. To tackle the health effects of social exclusion, action is needed on a number of levels. For example, legislation to protect the rights of migrants and minority groups and prevent discrimination; ensured access to health care, social services and affordable housing; income support, adequate minimum wages, and educational and employment policies to reduce social exclusion; income and wealth redistribution to reduce material inequalities.

*Work*

The psychosocial environment at work contributes to the social gradient in ill health. Improved conditions at work, such as appropriate involvement in decision-making, more control, greater variety and opportunities for development, and adequate rewards in terms of money, self-esteem and status, will lead to a healthier workforce and improved productivity. Workplaces that are also ergonomically appropriate will reduce the burden of musculoskeletal disorders.

*Unemployment*

The health effects of unemployment are linked both to psychological consequences and financial problems, particularly debt. Unsatisfactory or insecure jobs can be as harmful as unemployment. Policy should have three goals: to prevent unemployment and job insecurity; reduce the hardship suffered by the unemployed; and restore people to secure jobs. Limitations on working hours can also be beneficial to health if combined with job security and job satisfaction.

*Social support*

Good social relations can reduce the physical response to stress. Providing social support improves the outcome after heart attacks; longevity in people with some types of cancer; and pregnancy outcome for vulnerable women. Reducing income inequalities and social exclusion can lead to greater social cohesiveness and better health in the population. Improved social environments in schools, the workplace and the community will help people to feel valued and supported in more areas of their lives and will contribute to their health-particularly mental health. Policies and practices that cast others as socially inferior or less valuable are divisive and harmful to health.

*Addiction*

Policies and programs to deal with drug problems need to support and treat people with addictive behaviours and address the patterns of social deprivation that cause or contribute to these problems. Thus policies need to regulate availability through pricing and licensing, provide information about less harmful forms of use, reduce the recruitment of young people and provide effective treatment services for addicts. Effective drug policy must be supported by social and economic policies that change the social circumstances that breed and perpetuate drug use.

*Food*

Dietary goals are well established (more fresh vegetables, fruits, pulses (legumes) and minimally processed starchy foods, and less animal fat, refined sugars and salt). To achieve these goals local, national and international government agencies, non-government organisations and the food industry should ensure the following: availability of high quality fresh food to all, regardless of their circumstances; democratic decision making, accountability and consumer participation in all food regulation matters; protection of locally produced foods from inroads of the global food trade; adequate consumer knowledge of food and nutrition, cooking skills and the social value of preparing food and eating together; availability of useful information about food, diet and health; use of scientifically-based nutrition reference values and food-based dietary guidelines to facilitate development and implementation of food and nutrition policies.

*Transport*

Cycling, walking and use of public transport promote health because they provide exercise, reduce fatal accidents, increase social contact and reduce air pollution. National and local policies must reverse the current trend of increasing dependence on and use of cars. Roads should give precedence to cycling and walking for short journeys in towns, and public transport must be improved with regular and frequent connections for rural areas. Policy incentives need to change, for example, reducing state subsidies for road building, while increasing financial support for public transport, creating tax disincentives for business cars and increasing costs of parking. Changes in land use should convert road space to green spaces, dedicate roads to pedestrians and cyclists, increase bus and cycle lanes, stop growth of low density suburbs and out of town supermarkets that increase car use, and introduce traffic restrictions that reduce congestion.

*Intervention planning and evaluation*

When identifying objectives for policies and programs to reduce inequities in health, it can be useful to think in relative terms-aiming to reduce the gap between the rich and the poor by improving the health status of disadvantaged groups. It may also be feasible to identify measurable targets (what will be modified, in which population, how much of an improvement, and by when).

To evaluate such interventions it is important that the relative health and wellbeing of disadvantaged populations is measured. For example, evaluation of programs that aim to modify the determinants of health inequities relies on measuring levels of disadvantage (relative or absolute) in the target group. Evaluation also requires monitoring whether health status and/or disadvantage change over time.

In summary, objectives expressed in relative terms and measures of relative effectiveness (that is, for low and high income groups) emphasise the reduction of inequities. The focus on relative program effectiveness is required because improvements in the average health of a population are often achieved by improving the health of those who were already relatively healthy, while having no impact on those most at need (Gwatkin, 2000).

## References and further reading


### Key sources

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### Further reading

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Marmot M (2001) From Black to Acheson: two decades of concern with inequalities in health. A celebration of the 90th birthday of Professor Jerry Morris. *International Journal of Epidemiology* 30 (5): 1165-71.

Oldenburg B, McGuffog ID, Turrell G (2000) Socioeconomic determinants of health in Australia: policy responses and intervention options. *Medical Journal of Australia* 172 (10): 489-92.

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# 5 Examples of interventions

This section presents actual examples of policies, programs or projects that have been conducted in Australia or overseas. The interventions presented are for the purposes of illustration only, and are not intended to be a comprehensive listing of food security initiatives. Each example is presented in the form of a one-page summary of the initiative concerned, and references, websites or contact details are provided for those who wish to obtain further information.

The intervention examples have been grouped according to the intervention options described in Section Three. This classification is only a guide to assist those who wish to cross reference between Sections Three and Four; and readers will find that many of the interventions presented here can be categorised in more than one way.

The policy and practice examples included in Section Five are as follows:

## *Generic intervention strategies*

### ***Food policy coalitions or councils***

Canada's Action Plan for Food Security

Toronto Food Policy Council

South Sydney City Food Policy

The Penrith Food Project

The Hartford Food System

### ***Research, monitoring and evaluation***

*NSW Child Health Survey 2001*

*National Health Survey 2001* (and *National Nutrition Survey 2001 and 1995*)

*The Healthy Food Access Basket Survey* (1998 & 2000)

*NSW Healthy Older People's Health Survey* 1999

*NZ Food: NZ People, 1997 National Nutrition Survey*

*Community Food Security Assessment Toolkit*

*The Queensland Food System: Description of Distribution, Marketing and Access*

*Food and Nutrition in NSW;* a catalogue of data

### ***Advocacy***

Sustain

Child Poverty Action Group (School Meals Bill)

Hidden Hunger

Public Issues Education

### ***Government subsidies and incentive schemes***

Western Australian Nutrition Awards

### ***Community development and grant schemes***

Community Food Projects Competitive Grants Program

### ***Harnessing applied technology***

No relevant examples identified

## *Interventions to improve food supply*

### ***Education about the food and nutrition system***

From Land to Landfill: a Systems Perspective

Penrith District's Open Farm Day

Food systems professional education (FSPE) of W.K. Kellogg Foundation

### ***Food production***

Farmers Markets and the Farmers Market Program

Regional Infrastructure for Sustaining Agriculture & Pennsylvania Association for Sustainable Agriculture

Holcomb Farm Community Supported Agriculture

The Edible School Yard

Direct Farm Marketing and Tourism Handbook

American Farmland Trust

### ***Food processing***

Nature's Gold

### ***Food transport***

No relevant examples identified

### *Food retail outlets*

Arnhem Land Progress Association stores & food and nutrition policy

Mai Wiru Food Policy

Neighbourhood Partnership Awards Program

Hartford Grocery Delivery Service

### *Prepared food outlets*

The Real Meal Hotel Award Scheme

Start Right Eat Right

### *Food aid and subsidised meals*

Foodbank Australia

Food-share Australia

The Exodus Foundation

Food and Nutrition Service

## *Interventions to improve access to food*

### *Integrated services and referral systems*

Families First

Arizona Comprehensive Nutrition Action Program

Victorian Home and Community Care Project

### *Income support*

The Council of Social Service of NSW (advocacy)

### *Transport to food suppliers*

No relevant examples identified

### *Storage and kitchen facilities*

Anangu Pitjantjatjara Design Guide

### *Health education and life-skills*

The Wellness Guide

Food Cent$

Gutbusters

2 Fruit ‘n’ 5 Veg Every Day Campaign

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|---|---|
| **Intervention heading** | Intervention strategies |
| **Sub-heading** | Food policy coalitions |
| **Example** | Canada's Action Plan for Food Security (a nationwide counterpart of a food policy coalition) |
| **Location and year** | Canada – current |
| **Objective** | A blueprint for action to improve the food security of Canadians. |

### *Summary of initiative*

*Canada's Action Plan for Food Security* represents Canada's formal response to the 1996 World Food Summit, where participants made a commitment to reduce the number of undernourished people by half before 2015. The Canadian Action Plan encompasses all levels of Government as well as voluntary and private non-government sectors, and as such represents a multi-sectoral consensus on addressing food security in Canada.

Part One of the document describes what food security is; Parts Two and Three outline Canada's domestic and international plans for action; and Part IV describes how the action plan will be implemented and monitored. The document is not an inventory of existing programs or actions but 'a blue print which sets out the highest priorities'. The ten priorities are: the right to food; the reduction of poverty; promotion of access to safe and nutritious food; food safety; traditional food acquisition methods of Aboriginal and coastal communities; food production; emphasis on environmentally sustainable practices; fair trade; acknowledgement of peace as a precursor to food security; and a monitoring system for food insecurity.

Three actions followed from this report:

1. Establishment of a food security bureau to coordinate the implementation and monitoring of the key actions identified in the action plan and report on them to Canadians every two years.
2. Use of Canada's Action Plan as a springboard for advocacy and public information.
3. Enhancement of public awareness through World Food Day activities.

### *Evaluation*

Implementation of Canada's Action Plan for Food Security is monitored and evaluated. Progress reports are available on the Food Security Bureau website.

### *Information sources*

Website of Food Security Bureau, Agriculture and Agri-Food Canada: www.agr.gc.ca/misb/fsb/FSB2eng.html.

Canada's Action Plan for Food Security document: www.agr.gc.ca/misb/fsb/fsap/fsape.html.

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|---|---|
| **Intervention heading** | Generic intervention strategies |
| **Sub-heading** | Food policy coalitions or councils |
| **Example** | Toronto Food Policy Council |
| **Location and year** | Toronto, Canada – 1991-current |
| **Objective** | To work with business and community groups to achieve a food system that fosters equitable food access, nutrition, community development and environmental health. |

### *Summary of initiative*

The Toronto Food Policy Council (TFPC) was established by Toronto City in 1991 in response to the United Nations Healthy Cities movement; with the aim to develop policies and programs that improve the local food system and promote food security. The TFPC now operates as a sub-committee of the Toronto Board of Health. Its members include city councillors and volunteer representatives from consumer, business, farm, labour, multicultural, anti-hunger advocacy, faith, and community development groups.

The TFPC collaborates with community organisations and networks to advocate for actions consistent with its policies. It serves as a forum where participating organisations are able to discuss policy issues and collaborate on integrated policies to address issues that may otherwise fall between the cracks of established departments and specialist agencies. Examples of key policies of the TFPC include: preserving urban agriculture; urban planning for food security; reducing urban hunger; food retail structure and food security; and consumer sovereignty.

The TFPC is also represented on a broadly-based committee of the Toronto City Council called the 'Food and Hunger Action committee'; a group dedicated to working with community groups to better coordinate existing food security efforts/programs and to identify ways of using existing resources more effectively.

### *Information sources*

The Toronto food policy council has a comprehensive website that details most of its activities over the past ten years: www.city.toronto.on.ca/health/tfpc_index.htm.

The site also provides access to TFPC publications, including a valuable series of 15 discussion papers that examine the links between food systems policy and food security and hunger. www.city.toronto.on.ca/health/tfpc_discussion_paper.htm.

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| **Intervention heading** | Generic intervention strategies |
| **Sub-heading** | Food policy coalitions or councils |
| **Example** | South Sydney City Food Policy |
| **Location and year** | Australia, Sydney – 1996-current |
| **Objective** | To move towards an accessible, affordable, safe and nutritious food supply for the population of South Sydney. |

### *Summary of initiative*

South Sydney City (SSC) food policy was the result of a collaborative effort between the following participants of the Food Policy Working Party: SSC Council members; officers from the Department of Health and Community Services, and the Department of Planning and Building; representatives from Central Sydney Health Promotion Unit; and members from South Sydney community and business sectors.

The food policy aims to:

*'ensure that; people have the choice of a nutritious diet, nutrition information is easily obtained, food assistance services are well coordinated, food services provided by the council are accessible, support exists for a healthy environment for food wholesalers/retailers and that the food supply is viewed as part of a broad view of the health of the community.'*

The policy highlighted six issues: availability of the food supply; education for healthy eating; food quality; food diversity and accessibility; the council's direct food services; and environmentally sustainable food.

Some of the initiatives implemented as a result of the policy include: the development of new planning regulations to allow corner stores to be situated in residential areas; nutrition training for environmental health officers; nutrition workshops for childcare staff; and provision of financial assistance to emergency food relief agencies for construction of new infrastructure.

### *Evaluation*

The Food Policy Working Party annually reports back to SSC Council on how well they have met the stated objectives.

### *Information source*

South Sydney City Council's Food Policy Steering Committee. *What's eating South Sydney?* South Sydney City Council, 1995.

### *Contact*

Ray Elliot, Environmental Health Unit Coordinator, South Sydney Council. Tel. (02) 9288 5330.

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|---|---|
| **Intervention heading** | Generic intervention strategies |
| **Sub-heading** | Food policy coalitions or councils |
| **Example** | The Penrith Food Project |
| **Location and year** | Sydney, Australia – 1991-current |
| **Objective** | Increase and improve the supply of affordable, acceptable, nutritious and safe food available to residents and workers in Penrith, especially disadvantaged groups. |

### *Summary of initiative*

The Penrith Food Project (PFP) is a local food system project that began in 1991 as a result of collaboration between Penrith City Council, the Nepean Health service, and the University of Sydney. Project strategies were based on the findings of a feasibility study, which identified project partners; conditions for successful collaboration; and the components of the food system to be addressed. The project targeted the following settings: the agricultural sector, food retailers, institutional food services, neighbourhoods and households. Project planning was also guided by relevant health promotion theories.

In 1993 a multi-sectoral food policy committee was established to develop a strategic plan and to steer the PFP. The goal of improving the local food system encompassed the following principles: retaining local agriculture; improving the food supply and access to food; promoting breast feeding; and protecting food safety. Technical working groups were formed to guide specific projects. Achievements to date include: open farm days; a rural land policy review; consideration of food retail facilities in urban planning policy; changes to bus route to improve access to food for residents of new housing estates; home delivery services for groceries and fruit and vegetables; school breakfast and gardening programs; food and nutrition policies for before/after school care and long day care centres; Sydney's fresh food bowl network; development of policies for parenting facilities; and a 'model' workplace policy to support breastfeeding.

### *Evaluation*

Masters G (1998) *Formative evaluation of the Penrith Food Project-Final report.* Nexus Management Consulting.

Hawe P, EK Stickney (1997) *Developing the effectiveness of an inter-sectoral food policy coalition through formative evaluation.* Health Education Research; 12 (2): 213-225

Webb KL, Pelletier D, Maretzki AN, Jennifer Wilkins (1998) Local food policy coalitions: evaluation issues as seen by academics, project organisers, and funders. *Agriculture and Human Values* 15: 65-75.

### *Information sources*

The Penrith Food Project website: www.penrithcity.nsw.gov.au/PCC/PenrithFoodProject/.

Webb K, Hawe P, Noort M (2001) Collaborative intersectoral approaches to nutrition in a community on the urban fringe. *Health Education and Behaviour* 28 (3):306-19.

Food Policy Committee. *Triennial Report,* 1994-1997. Penrith City Council, PO Box 60, Penrith 2751. New South Wales. Australia 1998. (Complete list of goals and achievements).

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|---|---|
| **Intervention heading** | Generic intervention strategies |
| **Sub-heading** | Food policy coalitions or councils |
| **Example** | The Hartford Food System (HFS) |
| **Location and year** | USA, Hartford, Connecticut – 1978 – current |
| **Objective** | To create an equitable and sustainable food system to address the underlying causes of hunger and poor nutrition facing lower-income and elderly residents. |

### *Summary of initiative*

The Hartford Food System (HFS) is a non-profit organisation that seeks funding and implements projects to improve the food security of lower income residents. The HFS differs from many other food policy coalitions in that it is a private organisation, rather than a committee of the city council. The HFS is governed by a board of directors including representatives from businesses, government policy makers, farmers, chefs, churches, and community organisations. In addition to local activities, the HFS also has state and national involvement in advocacy for policy reform.

The HFS adopts a collaborative approach to implement projects that tackle production and distribution of food; education and training; and public policy. Current projects include the following:

1. 'Holcomb Farm Community Supported Agriculture', a city owned farm, which offers reduced price shares and a voice in farm management to low income residents, and provides approximately 1500 kilos of produce annually.
2. Project 'Farm Fresh Start', aimed at increasing the purchase of locally grown produce by Hartford's schools. A network of over 60 'farmer's markets' have been established in the city and surrounds, selling locally grown vegetables and fruits to residents.
3. 'Grocery Order and Delivery Service' for elderly people in low income areas.
4. 'Farmer's market Coupon Programs', where low income families can exchange coupons for fresh produce at local farmer's markets. A quarterly newsletter is disseminated internationally.
5. The HFS system also initiated the establishment of a Food Policy Commission of the City Council, which works at the level of policy development and reform.

The activities of the HFS are reported in annual reports, which can be ordered from the email address below.

### *Information sources*

The Hartford Food System website provides information about the organisation, programs, events and partnerships: www.hartfordfood.org/index.html.

Email for copies of annual reports and further information: info@hartfordfood.org.

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|---|---|
| **Intervention heading** | Generic intervention strategies |
| **Sub-heading** | Research, Monitoring and Evaluation |
| **Example** | *NSW Child Health Survey* |
| **Location and year** | Australia – 2001 |
| **Objective** | To collect data on the health and wellbeing of children 0-12 years in NSW, to inform the planning, implementation and evaluation of health services and programs by the NSW Department of Health |

### *Summary of initiative*

The Epidemiology and Surveillance Branch of the NSW Department of Health conducts a program of health surveys across NSW to monitor progress in improving population health, and to inform future policy and planning. The *NSW Child Health Survey* was a computer assisted telephone interview survey conducted in 2001. The sample population comprised children 0-12 years from households selected by list-assisted random digit dialling across the state, with a target of 500 children from each of the 17 Area Health Services in NSW. The response rate was 84% (n = 9425).

The *Child Health Survey* was the first in NSW to focus on children under 12 years. Questions examined the determinants of health; health behaviours (including several questions about the food security of children and families); health status; and use of health services. The food security questions included in the survey examined the following: whether in the last 12 months there were any times that the family had run out of food and couldn't afford to buy more, and how parents or carers coped with feeding their children if they ran out of food. Several questions examined the impact of running out of food on the child's diet, ie how often children had to eat the same thing several days in a row, how often the family were not able to provide balanced meals, and how often children had to go hungry.

A report of the survey findings was released in Sept 2002 and is published on NSW Health website: www.health.nsw.gov.au/public-health/epi/research.html.

### *Information source*

NSW Department of Health (2002), *New South Wales Child Health Survey* 2001, Public Health Division, NSW Health, Sydney.

**Intervention heading** Generic intervention strategies

**Sub-heading** Research, Monitoring and Evaluation

**Example** *National Health Survey (& National Nutrition Survey)*

**Location and year** Australia – 2001 – fifth *NHS Survey* since 1977 (NNS 1995)

**Objectives** *NHS* – to collect national benchmark data on a wide range of health issues.

*NNS* – to collect food and nutrition data to inform policy, dietary guidelines, and revision of recommended dietary intakes (RDIs).

### *Summary of initiative*

The *National Health Survey (NHS)* is conducted by the Australian Bureau of Statistics. The most recent *NHS* was conducted in 2001, which was the fifth survey since 1977. Prior to 2001, the *NHS* was conducted in 1995, at which time it was combined with an additional *National Nutrition Survey (NNS).* There are plans to conduct future *National Health Surveys* every three years. No date has been set for the next *National Nutrition Survey.*

The 2001 NHS was conducted in 17,800 private dwellings across Australia. People in hospitals, nursing homes, boarding houses etc were not included. In each household, information was collected on one adult over 18 yrs, every child aged 0-6 yrs, and one child aged 7-17 yrs. The survey addressed indicators of: health status of the Australian population; use of health services; and health related behaviours and characteristics.

The *1995 National Nutrition Survey (NNS)* was also based on face to face interviews that collected food and nutrition data on persons aged two years and over (n = 13,858; n = 2882 in NSW). The survey was divided into three sections: food intake-24 hour recall; physical measurements; and food habits and attitudes, food security, and food frequency questions.

The 2001 *NHS*, and the 1995 *NNS*, included the following question on food security (asked of people 16 years or older): 'In the last 12 months, were there any times that you ran out of food and you couldn't afford to buy more?' Secondary data analysis has been done on data from the 1995 NHS/NNS to examine the relationship between food security (answered 'yes' to the above question) and socioeconomic status, food intake, BMI and demographics. The surveys do not provide data on how often or why people ran out of food and money, and did not examine other causes of food insecurity.

### *Further information (ABS & secondary data analysis)*

Australian Bureau of Statistics: www.abs.gov.au/ (go to themes, people, health, *2001 National Health Survey)*.

Rutishauser IHE, Webb K, Abraham B, Allsopp R. Evaluation of short questions from the *1995 National Nutrition Survey*, Commonwealth Department of Health and Aged Care, Canberra, 2001.

Marks GC, Rutishauser IHE, Webb K, Picton P. *Key Food and Nutrition Data for Australia 1990-1999*, Commonwealth Department of Health and Aged Care, Canberra, 2001.www.sph.uq.edu.au/NUTRITION/monitoring/publications.htm

Wood B, Wattanapenpaiboon, N, Ross K, Kouris-Blazos A. *1995 National Nutrition Survey.* All persons 16 years of age and over grouped by Food Security. Healthy Eating Healthy Living program, Monash University & VicHealth 2002. www.healthyeatingclub.com/bookstore/reports.htm.

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|---|---|
| **Intervention heading** | Generic intervention strategies |
| **Sub-heading** | Research, monitoring and evaluation |
| **Example** | *The Healthy Food Access Basket Survey* |
| **Location and year** | Queensland, Australia – 1998 and 2000 |
| **Objective** | Monitor the price, availability and variety of basic food items, and healthy food choices in urban, rural and remote areas of Queensland. |

### *Summary of initiative*

The *Healthy Food Access Basket (HFAB)* is a cross sectional survey conducted by the Queensland Health Department to examine the costs and availability of basic food items, healthy food choices, tobacco, and take-away food items in urban, rural and remote areas of Queensland. The *HFAB* was piloted in 1997, and the first statewide survey was conducted in 1998. The *HFAB Survey* was repeated in 2000.

In 2000, the *HFAB* was conducted at 92 stores within locations with varying degrees of accessibility and remoteness (scored by the ARIA index) across Queensland. The findings confirmed that people in rural and remote areas do pay more for basic healthy food than those living in urban and metropolitan areas. The price of fruit and vegetables was less affected by remoteness and accessibility than other food groups; with the price of meat and meat alternatives and dairy food groups being the most affected. The cost of tobacco and take-away food items was less affected than other items. Also basic food items and healthy food choices were less readily available in the more rural and remote stores.

The overall *HFAB* cost was on average 31% higher in the very remote locations than in stores in the highly accessible ARIA category (in one location the HFAB was 56% higher). Approximately 12% of the HFAB food items were not available for purchase in very remote areas, and 9% were not available in remote stores. Significant discrepancies in the cost of basic food items have also been found in similar surveys conducted in Tasmania, Western Australia, South Australia and Northern Territory.

### *Information source*

Public Health Services, Queensland Health. *The 2000 Healthy Food Access Basket (HFAB) Survey Full Report.* Queensland Health, 2001

Related example: *Eat Well SA*; Food Supply in Rural South Australia: A Survey on Food Cost, Quality and Variety. May 2000.

### *Contact*

Amanda Lee, Queensland Health, Public Health Services. Tel. (07) 3234 1049. Email. Amanda_Lee@health.qld.gov.au.

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|---|---|
| **Intervention heading** | Generic intervention strategies |
| **Sub-heading** | Research, Monitoring and Evaluation |
| **Example** | *NSW Older People's Health Survey* |
| **Location and year** | NSW, Australia – 1999 |
| **Objective** | To provide local and statewide data on the health and wellbeing of older people in NSW, to inform the planning, implementation and evaluation of NSW Department of Health policies, health services, and public health programs |

### *Summary of initiative*

The *NSW Older People's Health Survey* was a telephone survey carried out in late 1999 and early 2000 by the Epidemiology and Surveillance Branch of the NSW Department of Health. The survey collected data on the self-reported health and wellbeing of older people aged 65 years and over from randomly selected households across all 17 Area Health Services in NSW (n = 9418; 8881 direct interviews & 537 interviews by proxy).

The survey questions addressed the following: home and social environment; self-rated health status; health service use; use of community services; roles as carers; nutrition and food security; physical activity; physical functioning; mental health and well-being; and oral health. Of those surveyed, 1.9% of older people answered 'yes' to the question on food security, which asked whether in the last 12 months there were there any times that respondents ran out of food and couldn't afford to buy more. The finding was commensurable with that among people aged 45 years and over in the *1995 National Nutrition Survey;* but lower than the average rate (5%) in the general (all ages) population.

The survey did not examine why, or how often, people ran out of food and couldn't afford to buy more. It also did not assess the relationship between running out of food and other important determinants of food insecurity among older people, such as disability, limited mobility and other physical or mental health problems that hinder people's ability to acquire and prepare a healthy diet. Thus the 1.9% of older people who ran out of food as a result of running out of money is likely to underestimate overall food insecurity among older people in NSW.

### *Information source*

NSW Department of Health (2000) New South Wales Older Person's Health Survey 1999. *NSW Public Health Bulletin Vol 11*, number S2.

NSW Department of Health website: www.health.nsw.gov.au. Link: www.health.nsw.gov.au/public-health/ophs99/ophs1999.pdf

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| **Intervention heading** | Generic intervention strategies |
| **Sub-heading** | Research, monitoring and evaluation |
| **Example** | *NZ Food: NZ People; National Nutrition Survey* |
| **Location and year** | New Zealand – 1997 |
| **Objective** | To provide data on food and nutrient intakes, dietary habits, and nutrition-related clinical measures of adult New Zealanders. |

### *Summary of initiative*

The *New Zealand 1997 National Nutrition Survey* collected data on food and nutrient intakes, dietary habits, and nutrition-related clinical measures from 4636 people aged 15 years and over. The data were collected in the homes of respondents and included the following: a 24-hour diet recall; a self-administered qualitative food frequency questionnaire that estimated the frequency of intake of foods over the preceding 12 months and included questions on food preparation habits; questions on dietary supplements, barriers to dietary change and self assessment of household food security; physical measurements including weight, height, three circumferences, two skinfolds and elbow breadth; blood pressure; and a blood sample for determining of cholesterol and iron status.

The section on household food security comprehensively assessed the relationship between food intake and the availability of money, the degree to which people were able to afford a healthy diet, and the impact of not having enough money to buy food. Survey participants were asked to respond to eight statements on behalf of themselves (if they lived alone) or their households, which are listed below (options to reply were ‘often’; ‘sometimes’; ‘never’; ‘don’t know’):

| | |
|---|---|
| I/We can afford to eat properly | (sometimes = 13%) |
| Food runs out in my/our household due to lack of money<br>(refers to basics like bread and potatoes etc not treats or special foods) | (sometimes = 12%; often = 2%) |
| I/We eat less because of lack of money | (sometimes or often = 12-14%) |
| The variety of foods I am (we are) able to eat is limited by a lack of money | (sometimes or often = 27%) |
| I/We rely on others to provide food and/or money for food, for my/our household,<br>when I don’t have enough money | (sometimes or often = 7%) |
| I/we make use of special food grants or food banks when<br>I/we do not have enough money for food | (sometimes = 4%) |
| I feel stressed because of not having enough money for food | (sometimes or often = 12%) |
| I feel stressed because I can’t provide the food I want for social occasions | (sometimes or often = 13%) |

### *Information source*

Russell DG, Parnell WR, Wilson NC et al (1999) *NZ Food: NZ People; Key results of the 1997 National Nutrition Survey.* Ministry of Health: Wellington NZ. The report is available in pdf format on the New Zealand ministry of health website: www.moh.govt.nz.

**Intervention heading** Generic intervention strategies

**Sub-heading** Research, Monitoring and evaluation

**Example** *Online Community Food Security Assessment Toolkit*

**Location and year** US Department of Agriculture website, published 2002

**Objective** To provide a standardised set of measurement tools for assessing various indicators of food security.

### *Summary of initiative*

The toolkit was developed following a community food security assessment conference sponsored by the US Department of Agriculture, Economic Research Service in 1999. The toolkit provides standardised measurement tools to assess indicators of community food security. It was developed for use by community based non-profit organisations, business groups, local government officials, private citizens, and community planners.

The key components of the toolkit include a general guide to community assessment; a data collection and analysis guide; and standardised instruments for developing profiles on the following:

- community socio-economic and demographic characteristics
- community food resources
- household food security
- food resource accessibility
- food availability and affordability, and
- community food production resources.

The Appendices provide tips for developing tables of data, guides and materials for conducting focus groups, and instruments and materials for conducting food store surveys.

### *Information sources*

US Department of Agriculture, Economic Research Services website: http://www.ers.usda.gov. Link to document: www.ers.usda.gov/publications/efan02013/efan02013.pdf.

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|---|---|
| **Intervention heading** | Generic intervention strategies |
| **Sub-heading** | Research, Monitoring and Evaluation |
| **Example** | *The Queensland Food System: Description of Distribution, Marketing and Access* |
| **Location and year** | Queensland – 1997 |
| **Objectives** | To describe the food supply system in remote and rural Queensland and identify factors influencing the distribution of food; to identify areas of intervention that can be achieved by working collaboratively. |

### *Summary of initiative*

The study of the Queensland food system provides an example of methods that can be used to describe and further monitor the various types of food systems in communities in Australia. In Queensland, it filled a gap in data about food distribution and access, particularly in rural and remote areas, and helped to systematically identify the problems that needed to be tackled. Rural and remote areas were particularly worthy of study because incomes are usually lower, unemployment higher, food costs may be higher, and residents are reliant on few food outlets and thus have little choice about where they obtain their food.

Stage one of the project described the food system in rural and remote Queensland, which included retailers, distributors and wholesalers. Stage two measured the price, range, quality and access to foods across rural and remote Queensland. Information was collected through various activities, including field trips to over 50 Queensland communities and consultations with over 250 community leaders and food industry representatives, as well as community store surveys.

The study found there were five different types of supply systems in rural and remote areas: towns with a national supermarket chain store, rural towns with a few stores in competition, remote towns with a few stores in competition, towns with one store, indigenous communities (usually with one store, takeaway shop, and a liquor outlet).

Some key factors influencing price, availability, etc of food supplies in these communities include: whether or not on major highways, level of community support for the business, level of store turnover relative to overheads and costs, use of profits from sales of profitable products to subsidise the stocking of other products, level of good business management practices, government support and promotion for food business in small turnover areas.

Several conclusions were drawn from the study, among them was the awareness that prices are higher and availability of foods consistent with dietary guidelines is lower the further away from metropolitan centres, and successful food businesses are the foundation to a secure community food supply. The success of the business depends in part on good community relations, and business skills of the store operators.

### *Information sources*

Bob Hughes, Liz Gear, Nutrition Program, University of Queensland.

Hughes R, Beck K, Ambrosini G, Marks G (1997) *The Queensland Food system: Description of Distribution, Marketing and Access.* Nutrition Program, University of Queensland, Technical Report Series 97-01.

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|---|---|
| **Intervention heading** | Generic Intervention Strategies |
| **Sub-heading** | Research, Monitoring and Evaluation |
| **Example** | *Food and Nutrition in NSW*; a catalogue of data |
| **Location and year** | NSW – 1994 |
| **Objectives** | Compile a range of available data about the food and nutrition system in NSW |

### *Summary of initiative*

As part of the NSW Better Health Program, The NSW Department of Health funded the Community Nutrition Unit, Department of Public Health, University of Sydney (Westmead Hospital campus) to compile existing data relevant to NSW on the food and nutrition system. The aim was to foster a 'systems' approach to conceptualising public health nutrition issues and programs; identify points for potential intervention to improve the food supply and thus to improve population nutrition; provide benchmarks for monitoring over time the state of the food and nutrition system and the NSW food supply. The interest in food supply interventions arose from the need to support consumers, particularly the disadvantaged, to make healthier choices by making them more available, priced competitively and promoting them.

The components of the food and nutrition system used to compile information were as follows: agriculture (food production), food processing, food retailing and food service, food habits (consumption), nutrient intakes, diet-related diseases and conditions (Heywood and Lund Adams, 1990). Data sources comprised the NSW component of many national surveys (including the *1983 and 1985 National Dietary Surveys*), NSW health surveys and data collections regarding food and health, and special studies relating to particular areas. The quality of surveys was assessed and only those with reasonable sampling and measurement techniques were included.

The largest growth in the food sector was among take away food outlets and convenience stores. Supermarkets were taking over the retailing of vegetables and fruit. The quality of food service in institutions is not well monitored, but where it has been assessed there is substantial scope for improving the quality. Food prices were found to be higher in low income communities, and in newer housing estates that rely on smaller markets/convenience stores for more of their food shopping. Updates of the catalogue are currently (2002) being produced by the NSW Centre for Public Health Nutrition, focusing on specific issues: a series entitled *'The state of food and nutrition in NSW'*. Many gaps were identified in the available data, particularly on the location and viability of horticultural production near urban areas; the development and success of new product formulations consistent with the dietary guidelines; sales of nutritionally preferable products relative to standard ones in many types of food outlets; the extent and distribution of food assistance relative to geographic location of low income communities; food habits and nutrient intakes of vulnerable, low income groups in NSW.

### *Further information*

(NSW CPHN) Limited copies are still available from the NSW Health Dept, Better Health Centre, or contact NSW CPHN for specific information.

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| **Intervention heading** | Generic intervention strategies |
| **Sub-heading** | Advocacy |
| **Example** | *Sustain: The alliance for better food and farming* |
| **Location and year** | UK – 1999-current |
| **Objective** | Advocate for food and agricultural policies and practices that enhance the health and welfare of people and animals; improve the working and living environment; and promote equity and enrich society and culture. |

### *Summary of initiative*

Sustain represents over 100 national public interest organisations working at international, national, regional and local level. It encourages organisations to work together to increase their strength and effectiveness by: attending regular meetings on general or specific food and agriculture policy issues; gathering support for their own work and convening special meetings on issues of particular concern.

The alliance is a registered charity, governed by its membership, which meets three times a year. The membership elects a council of trustees who meet quarterly to guide the work of the alliance, subject to approval by the members. This allows Sustain to act as a common voice. The following is a list of current projects coordinated by Sustain:

- Agriculture and Trade – enhances knowledge, promotes informed discussions and facilitates policy advocacy for reform of UK agriculture, environment and rural policy, the European Common Agricultural Policy and international trade rules.
- Food Advertising – aims to ensure that food advertising encourages healthy eating, particularly among children, to help improve the health of future generations.
- Food Poverty – works with a range of local, national and international organisations to reduce inequalities in health. Provides information and support through a database, events and a range of publications; it has also developed a community mapping tool.
- Grab 5! – promotes fruit and vegetable consumption amongst 7-11 year olds, with a focus on low income families.
- London Food Link – aims to help producers, consumers and retailers make a positive choice for sustainable, local food.
- Food Chain Project – includes food miles; local food economies; and public procurement.
- CityHarvest – encourages people living in urban and peri-urban environments to ‘grow their own’ food and develop sustainable food economies.

### *Information source*

Website of Sustain www.sustainweb.org/

*Digest* quarterly magazine

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|---|---|
| **Intervention heading** | Interventions to improve the food supply |
| **Sub-heading** | Advocacy |
| **Example** | School meals initiative of the Child Poverty Action Group |
| **Location and year** | Scotland, UK – current |
| **Objectives** | Advocacy and other initiatives to achieve the following:<br>1. Provision of universally free school meals for all children in primary, secondary and special needs local authority managed schools in Scotland<br>2. Establish legal nutritional standards for school meals<br>3. Increase take-up of school meals |

### *Summary of initiative*

Child Poverty Action Group (CPAG) promotes action for the relief, directly or indirectly, of poverty among children by working to improve benefits and policies for low income families.

A key CPAG initiative involves campaigning to extend the entitlement of free school meals to all children. CPAG formed 'The Free School Meals Working Group' to spearhead the campaign and to provide advice and information to supporters and potential collaborators. To date, 19 organisations are taking part in the campaign for free school meals.

A School Meals bill has been submitted to the Scottish parliament, which is to be debated in early June 2002. The identified rationale for the bill is that school meals in Scotland are only free to children whose parents receive income support, and the uptake of these meals is very low due to the attached stigma. Universal entitlement to school meals would remove the stigma and could make a positive impact on the health of all Scottish children.

### *Information sources*

Child Poverty Action Group website: http://www.cpag.org.uk/scotland/.

The School Meals Bill, some explanatory notes, and a policy memorandum are available on the website in pdf format: www.cpag.org.uk/scotland/school_meals_bill.htm.

Also available on the website is an overview of the current school meals service that presents a case for nutritional standards in for school meals and universal provision: *'Even the Taties Have Batter'.* This booklet also explains the proposed school meals bill, and the parliamentary process that is required before such a bill can be passed.
http:// www.cpag.org.uk/campaigns/school_meals.htm.

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|---|---|
| **Intervention heading** | Generic intervention strategies |
| **Sub-heading** | Advocacy |
| **Example** | Hidden Hunger, a nationally distributed report from the New Zealand Network Against Food Poverty |
| **Location and year** | New Zealand – 1999 |
| **Objectives** | To get food security on policy and practice agendas:<br>1. To enlist support for food insecure families in New Zealand by producing an evidence based report; and disseminating it to professional groups and social service agencies who provide food and social support for families.<br>2. To influence public opinion in the lead up to the national elections.<br>3. To change attitudes and beliefs about food poverty and to identify actions that could be taken to support low income families. |

### *Summary of initiative*

The New Zealand Network Against Food Poverty (NZNAFP) is an informal network of government and non-government health and social agencies whose mission is 'to ensure all New Zealanders have access at all times to the food needed for a healthy life'. Hidden Hunger was one strategy employed to highlight the issue of food poverty and campaign for people in policy making roles to make it a priority on their agenda.

*Hidden Hunger* is an evidence-based report compiling the results of the *National Nutrition Survey 1997* (NNS97) together with other available literature on food poverty in New Zealand. It attempts to dispel common myths people have about food poverty, such as food insecure families are poor budgeters who make foolish and careless decisions when purchasing food. The report's key message is that people are not getting enough healthy food to eat due to a lack of income; and that solutions targeted at individuals (such as education and skills training) will not on their own make much difference to their diet.

Other activities of the NZNAFP include national newsletters; action on beneficiary entitlements; and advocacy to councils and service groups.

### *Evaluation*

To date 14,000 copies of the report have been printed and two-thirds have been distributed. A process evaluation was done in 2000 to assess the adequacy of distribution and reach; as well as to collect feedback on the report itself.

The impact of the report on advocacy and other activities has not been assessed, but a new political agenda has acknowledged the existence of food poverty and the prime minister relaunched the report.

### *Information source*

Permission has been obtained for the *Hidden Hunger* report to be made available on the NSW Centre for Public Health Nutrition website: www.cphn.biochem.usyd.edu.au.

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| **Intervention heading** | Generic intervention strategies |
| **Sub-heading** | Advocacy facilitation |
| **Example** | Public Issues Education (PIE) |
| **Location and year** | USA – 1914-current |
| **Objective** | Provide information that enables citizens to become more informed and effective participants in the policy-making process at the local, state and national levels. |

### *Summary of initiative*

The aim of public issues education (PIE) is to enhance society's capacity to understand and address issues of widespread concern, and thus to enable greater participation by members of the community in policy decisions that affect their lives. For example, in 2001 Maretzki, Wilkins and Tuckermanty developed a 1/2 hour made-for-television documentary called *"Our Food – Our Future: enhancing food security through local action"* which has been acquired by more than 60 US television stations. (Available for purchase – contact details below).

In the United States, public issues education programs are conducted by university based faculty of the US Department of Agriculture Cooperative Extension System (CES) in collaboration with staff from local CES offices. Topics addressed include the following:

- food, clothing, and shelter
- human development and family life
- jobs and economic development
- community capacity and leadership development
- natural resource preservation and development.

PIE is based on the premise that members of a community are the most appropriate judges of their interests, and recognizes the role of education in enabling individuals and groups to make better-informed decisions. The role of CES educators includes the following: supporting learners as they sort facts; weigh values; examine alternatives and consequences; and to make choices.

### *Information sources*

National website of Public Issues Education (PIE) www.ces.ncsu.edu/depts/agecon/PIE/.

Document by the National Public Policy Education Committee, USDA Cooperative Extension. *Increasing competence in resolving public issues*, Public Issues Education Materials Taskforce, 1994: www1.uwex.edu/ces/pubs/pdf/G3629.pdf.

*'Our Food – Our Future: enhancing food security through local action'* video and program guide are available from Cornell University. Email: resctr@cornell.edu.

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|---|---|
| **Intervention heading** | Generic intervention strategies |
| **Sub-heading** | Government subsidies and incentive schemes |
| **Example** | Western Australian Nutrition Awards |
| **Location and year** | Australia – 1997-current |
| **Objective** | The award seeks to encourage the development of healthy new products and provide marketing and promotional support for healthy food products. |

### *Summary of initiative*

The Western Australian Nutrition Awards provide public recognition to Western Australian food manufacturing companies who produce new, innovative and healthy food products. A panel of judges selects winners against a series of health, safety and quality criteria, such as consistency with the Dietary Guidelines for Australians and the Australian Food Standards Code; compliance with other safety, hygiene and food regulations; product appeal; product convenience; and cost.

Nominated foods must be produced in Western Australia and the company must demonstrate support for Foodbank WA. A call for nominations is advertised in January each year, and since the awards were introduced in 1997 the number of nominations has progressively increased. Award categories include general new food; special dietary food; catering food service; school canteen association food service; veg advantage (products that promote vegetable consumption); and technical innovation. Winning products have included bread, low-fat yoghurt, ice-cream, milk, processed meat, canned sardines, pasta meals, pizza, pies, tofu and tempeh, ostrich steaks and ready-to-eat meals.

Marketing and advertising incentives for award participants include product promotion through the health department's public awareness campaign; permission to display the WA Nutrition Award name on product labels; and an advisory service to formulate marketing claims relevant to the WA Nutrition Awards. The awards have allowed the Department of Health to foster partnerships with the food industry, with the aim of improving nutritional practices in the industry and to make a healthy diet more accessible.

### *Information source and contact*

www.public.health.wa.gov.au/PAGES/nutrition_awards.cfm.

Nutrition and Physical Activity Program, Department of Health. Tel. (08) 9222 2062.

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|---|---|
| **Intervention heading** | Generic intervention strategies |
| **Sub-heading** | Community development and grant schemes |
| **Example** | Community Food Projects Competitive Grants Program by the US Department of Agriculture |
| **Location and year** | USA – 1996-current |
| **Objective** | To provide assistance to non-profit agencies to establish multi-purpose community food projects designed to increase food security in communities. |

### *Summary of initiative*

The Community Food Projects Competitive Grants Program is a federal grants scheme administered by the Cooperative State Research, Education and Extension Service of the United States Department of Agriculture. The grants program provides one-time start-up funding to private non-profit agencies to run community food projects. Recipients must match the award in resources dollar-for-dollar.

The aim of the program is to support projects that are designed to meet the needs of low income people by enhancing their access to fresher, more nutritious food supplies; increasing self-reliance of communities in the provision of their own food; and promoting comprehensive responses to local food, farm, and nutrition issues. A diverse range of projects has been funded, including nutrition education; food policy councils; market gardening; community gardening; youth gardening; community supported agriculture; farmer's markets; gleaning; community kitchens; and farm to school programs. Awards range from $10,000-250,000, over one to three year periods.

The program was established as a result of the 1996 Federal Agriculture Improvement and Reform Act. To date $13 million has been distributed to 102 awardees, and the current allocation of funding is $2.5 million per year.

### *Information source*

The Community Food Projects Competitive Grants Program website provides a brief description of projects that have received awards since 1996, and project contact details. www.reeusda.gov/crgam/cfp/community.htm.

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|---|---|
| **Intervention heading** | Interventions to improve the food supply |
| **Sub-heading** | Food system education |
| **Example** | *From Land to Landfill: A Systems Perspective* |
| **Location and year** | The Pennsylvania State University, USA – 1996 |
| **Objective** | A high school curriculum designed to teach students about the food system. |

### *Summary of initiative*

*From Land To Landfill: A Systems Perspective* is an interdisciplinary multimedia curriculum that teaches high school children about the food system, as well as developing higher-order analytical skills. The curriculum integrates social studies, math, science, language arts, family and consumer sciences, and health and nutrition.

The curriculum is organised into four units: Overview of the Food System, Packaging, Hunger, and Sustainability of the Food System. Students are challenged with systems analysis and decision-making tasks through four 15-minute introductory videotape programs, three interactive computer programs (on one CD-ROM), and four sets of supporting lessons and extension activities:

1. Overview of the food system-this program provides a general overview of where food comes from and takes a look at production, processing, packaging and waste.
2. The packaging process-viewers see how food is packaged to prevent contamination and to lengthen shelf life. The amount of waste created by packaging is also featured.
3. Hunger and the food system-this program looks at how drought, famine and war contribute to hunger.
4. Sustainability of the food system-the last program takes a look at the decline in farm production in America and the future of food processing.

### *Information sources*

Copies of the *From Land To Landfill: A Systems Perspective curriculum* (US $95.95) can be ordered from Penn State Nutrition Center http://nutrition.hhdev.psu.edu/undergrad/nutrcenter/NtrCntrForm.html.

Achterberg C. Getty V (1998) From land to landfill: a systems perspective: use of an organising theme in an interdisciplinary multimedia curriculum. *Journal of Nutrition Education*, 30 (3): 182-03.

Matheson D (1997) From Land to landfill: A Systems Perspective (Review) in Educational Material in Review, *Journal of Nutrition Education*, Volume 29 Number 4 226-227.

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|---|---|
| **Intervention heading** | Interventions to improve food supply |
| **Sub heading** | Food production |
| **Example** | Penrith District's Open Farm Day |
| **Location and year** | Penrith, NSW – 1997-current |
| **Objectives** | Increase community awareness of, and support for, Penrith's local agriculture and to highlight the importance of local food production. |

### *Summary of initiative*

The Open Farm Day (OFD) was an initiative of the Penrith Food Project, Penrith City Council. A locally active environmental group, the Middle Nepean Hawkesbury Catchment Management Committee, collaborated in planning the first OFD. Penrith Council also collaborated with local and state tourism groups, who assumed key roles in the promotion, organisation and delivery of the OFDs each year. NSW Tourism integrated the OFD into the Winter Feast of Sydney program, organised by Tourism New South Wales.

Local farmers/food producers were approached to participate, and approximately a dozen farms opened their doors, allowing community tours to see how and where food is grown and produced. Participants included a mushroom farm, orange orchard, vegetable farm, honey farm, cow dairy, winery and a goat dairy. A tour bus operated, which made six stops on a scheduled route. Educational information was prepared by the Penrith Food Project and tour guides gave talks to groups who toured the farms.

Activities included conducted tours, on-site cooking/preparation of produce using special recipes, free tasting, seedlings to give away, and 'show bags' including educational information about local food production, and nutrition. Local publicly elected officials, project staff and a prominent Sydney nutritionist launched the event. The event received coverage in the local press, on local and Sydney radio and was included in NSW tourism promotions for tourism week.

In the first and second year, over 500 and 1000 people respectively participated in the OFD tours. It was successful at building capacity with partners, increasing awareness of the value of local agriculture, particularly with decision makers, and provided a free 'tasting' event of local produce prepared in healthy ways for families. Following the second OFD, the local council commenced a review of the value of its rural lands, with a view to considering policies to retain local agriculture.

### *Information source*

Reay L (1997) *Report on the Penrith District Open Farm Day.* Penrith City Council, PO Box 60, Penrith NSW 2751

Food Policy Committee. *Triennial Report, 1994-1997.* Penrith City Council, PO Box 60, Penrith 2751. NSW. Australia. 1998.

NSW Department of Health 2001, *Fruit and Vegetable Tool Kit.* State Health Publication no. (HP)00/74 ISBN 07347 6.

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|---|---|
| **Intervention heading** | Interventions to improve the food supply |
| **Sub-heading** | Food system education |
| **Example** | Food systems professional education (FSPE) of W.K. Kellogg Foundation |
| **Location and year** | America – 1994-current |
| **Objective** | Nurture and harvest new ideas, networks, and practices, designed to sustain and improve our food system during the coming century. |

### *Summary of initiative*

FSPE is an initiative of the WK Kellogg Foundation's Food Systems and Rural Development Program. FSPE seeks to 'catalyse significant, positive changes in university-based education programs throughout the United States to better prepare food systems professionals to be responsive to the dynamic and complex food systems issues of the 21st century.'

Projects funded include those designed to: encourage land grant universities to involve community stakeholders and meet their changing needs, as well as continue to make institutional changes necessary to serve effectively throughout the 21st century; bring about significant positive change in university-based education.

The FSPE is a two-phase effort directed toward building the initial capacity for institutional change. Phase One funded 12 institutional models: to participate in collaborative visioning exercises, to identify education models, and to prepare professionals who will be able to respond to the complex food systems issues of the next century.

Phase Two involves the transformation of the food systems education program, based on the outcomes of the visioning process. In all, the 12 models include 26 land-grant colleges and universities in 22 states, as well as dozens of community colleges, and state colleges and universities.

### *Information sources*

Website of WK Kellogg Foundation www.fspe.org/.

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|---|---|
| **Intervention heading** | Interventions to improve food supply |
| **Sub-heading** | Food production |
| **Example** | Farmers Markets and the Farmers' Market Nutrition Program |
| **Location and year** | Connecticut, USA – 1987-current |
| **Objective** | Increasing food security for families and individuals, while supporting local agriculture. |

### *Summary of initiative*

A Farmers' market in Connecticut, USA was set up initially by the Hartfood Food System (HFS) in 1979 (the HFS is summarised as an Example of food policy coalitions-interventions). There are now around 65 farmers' markets in the state of Connecticut, with over 200 farmers participating. Farmers markets provide an opportunity for farmers to sell their crops directly to the public, and a convenient one-stop shopping facility for consumers to purchase fresh, high-quality produce and other farm specialty items.

The Farmers' Market Nutrition Program (FMNP) was introduced by the Hartford Food System in 1987. As part of the FMNP, the Connecticut Department of Agriculture provides food coupons that are distributed to nutritionally disadvantaged women and children (via the US Dept of Agriculture Women, Infants and Children (WIC) program) and to senior citizens (via housing sites and congregate meal programs). The FMNP food coupons are redeemable for fresh produce at authorised farmers' markets; and participating farmers are reimbursed for the value of the vouchers at the state financial institution. In 1999, the Department of Agriculture distributed $600 000 worth of coupons to WIC recipients, and $45,000 worth of coupons to 3,000 low income elderly in Greater Hartford.

FMNP has become a national program. Its aims are: to raise self-esteem among low income families who are able to shop for their own food rather than relying on food banks; to increase their access to fresh, locally grown produce; to increase their likelihood of buying such produce on their own once they can afford it; and to develop a new market for the goods of local farmers.

The HFS administered the National Association of Farmers' Market Nutrition Programs between 1990 and 1996, and has played a key role in the creation of similar programs across the country. Currently, 34 states and four native American tribes have a FMNP, and over $15 million is spent on the program nationally.

### *Information sources*

The Hartford Food System website: go to 'farmers markets' & 'food coupon program', www.hartfordfood.org/programs/index.html.

The state of Connecticut Dept of Agriculture website: www.state.ct.us/doag/pubs/fm/farmktpg.htm.

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|---|---|
| **Intervention heading** | Interventions to improve food supply |
| **Sub-heading** | Food production |
| **Example** | Regional Infrastucture for Sustaining Agriculture & Pennsylvania Association for Sustainable Agriculture |
| **Location and year** | Pennsylvania, USA – 1993-1999 |
| **Objectives** | Preserve the agricultural base of Pennsylvania's economy and provide a working example of sustaining agriculture for other communities where farming is also endangered (RISA).<br><br>Promote profitable farms which produce healthy food while respecting the natural environment (PASA). |

### *Summary of initiatives*

Regional Infrastructure for Sustaining Agriculture project (RISA) was established in 1993 with support from the WK Kellogg Foundation. RISA was established to develop links between farmers, consumers, policymakers, marketers and educators in order to study, create, and promote a sustainable food-production system in Pennsylvania. The objectives of RISA were to:

1. Increase understanding of, barriers to, and incentives for sustaining agriculture
2. Develop a Regional Infrastructure for Sustaining Agriculture (RISA)
3. Document, evaluate and disseminate a RISA model in order to move toward the widespread adoption of sustainable agricultural practices.

The Pennsylvania Association for Sustainable Agriculture (PASA) is a state-wide non-profit, sustainable farming organisation that aims to improve the sustainability of the food system by strengthening ties between farmers and between farmers and consumers. PASA is a member of RISA. PASA strategies include:

1. Increasing the number of farms that produce food, and the economic viability of existing farms, through farm-based educational programs; networks to build markets for local and sustainably produced food; educational programs for new farmers; annual conferences and a quarterly newsletter; and disseminating information/education on farmer-developed value-added products.
2. Generating healthy food for urban and rural communities.
3. Increasing consumer awareness about healthy and safe food. Activities include advocacy, education, and networking with hunger and food advocacy groups.
4. Creating thriving natural environments through educational programs about sustainable agricultural practices; building coalitions with environmental organisations; and promoting policies that support a positive relationship between agriculture and the natural environment.

PASA projects have included farm-based education programs such as 'Open Farm Days'; community farm initiatives; and producer-only farmer's markets.

### *Information sources*

PASA website: www.pasafarming.org/

The approach adopted by RISA is summarised on the Consortium for Sustainable Agriculture Research and Education website: www.csare.org/programs/multidim/risa.htm. RISA activities were also described in the online 1996 Spring/Summer edition of *Penn State Agriculture* www.aginfo.psu.edu/psa/ss96/food3.html.

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|---|---|
| **Intervention heading** | Interventions to improve food supply |
| **Sub-heading** | Food production |
| **Example** | Holcomb Farm community supported agriculture project |
| **Location and year** | Connecticut, USA – current |
| **Objective** | To provide reasonably priced, high quality produce to people in the greater Hartford area; and to increase the awareness and appreciation of locally grown food. |

### *Summary of initiative*

The Holcomb Farm community supported agriculture project is a non-profit program operated by the Hartford Food System (see HFS summary). Community supported agriculture (CSA) is a community-based farm enterprise that is financially supported by individuals and groups who purchase 'shares' in the predicted produce of participating farms. In return for their shares, members receive a portion of the farm's harvest for the entire growing season, which is around 20 weeks. As 'investors', CSA members share the rewards that are provided by favourable weather conditions, as well as the risk of crop failures. By selling harvest shares before the growing season, participating farms obtain capital and a guaranteed market for their produce. CSA members also participate in making decisions about the farm's management, crop mix, and community activities. A CSA network exists throughout the United States.

CSA memberships are available to households and to community organisations that serve low income families. Members come to the farm once a week to pick up their produce, and some crops are available as 'pick-your-own.' Holcomb farm grows about 50 varieties of vegetables, herbs and fruit. Vegetables include beans, tomatoes, potatoes, peppers, squash, carrots, lettuce and other greens, onions, radishes, cabbage, and melons. The farm also grows flowers.

### *Evaluation*

In 2002, organisations will pay $1,200 for a share. Household shares will cost $400. Based on price comparisons with area supermarkets conducted in 1997, the Holcomb Farm CSA allows household members to save about 33% on their food budget, and organisational members can make savings on produce of around 80%.

### *Information source*

The Hartford Food System website www.hartfordfood.org/index.html.

Program link: www.hartfordfood.org/programs/holcomb_farm.html.

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|---|---|
| **Intervention heading** | Interventions to Improve food supply |
| **Sub-heading** | Food production, growing local fruit and vegetables |
| **Example** | The Edible School Yard (school garden) |
| **Location and year** | USA, California – 1995-current |
| **Objective** | To create and sustain an organic garden and landscape which is wholly integrated into the school curriculum and lunch program. |

### *Summary of initiative*

The Edible School Yard is a non-profit organisation that works with the Martin Luther King Middle School, Berkeley, California. In 1995 an abandoned lot next to the school was transformed into an edible schoolyard garden. In 1997 a kitchen classroom was developed with a full time cook hired as chef and kitchen teacher. All aspects of farming the garden as well as preparing, serving and eating the food are integrated into the school curriculum so children gain an 'awareness and appreciation of the transformative values of nourishment, community and stewardship of the land'. The Edible School Yard is open to visitors from other schools and organisations, individuals or small groups, and the media.

The Edible School Yard is funded by grants, sponsorships and foundations, and private contributions, and also works closely with volunteer organisations. The founders hope that the garden will serve as model to other schools and inspire students to grow their own fruit and vegetables. It is hoped that produce from the garden will eventually replace the existing school lunch program for Martin Luther King's 900 students.

The school garden is designed and maintained using ecological practices; from the way food is grown, harvested and prepared to the waste that is recycled back into ground. Work in the garden is done in teams of two to six members. At the beginning of class the students listen to a brief description of the available jobs and then borrow the appropriate tools from the tool librarian.

Sessions in the kitchen classroom are structured into a 90 minute progression involving a brief lecture/demonstration; food preparation; setting the table; sharing of food; conversation, and cleaning up. Classes are limited to 30 students at a time and 10 classes are held a week.

### *Information source*

The Edible Schoolyard website provides details of how the school garden and classroom were established, details of ongoing activities and future plans, and information about funding sources, sponsors and partners. www.edibleschoolyard.org/.

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|---|---|
| **Main heading** | Interventions to improve food supply |
| **Sub section** | Supporting local farming and agriculture |
| **Title** | *Direct Farm Marketing and Tourism Handbook* |
| **Location and year** | Arizona, United States – 1995 |
| **Objective** | Help farm operators market their products and services directly to the consumer. |

### *Summary of initiative*

Direct Farm Marketing and Tourism Handbook describes various direct marketing options available to farm operators in order to add value to agriculture products before they leave the farm. Such strategies include: pick your own orchards and farms; roadside stands, farmer's markets; and selling to restaurants. Each section consists of a brief introduction, a compilation of materials from around the United States relating to the section topic, and a list of references.

The guide to starting, operating and selling in farmer's markets includes practical information and tips covering the following topics:

1. Advantages and disadvantages associated with farmer's markets
2. Initial organisation: number of vendors and sellers, location and facilities
3. Operating a farmer's market: management and leadership, hours of operation, products, containers, weights and measures, stall fees, clean up, local regulations, sales tax collection and insurance
4. Advertising and promotion
5. Selling in a farmer's market: using the market effectively; pricing and merchandising strategies; suggestions for signs, display.

### *Information source*

Electronic copy of guide: www.ag.arizona.edu/arec/pubs/dmkt/.

Hard copy of guide: Cost $25.00 ($US).

### *Contact*

Email. tronstad@ag.arizona.edu.

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|---|---|
| **Intervention heading** | Interventions to improve food supply |
| **Sub-heading** | Food production: local farming |
| **Example** | American Farmland Trust initiatives |
| **Location and year** | USA – 1980-current |
| **Objective** | American Farmland Trust is dedicated to stopping the loss of productive farmland; and promoting farming practices that lead to a healthy environment. |

### *Summary of initiatives*

American Farmland Trust (AFT) is a nationwide non-profit organisation dedicated to protecting agricultural resources in the United States. They have 50,000 members and 90 staff, and publish the American Farmland magazine four times a year. Their activities include:

1. Empowering communities – AFT identifies and maps productive farmland threatened by urban development and works with communities to plan and effect farmland conservation.
2. Developing fair policies – AFT forms national and state-level partnerships with farm bureaus and environmentalists to develop policies and tools to promote land conservation.
3. Engaging the public – AFT uses all forms of media to build an awareness of the need to protect agricultural resources.
4. Working with landowners – AFT works with landowners on land conservation projects to protect local farmland and develop sustainable farming practices.

### *Information source*

The AFT website is a rich source of information about the organisation and its activities, including updates on policy initiatives, forthcoming conferences, publications such as fact sheets and position papers, and details of current partnerships. www.farmland.org.

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|---|---|
| **Intervention heading** | Interventions to improve food supply |
| **Sub-heading** | Food processing |
| **Example** | Natures Gold™ |
| **Location and year** | Goodman Fielder Milling & Baking Group, Australia – 1995 |
| **Objective** | To develop a product whereby the nutritious components of wheat (aleurone cell layers) are available for absorption by the human body. |

### *Summary of initiative*

An Australian flour milling company, Goodman Fielder Pty Ltd, has developed a unique milling process that enables the isolation of aleurone, a nutrient-dense fraction of wheat grain known as Nature's Gold.

Nature's Gold is significantly richer in nutrients and dietary fibre, protein, vitamins and minerals compared with wholemeal flour. It is also a very high natural source of easily absorbable folate. It has been used to enrich products such as bread (VitaGold), pasta and cereal.

### *Information sources*

Stenvert NL (1995) New high fibre bread-Farrer's Gold. *Food Australia*; 47 (10): 462-463.

Website of Goodman Fielder: www.goodmanfielder.com.au.

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|---|---|
| **Intervention heading** | Interventions to improve food supply |
| **Sub-heading** | Food retail, rural and remote schemes |
| **Example** | Arnhem Land Progress Association (ALPA) stores & food and nutrition policy |
| **Location and year** | Australia, Northern Territory – 1972-current |
| **Objective** | To improve the health and nutrition of Aboriginal communities through a corporate food and nutrition policy, whilst maintaining the commercial viability of the ALPA retail stores. |

### *Summary of initiative*

The Arnhem Land Progress Association (ALPA) is a retail cooperative that is owned and run by five Aboriginal communities in the Northern Territory, and headed by an Aboriginal chairman and board of directors. It runs five stores, and provides support to a further six stores in way of management, accounting and training. The ALPA is the third largest retailer in the Northern Territory, and uses its purchasing power in a sustained effort to improve the availability, quality and cost of fresh food for people living in remote Aboriginal communities.

The ALPA has a food and nutrition policy which led to initiatives such as:

1. Appointing a 'good food' person in each store, who works with external groups such as the local council and departments of health and education to promote nutrition education in stores.
2. Introducing a 100% subsidy on fruit and vegetable freight that is funded through an increase in the price of cigarettes.

The ALPA has also developed a staff training centre (established in 1980) with a specialised curriculum for training Aboriginal store workers. The curriculum is now a nationally accredited TAFE certificate course.

### *Evaluation*

The implementation and impact of the food and nutrition policy was evaluated in five remote Aboriginal community retail stores in 1993.

### *Information sources*

Lee AJ, Hobson V, Katarski L.(1996) Review of the nutrition policy of the Arnhem Land Progress Association. Menzies School of Health Research, Darwin. *Aust NZ J Publ Health 20:538-544.*

McMillan SJ (1991). Food and nutrition policy issues in remote aboriginal communities: lessons from Arnhem Land. *Australian Journal of Public Health.* 15 4: 281-5.

### *Contact*

Richard Frampton, Marketing Manager: richardframpton@alpa.asn.au.

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|---|---|
| **Intervention heading** | Interventions to improve the food supply |
| **Sub-heading** | Food retail outlets |
| **Example** | Mai Wiru food policy |
| **Location and year** | South Australia – 2002 |
| **Objective** | To improve the health and wellbeing of Aboriginal people living on the Anangu Pitjantjatjara lands by ensuring continuous access to nutritious and affordable food and essential health items. |

### *Summary of initiative*

Mai Wiru (healthy foods) is a regional policy for remote Aboriginal community stores on the Anangu Pitjantjatjara lands (AP) in South Australia. The policy was developed through a participatory process, in which all communities on the AP lands were represented on a central steering committee under the auspices of Nganampa Health Council, in conjunction with Pitjantjatjara Yankunytjatjara Women's Council.

The Mai Wiru policy has a health focus and a legislative basis for enforcement. The policy and its associated regulations cover the following aspects of store operations: food security, food affordability and food availability; food safety and hygiene; nutrition awareness and health promotion; employment and training; fair trading; management and accountability; infrastructure; monitoring and evaluation; and public display of this policy.

The policy aims to formalise the role of the community store by standardising management practices and shifting the overall control of stores to a regional level. The policy applies to all public food outlets; including community stores, takeaway food outlets, food prepared in programs such as aged care and disability. The policy is currently being implemented.

### *Information source*

*Mai Wiru Regional Stores Policy* and associated regulations for the Anangu Pitjantjatjara Lands, Nganampa Health Council, 2002.

### *Contact*

Stephan Rainow, UPK Public Health Officer. Tel. (08) 8952 5300. Email. stephan@alice.nganampahealth.com.au.

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|---|---|
| **Intervention heading** | Interventions to improve the food supply |
| **Sub-heading** | Food retail outlets |
| **Example** | National League of Cities and Food Marketing Institute Neighbourhood Partnership Awards Program |
| **Location & year** | USA – 1995-current |
| **Objective** | To encourage and promote supermarket industry initiatives that revitalise neighbourhoods through public-private partnerships and community collaboration. |

### *Summary of initiative*

The US National League of Cities (NLC) collaborated with the Food Marketing Institute (FMI) to establish the Neighbourhood Partnership Award Program. This program seeks to recognise and promote public-private partnerships between supermarkets and local governments, which strengthen the economic and social fabric of local neighbourhoods.

To qualify for an award, programs must demonstrate a positive impact in one of the following areas: community programs, health-oriented/nutrition programs, hunger-related programs and youth development programs.

Winners of the 2001 awards included:

1. A Mustard Seed Market & Café that gives away more than 50,000 free seedlings each year to schools; youth organisations; and the public, as part of a their commitment to environmental education, community service and youth education.
2. Tidyman's (supermarket) for creating Heart Month, which was designed to provide consumers with information about developing a healthier lifestyle and preventing heart disease. The initiative included free nutrition information and meal planning booklets; in-store demonstrations; question and answer sessions with a dietician; a half-hour television program; and a special event featuring a nutrition and cooking expert. Through the media exposure, special events and free information, this program was estimated to reach almost four million people.

### *Information sources*

Website of Food Marketing Institute www.fmi.org/.

Link to Neighbourhood Partnership Award page www.fmi.org/community/neighborhood.htm.

### *Resources available from FMI*

Supermarket Initiatives in Underserved Communities (Free of charge): A report detailing over 100 supermarket industry education partnerships, employment programs and training opportunities. Including the recommendations of FMI's Urban Initiatives Task Force.

*Urban Supermarkets* ($US25.00) – A booklet that profiles urban supermarket projects and the key issues affecting urban development.

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|---|---|
| **Intervention heading** | Interventions to improve food supply |
| **Sub-heading** | Food retail outlets |
| **Example** | Hartford grocery delivery service |
| **Location and year** | Connecticut, USA – 1985-current |
| **Objective** | To provide a free service to deliver groceries and food to elderly and disabled residents. |

### *Summary of initiative*

Hartford grocery delivery service is a program of the Hartford Food System (see HFS summary). The program is a free service that delivers groceries and food to the homes of disadvantaged elderly residents who are disabled or ill. The aim is to assist elderly residents to remain living at home and retain their independence; and to avoid their reliance on expensive shopping services so that they can spend their limited budgets on good quality, reasonably priced food. The price of groceries delivered using this service is less expensive than corner stores or some of the local small grocers that offer in-home deliveries. The service is provided to around 100 homebound seniors who live in or near poverty in Bloomfield, Hartford, New Britain, West Hartford and Wethersfield. Over 1,200 separate deliveries were made in the year 2000.

The grocery delivery service is mainly funded by The North Central Area Agency on Aging. Orders for food delivery are made by phone using a catalogue from local supermarkets, and deliveries to each area are made once a week on a scheduled weekday. A minimum grocery order of $25.00 is required, but there is no maximum order.

### *Information source*

Hartford Food System website: www.hartfordfood.org/index.html.

Program link:: www.hartfordfood.org/programs/grocery_delivery.html.

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|---|---|
| **Intervention heading** | Interventions to improve the food supply |
| **Sub-heading** | Prepared food outlets |
| **Example** | The ‘Real Meal’ Hotel Award Scheme |
| **Location and year** | Victoria, Australia – 1992-1995 |
| **Objective** | Improve the nutritional quality of food that is served in hotels as over-the-counter meals. |

### *Summary of initiative*

The Victorian ‘Real Meal’ Hotel Award Scheme was managed by Deakin University’s Food and Nutrition Program and funded by the Commonwealth Department of Health and Family Services. The Scheme was also supported by the Australian Hotels Association, the Pork Corporation, the Victorian Dairy Industry, and Goodman Fielder.

The ‘Real Meal’ Scheme offered publicity and awards to participating hotels which improved the nutritional status of their counter meals by reducing their fat content (especially saturated fat) sugar and salt; increasing fibre content and the variety of food served; and promoting low-joule non-alcoholic drinks.

The Scheme targeted hotel management and catering staff, and hotel customers/consumers. Participating hotels had to meet 21 criteria to be eligible for the ‘Real Meal’ awards, which covered issues related to food hygiene and handling; responsible alcohol service; and attendance at applied nutrition courses. In 1995, 64 hotels had participated in the scheme and 33 had received awards, which were given for one year then reviewed.

### *Information source*

The ‘Real Meal’ Hotel Awards Scheme is described in a 1998 report from Commonwealth Department of Health and Family Services on its food and nutrition policy: *‘Implementation phase-the first three years’*. This report is available online: www.health.gov.au/pubhlth/publicat/document/fnp.pdf.

**Main heading** Interventions to improve food supply

**Sub section** Prepared food outlets, institutional food services

**Title** Start Right Eat Right

**Location and year** Western Australia – 1998

**Objective** Increase access to, and availability of, healthy food choices consistent with the dietary guidelines for children and adolescents in long day care centres.

### *Summary of initiative*

Start Right Eat Right is an award scheme that recognises long day care centres that provide safe and nutritious food to children, in line with government policy and regulations. Specifically it awards those centres, which provide at least 50% of the recommended dietary Intakes for children, exhibit good food hygiene and create a supportive and enjoyable eating environment for children.

The scheme involves:

- Nutrition training – the centre cook and coordinator are required to complete the accredited Food Service Planning for Childcare course either on-line or face to face.
- FoodSafe component – staff are trained in food hygiene. FoodSafe practices are implemented in the centre and standards checked by environmental health officers.
- Supportive eating environments – requires that the centre develops a food and nutrition policy, that all eating is supervised, children learn about food in a positive way and staff sit and share food with children.

An award certificate is presented for display and is valid for 12 months, at which time the centre is reviewed. As an incentive businesses are offered publicity in local and major newspapers. The award was developed as part of the Cent$ible Food Service Project, Curtin University, funded by Healthway and is administered by the Lady Gowrie Centre.

The number of centres that received the award increased from 42 at one year to 75 at two years. 50 centres had not applied for the award at one year and 58 at two years. The scheme is included as a checklist item in the WA State Government Family and Children's Service publication for parents on how to choose a child care centre. An online version of the nutrition training has been developed and piloted.

### *Information source*

Pollard C, Lewis J, Miller M. Start Right-Eat Right Award Scheme: Implementing Food and Nutrition Policy in Child Care Centres. *Health Education and Behavior*, Vol. 28 (3): 320-330 (June 2001).

### *Contact*

The Gowrie (WA) Inc. Tel. (08) 9450 5433.

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|---|---|
| **Intervention heading** | Interventions to improve the food supply |
| **Sub-heading** | Food aid and subsidised meals |
| **Example** | Foodbank Australia |
| **Location and year** | Australia – current |
| **Objective** | To seek and facilitate the flow of donated food and other grocery products from national organisations to member Foodbanks. |

### *Summary of initiative*

Foodbank Australia Limited is a not-for-profit, non-denominational, whole-of-community organisation that is the peak body for Foodbanking in Australia.

Foodbank Australia seeks donations of unsaleable or surplus food, including fresh fruit and vegetables. Foodbank Australia distributes food donations through state Foodbanks (NSW, Victoria, Queensland, South Australia and Western Australia) to welfare agencies that have facilities to prepare meals and provide food relief for the poor and hungry; for example, St Vincent de Paul, the Salvation Army, City Missions and Meals-on-Wheels.

In 1997, the Australian Food and Grocery Council, the peak body for the Australian food and grocery industry, entered into a formal alliance with Foodbank Australia. The aim of this alliance was to recognise Foodbank Australia's contribution to the needy and recommend that the Australian Food and Grocery Council members identify Foodbank Australia and its member Foodbanks as their preferred option for disposing of unsaleable products. Many major food and grocery companies have also entered into individual contractual agreements to supply Foodbank with their surplus products.

Foodbank helps to feed over 18,000 people per day-over 6.5 million meals each year. It encourages and receives food donations from over 500 food and grocery companies, distributing over 5 million kilos of food each year to around 1,500 accredited agencies throughout Australia.

### *Information sources*

Website of Foodbank Australia: www.foodbank.com.au/.

Website of Foodbank NSW: www.foodbanknsw.org.au/.

**Intervention heading** Interventions to improve the food supply

**Sub-heading** Food aid and subsidised meals

**Example** Food-Share Australia

**Location and year** Australia, NSW – current

**Objective** Provide wholesome, nutritious, good quality food each month at a low cost to persons in needy circumstances living on, or below, the poverty line.

### *Summary of initiative*

Food-Share Australia is a non-denominational, self-help, community development program that operates through a network of host sites throughout the greater Sydney metropolitan area.

Participants in Food-Share pay a monthly fee of $15 and complete two hours of voluntary service in return for a food package valued in excess of $30 (additional packages can be purchased on the same basis). Voluntary work may be done with Meals on Wheels, neighbour aid, a local church group, charity, school, scouting group, surf life saving club or volunteer fire brigade. Participants may also help out a neighbour with shopping or child minding.

Food-Share employs the services of a nutritionist who oversees nutritional aspects of the program, and conducts a cooking program that is funded through a three year grant by the Commonwealth Department of Health and Aged Services under the National Child Nutrition Program. The State Government, through the Premier's Department, has supported the program by providing a warehouse in Alexandria. The State Government also provided some funding through the Department of Community Service and the NSW Department of Health.

The program has just been extended to the Illawarra Region (Wollongong to Ulladulla), and in late 2002 work will be undertaken to establish the program in the NSW North Coast (Coffs Harbour/Lismore) and the ACT.

### *Information sources*

Website of Food-Share Australia: www.foodshare.com.au/.

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|---|---|
| **Intervention heading** | Interventions to improve the food supply |
| **Sub-heading** | Food aid and subsidised meals |
| **Example** | The Exodus Foundation |
| **Location and year** | Australia – 1986-current |
| **Objective** | To assist homeless and abandoned youth, and others in need. |

### *Summary of initiative*

The Exodus Foundation is based at Ashfield in Sydney, and was founded in 1986 by the Reverend Bill Crews, Minister of the Ashfield Uniting Church.

Exodus Foundation initiatives include:

1. Loaves and Fishes Restaurant, which has been operating from Ashfield Scout Hall since 1989. It is open between 11.30am and 1.00pm, six days a week, and serves free healthy, nutritious and generous meals to around 350 guests (at an average cost of $4.05 per meal).
2. Food parcels of non-perishable goods, to supplement restaurant meals. The foundation distributes up to three tonnes of food per week (at an average cost of $2.38 per food parcel).
3. Financial assistance for those experiencing difficulties (means tested).

To provide these services, the Exodus Foundation employs a full time cook and an assistant, a volunteer and logistics coordinator, a driver, and a storeman. Revenues for these services are raised primarily through donations of time, money and goods. In 1999-2000, the running cost was $237 063.

The services are used by people from all over Sydney, as well people who travel long distances from areas such as Newcastle and Wollongong. The Exodus website provides some descriptive statistics of their clients.

### *Information source*

The Exodus Foundation website includes information about the organisation, its services and upcoming events.
The foundation also produces a quarterly newsletter. www.exodusfoundation.net/about/about_exodus.htm.

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|---|---|
| **Intervention heading** | Interventions to improve food supply |
| **Sub-heading** | Food aid and subsidised meals |
| **Example** | Food and Nutrition Service, US Department of Agriculture |
| **Location and year** | USA – 1969-current |
| **Objective** | To ensure access to nutritious, healthful diets for all Americans. |

### *Summary of initiative*

The US Department of Agriculture Food and Nutrition Service (FNS) 'increases food security and reduces hunger in partnership with cooperating organisations by providing children and needy families access to food, a healthful diet, and nutrition education in a manner that supports American agriculture and inspires public confidence'.

The FNS currently runs the following food and nutrition programs:

1. *The Food Stamp Program – www.fns.usda.gov/fsp/*
   The food stamp program provides to low income people either paper coupons, or electronic benefits on debit cards, to buy food in authorised retail food stores. A combined Food Stamps and Nutrition Education Program is also available to those States that match Federal funding dollar for dollar.
2. *Child Nutrition – www.fns.usda.gov/cnd/*
   The child nutrition program provides support for children 'to eat to learn and learn to eat' with nutritious school meals (National School Lunch Program, School Breakfast Program) and provides nutrition assistance for day care, after school, and summer programs.
3. *Team Nutrition – www.fns.usda.gov/tn/*
   The team nutrition program provides schools with nutrition education materials for children and families and technical assistance for school nutrition service directors. State agency partners of the FNS provide training and technical assistance to support these programs in local schools.
4. *Women, Infants & Children (WIC) Program/Farmers' Market – www.fns.usda.gov/wic/*
   The WIC program aims to improve the health of women, infants, and children by providing supplemental foods, nutrition and breastfeeding education, and access to health services. Access to fresh produce is also provided through the Farmers' Market Nutrition Program.
5. *Food Distribution – www.fns.usda.gov/fdd/*
   The food distribution program strengthens the nutrition safety net through commodity distribution and other nutrition assistance to low income families, emergency feeding programs, Indian Reservations, and the elderly.

### *Information sources*

The FNS and its subsidiary programs are described in detail on the comprehensive US Department of Agriculture, Food and Nutrition Service website, and the associated program links identified above: www.fns.usda.gov/fncs/.

See also: Kennedy E (1999) Public policy in nutrition: the US nutrition safety net – past present and future. *Food Policy* 24: 311-324.

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|---|---|
| **Intervention heading** | Interventions to Improve Access to Food |
| **Sub-heading** | Integrated services and referral systems |
| **Example** | *Putting Families First in NSW*; an initiative of the NSW Government |
| **Location and year** | NSW – 1999-2003 |
| **Objective** | Increase the effectiveness of early intervention and prevention services in supporting families to raise healthy, well adjusted children. |

### *Summary of initiative*

*Families First* (FF) is a coordinated cross government strategy sponsored by the NSW Government and overseen by the Cabinet Office. It is an $82 million interagency initiative being rolled out over four to five years, beginning April 1999. The program involves extension of existing services as well as the development of new services based on current evidence and best practice.

The Department of Community Services (main program administrator), NSW Health (Department and Area Health Services), Department of Ageing and Disability, Department of Education and Training and the Department of Housing are implementing FF. There are no specific FF services, rather services that are implemented in a coordinated interagency approach, including home visiting, parent education programs, Schools as Community Centre (SCC), supported playgroups, Family Centres etc.

The FF services are targeted at parents and carers during antenatal and postnatal periods, and up until children reach eight years of age. The services help parents to solve problems early and avoid future crises. Specific strategies have been designed for vulnerable groups.

Nutrition initiatives can link into the FF at various levels, either at upstream strategic level; or during the planning and implementation of community development programs at the local level; or via the integration of existing AHS programs into a larger FF service, such as a breastfeeding program.

Evaluations of some of the interventions/services have been done.

### *Information sources*

The NSW Government's Parenting website www.parenting.nsw.gov.au.

Includes listing of programs in each AHS and links to similar initiatives overseas: Sure Start UK, Ontario's Children – Ontario's Future, Strengthening Families-New Zealand, Building Blocks-Western Australia.

### *Contact*

NSW Department of Health contacts:
Caroline Wraith and Claire Corbett, Primary Health Care Branch. Email. Claire Corbett ccorb@doh.health.nsw.gov.au.

In Area Health Services, there are FF project leaders reporting to Cabinet Office:
Dianne Hudson, Families First Program Manager. Email. hudsond@mail.cabinet.nsw.gov.au.
NSW Parliament Cabinet Office. Tel. (02) 9228 5598.

**Intervention heading** Interventions to improve access to food

**Sub-heading** Integrated services and referral systems

**Example** Arizona Comprehensive Nutrition Action Program

**Location and year** Arizona, USA – 1970-1976 for initial development, pilot implementation, evaluation, and statewide dissemination. Program still operates in association with WIC.

**Objective** Improve nutritional status of disadvantaged children and families through integrating well managed and innovative nutrition services into existing health services and food assistance programs.

### *Summary of initiative*

Funded initially as a pilot project by the US Center for Disease Control, the Arizona Comprehensive Nutrition Action program was designed for integration into existing primary health care services and/or food assistance programs that serve the disadvantaged: well child clinics, family planning clinics, and WIC voucher distribution centers.

Four aspects or 'sub-systems' of nutrition services were developed as the basis for the program:

1. A new type of nutrition para-professional: trained community nutrition workers (CNW) (indigenous to their communities) to deliver the nutrition services (2-4 below) under the supervision of a public health nutritionist.
2. Screening/assessment of clients for specific nutrition-related problems to identify those at nutritional risk, particularly anaemia and poor growth in the under fives.
3. A problem-oriented and well managed referral system (including the exchange of client forms for documenting problems and actions) to community agencies and services (such as food assistance, welfare benefits, and employment re-skilling) that would enhance/complement nutritional intervention.
4. Nutrition intervention and monitoring, including home visits to families with identified problems for education and referral; routine follow-up to support change and identify further need for education or referral; and to re-assess family diet and nutritional status.

Built-in process evaluation demonstrated high reach and quality of services: several thousand children from low income families each year were screened for nutrition problems by community nutrition workers (quality control evaluation showed accuracy in desktop haemoglobin and other anaemia assays as well as growth assessment). Outcome evaluation showed dietary improvements in over 50% of high risk families identified. The model concept of trained (indigenous) CNWs with job structure, competency standards, and professional support was well accepted by communities and has been disseminated widely in the US. Accredited training programs for CNWs have been established at community colleges in Arizona with accreditation. Mainstream funding supported dissemination of the model program.

### *Information sources*

Yanochik (Owen) A, Eichelberger C, Dandoy S (1976) The Comprehensive Nutrition Action Program in Arizona. *Journal of the American Dietetic Association.* 69: 37-43.

See also Owen A. Splett P, Owen G (1999) *Nutrition in the Community: the Art and Science of Delivering Services.* Fourth edition. Boston: McGraw-Hill.

| | |
|---|---|
| **Intervention heading** | Interventions to improve access to food |
| **Sub-heading** | Integrated services and referral systems |
| **Example** | Victorian Home and Community Care Project, Victorian Department of Human Services |
| **Location and year** | Victoria – 1996-current |
| **Objective** | Develop and test resources to support the identification and provision of nutrition assistance/referral to home-based people (served by HACC) who are nutritionally at risk. |

### *Summary of initiative*

The main aim of the project was to develop resources to enable Home and Community Care (HACC) services to identify when an adult is at nutritional risk and to solve problems by either offering appropriate and effective support, or by referring the person to a specialist who can provide expert assistance with food and nutrition difficulties.

The target group was defined as HACC service providers for HACC target groups, the home-based frail elderly client, younger adults with disability, the socioeconomically disadvantaged, as well as regional and local dietitians who can provide expert consultation and training for these workers.

The resources include:

1. Nutritional risk screening and monitoring tool.
2. Resource manual for coordinators, assessment officers, case managers, and general workers to use the screening tool, take appropriate action, and to make referrals for specialist advice.
3. Training manual, for dietitians to use in training and resourcing general workers.
4. Information booklet for frail aged clients.

Pilot evaluation of the checklist led to refinements. The project has increased access of HACC workers to appropriate tools, methods and specialist dietitians.

### *Information sources*

The Victorian Home and Community Care Project resources are available free on the following website: www.dhs.vic.gov.au/agedcare/hacc/nutrition/index.htm.

Similar resources have been developed, piloted, and introduced into services in NSW specifically for people with disabilities. Examples include the *Nutrition and Swallowing Checklist* and the *Nutrition in Practice Manual for NSW Government Disability Services* (Lyn Stewart, personal communication). *The Nutrition in Practice Manual*, including the checklist by Von Konigsmark and Stewart, can be obtained from the NSW Government Bookshop, Sydney. Tel. (02) 9743 7200.

Other relevant resources for staff operating group homes for disadvantaged or disabled people include:

- *The Food Guide*, Hunter Area Health Service. Tel. (02) 4948 7044
- *The Healthy Homes Guide*, Blue Mountains District Hospital. Tel. (02) 47894 6595
- *The Food Book* by Mathew Dick, Central Sydney AHS, Boarding House Team. Tel. (02) 9515 3367

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| **Intervention heading** | Interventions to improve access to food |
| **Sub-heading** | Income support: advocacy |
| **Example** | The Council of Social Service of New South Wales (NCOSS) activities |
| **Location and year** | Australia, NSW – 1935-current |
| **Objectives** | To be an effective voice for the interests of low income and disadvantaged people and communities:<br>1. To positively influence key government policies, business actions and community attitudes that affect disadvantaged people and communities.<br>2. To take action to advance reconciliation with indigenous people.<br>3. To support and resource the ongoing development of a high quality and effective community sector. |

### *Summary of initiative*

The Council of Social Service of New South Wales (NCOSS) is the peak organisational body for the social and community services sector, which includes charities, church groups, local councils, consumer organisations, hospitals, and aged, disability and child care services. The role of NCOSS is to provide the following functions: coordination, advocacy, policy development, leadership, and dissemination of information.

NCOSS initiatives focus on achieving social justice for all disadvantaged people; with a specific mandate for indigenous people. The aim is to provide an independent and coordinated voice on social and economic issues, agendas, policies, and reforms. Social policy areas related to food security include: consumer issues; emergency relief; employment and training; housing/homelessness; tax reform (such as GST and exemptions for food); transport; and urban and rural development. One of its key activities is to analyse state and federal budgets, and to report on the implications of budget policy for disadvantaged and low income groups. NCOSS coordinates communication on these topics between social and community service organisations; and provides a channel for consultation between its members and government organisations (policy makers and practitioners).

NCOSS is a non-profit company with an elected board, which is primarily funded (70%) through NSW Government departments such as Community Services, Health, and Ageing & Disability. Other funding is generated through membership fees, conferences, publication sales, special project work and donations. NCOSS is part of a network of State and Territory Councils of Social Service linked to the federal body, ACOSS.

### *Information source*

The NCOSS website provides access to their media releases, submissions, articles, conference papers, and an on-line order service for other publications such reports and books. Also on the website is the NCOSS strategic plan, organisational structure, and listing of social policy initiatives. www.ncoss.org.au

**Intervention heading** Interventions to improve access to food

**Sub-heading** Storage and kitchen facilities

**Example** *AP Design Guide; Building Health on the Anangu Pitjantjatjara (AP) lands*

**Location and year** Australia – 1990

**Objective** Enable community staff and councils to better manage, plan, design, construct, supervise and maintain essential health hardware resources.

### *Summary of initiative*

The *Anangu Pitjantjatjara Lands Design Guide (AP Guide)* was based on the 1987 UPK Report: *'A public and environmental health review of the AP lands*', which emphasised that housing and all community buildings should be seen as providers of the 'health hardware' essential for the people of Anangu Pitjantjatjara to live healthy lives.

The *AP Design Guide* has been developed as a reference and a checklist to give indigenous communities information about how to build houses that will lead to 'buildings for well being'. It has also been used as a basis for auditing existing housing, equipment and facilities of indigenous people living in rural and remote areas. Findings to date show that only a minority of housing and equipment is adequately designed and functioning in a way that meets basic requirements for wellbeing.

The *AP Design Guide* includes explanatory drawings and maps where appropriate. The first section-building and health-describes the contribution buildings can make to health and discusses the background and rationale for the guide's focus. The rest of the guide is designed as a checklist for all parties involved in building, including governments, agencies, builders and community members. It outlines nine simple design guides that should be offered in any new building. Items are prioritised as 1,2,3 being essential; 4,5,6 are important; 7,8,9 will help but should be considered last.

1. Washing facilities primarily for children under five years of age
2. Washing of clothes and bedding
3. Waste removal
4. Nutrition
5. Reduce crowding
6. Separation of dogs and children
7. Dust control
8. Temperature control
9. Reduce trauma (physical injury) .

### *Information sources*

www.healthinfonet.ecu.edu.au/nganampa/.

Pholeros, P. et al. (1993) *Housing for Health – Towards a Healthy Living Environment for Aboriginal Australia.* Health Habitat. Nganampa Health Council.

**Intervention heading** Interventions to improve access to food

**Sub-heading** Health education; life-skills

**Example** *The Wellness Guide*

**Location and year** USA – 1987-current

**Objective** A life-skills resource to empower people to lead healthier lives.

### *Summary of initiative*

*The Wellness Guide (Guide)* is an initiative of the Centre for Community Wellness, University of California in Berkeley, which works in partnership with community and state agencies, families and individuals to empower people to lead healthier lives, especially people in underserved communities.

The *Guide* is a user-friendly health and life-skills publication that is available on-line and in print. It includes general information on health and welfare and the requirements of daily living. The *Guide* also provides links to more than a hundred researched resources, toll free numbers, and websites for further assistance, and outlines strategies for accessing and using these services.

The *Guide* is divided into three sections:

1. Everyday life: food, housing options, transportation, money, finding a job etc.
2. Parents and children: pregnancy, birth, babies, childcare etc.
3. Staying well: emotional health, eating well, health care etc.

Information about services/links are often accompanied by stories of how people have utilised the service to live a healthier life.

### *Evaluation*

The Centre's wellness resources and programs have reached over three million Californians in every county in the state. Evaluation has indicated that the Guide has had a positive impact on knowledge, life-skills and behaviours.

### *Information source*

Centre for Community Wellness website: www.wellnessguide.org/.

Bell RA, Alcalay R (1997) The impact of the Wellness Guide/Guía on Hispanic women's well-being-related knowledge, efficacy beliefs, and behaviors: the mediating role of acculturation. *Health Education & Behavior*, 24 (3): 326-43.

Syme L (1997) C*ommunity participation, empowerment and health: development of a Wellness Guide for California. Wellness Lecture Series*. California Wellness foundation/University of California.

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| **Intervention heading** | Interventions to improve access to food |
| **Sub-heading** | Health education: food & nutrition and life skills |
| **Example** | Food Cent$ |
| **Location and year** | Western Australia – 1991 |
| **Objective** | To show low income earners a new way to allocate their food budget to obtain value for money and balance their diet. |

### *Summary of initiative*

The Food Cent$ Project (FCP) is a nutrition education package to assist people on a limited food budget to allocate their money to groups of food that make up a healthy diet. It was developed by devising a budget allocation relating to the recommended daily servings of foods from the five food groups, and the Australian Nutrition Foundation's healthy diet pyramid. The package recommends spending the most on fruit, vegetables and plain cereal foods, moderate amounts on meat and milk foods, and the least on less nutritious foods.

FCP aims to help people to: plan meals and shopping lists and improve shopping skills; use grocery dockets to guide spending; compare prices on a weight for weight basis using the Kilo-Cents Counter; shop for and prepare easy, healthy, tasty foods and keep within a budget; and develop cooking skills.

Implementation of FCP relies on local Food Cent$ advisers to run information sessions explaining how to use the shopping kit, along with practical activities such as budgeting tips, cooking demonstrations and food tastings. FCP was implemented at a state-wide level in Western Australia and has since been adopted by some parts of Queensland and Victoria. A total of 178 Western Australian dietitians and graduate nutritionists were trained to conduct Food Cent$ sessions and supermarket tours. This led to the training of at least 1000 advisers and the participation of over 10 000 individuals over a six-month period.

### *Information sources*

Foley, RM (1998) The Food Cent$ project: a practical application of behaviour change theory. *Australian Journal Nutrition and Dietetics*; 55; 33-35.

Foley RM, Pollard CM (1998) Food Cent$-implementing and evaluating a nutrition education project focusing on value for money. *Australian and New Zealand Journal of Public Health;* 22: 494-501.

Foley RM, Pollard CM, McGuiness DJ (1997) Food Cent$-achieving a balanced diet on a limited food budget. *Australian Journal Nutrition and Dietetics*; 54: 167-172.

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| **Intervention heading** | Interventions to improve food access |
| **Sub-heading** | Health education |
| **Example** | GutBusters |
| **Location and year** | Australia – 1991-July 2002 |
| **Objective** | To reduce abdominal obesity in men. |

### *Summary of initiative*

Gutbusters is a weight loss program for men, which was developed in 1991 by Garry Egger and Allan Bolton in response to the large number of men in Australia classified as overweight or obese. It was the first large-scale program in the world to use waist measurement, rather than weight, as an indication of fat loss, and was designed to reduce waist size by 1% per week.

GutBusters began at the Newcastle BHP steelworks and was funded by the NSW Department of Health.

It was innovative in its targeting of men in blue collar jobs, who had not benefited from traditional health promotion and weight loss programs. Gutbusters was promoted as a 'no gimmicks' program that aimed to fit in with, rather than drastically alter, men's lifestyles, and which did not involve giving up alcohol, dieting, or vigorous exercise. Gutbusters also ran training sessions for general practitioners and allied health professionals, who referred patients to the program and assumed a 'shared care' role.

Gutbusters finished operating in July 2002, and visitors to their website are being referred to Weight Watchers for their At Home program.

### *Evaluation*

In 2000 over 70,000 men had completed the program in Australia. GutBusters has been shown to be effective in reducing participants' waist size by at least 7%; and maintaining or increasing this reduction in 70% of men after one year.

### *Information sources*

Gutbusters website: www.gutbusters.com.au/index.html.

Egger G (2000). Intervening in men's nutrition: lessons from the GutBuster program. *Australian Journal of Nutrition and Dietetics*; 57 (1): 46-49.

Egger G & Stanton R (1998) *The GutBuster Waist Loss Guide for Men* (2nd edition). Allen and Unwin, Sydney.

Egger G, Bolton A, O'Neill M, Freeman D (1998). Effectiveness of an abdominal obesity reduction program for men only: The GutBuster Waist Loss Program. *International Journal of Obesity;* 20: 227-231.

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| **Intervention heading** | Interventions to improve access to food |
| **Sub-heading** | Health education |
| **Example** | 2 Fruit 'n' 5 Veg Every Day Campaign |
| **Location and year** | Victoria, Australia; 1992-1995 |
| **Objective** | To encourage greater consumption of fruit and vegetables in the state of Victoria. |

### *Summary of initiative*

The 2 Fruit 'n' 5 Veg Every Day (2n5) Campaign was a state-wide multi-level nutrition promotion initiative conducted between 1992 and 1995 in Victoria. The leading agency of the campaign was the Victorian Food and Nutrition Program (of Victorian Health Promotion Foundation), but the campaign was jointly funded and supported by public sector health agencies and the food industry and represented a coordinated inter-sectoral approach to the promotion of fruit and vegetables.

The campaign was modelled on a similar initiative developed and implemented by the Health Department of Western Australia in the preceding three years; and on a program from the United States (5 a day for better health). The Victorian campaign consisted of a range of communication and social marketing activities designed to promote changes in the following:

- diet related attitudes, beliefs and behaviours of individuals
- the social environment related to dietary behaviour
- characteristics of the food supply.

Promotional strategies included television, print, radio and transit advertising; point of sale promotions; sports/arts sponsorships; and public relations. The campaign targeted consumers, health and education professionals, food retailers and food service providers. The campaign targeting consumers was conducted in three phases, with each phase designed to have maximal impact on selected subgroups. The 1992 phase targeted women with children; the 1993 phase targeted adults aged 16-54; and the 1994 phase targeted men aged 18-34.

### *Evaluation*

Annual telephone surveys (post-campaign) of approximately 500 Victorians (aged 20 years and over) were conducted to examine the public awareness of the campaign; beliefs about desirable eating habits for fruit and vegetables; and self reported consumption of these foods. Observed changes in these variables tended to correlate with the level of intensity of the mass media campaign. Sustained changes require sustained promotional activities.

An important feature of the campaign evaluation was that the promotional messages were shown to have reached all sectors of the population, including people with lower levels of education, blue collar workers and people in 'less skilled' occupations.

### *Information source*

Dixon H, Borland R, Segan C, Stafford H, Sindall C (1998) Public reaction to Victoria's '2 Fruit 'n' 5 Veg Every Day' campaign and reported consumption of fruit and vegetables. *Preventive Medicine* 27 (4): 572-82.