Food Security Report: Establishing the current food security needs and issues in South Australia

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For: Department for Communities and Social Inclusion (DCSI) and SA Health
**RECOMMENDATIONS**

For many South Australians, food insecurity is a chronic issue rather than an acute problem requiring only an emergency response. The causes are complex, and the current response, largely undertaken by the charitable food sector, is failing to address the problem. Actions to improve food and nutrition insecurity, over the short (12 months-2 years) and the longer term (>2-5 years) are tabled in five areas.

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RECOMMENDATIONS IN DETAIL

1. **Capture the extent and severity of food insecurity in South Australia by implementing the USDA Household Food Security Measure:**

   The Australian policy cycle highlights that timely and specific evidence is essential for guiding effective policy, to understand the nature and extent of the problem, related issues and to guide intervention effectiveness. The single question on food security that is asked currently is not sensitive enough. The valid and reliable USDA Food Security Measure provides information to capture the extent and nature of food insecurity in the community. There are several instruments in the suite of measures comprising the USDA Household Food Security measure. We recommend the more comprehensive 18 item instrument. The scoring allows simple addition of affirmative responses to provide food security status that could be used to set a SA food security target. Although the measure has 18 questions, the first 3 questions (5 if there are children) are screening questions and most households would answer these questions only. Analysis identifies food secure, food insecure and very low food security households.

2. **Map and report on food philanthropy activities intended to reduce food insecurity in South Australia**

   There are a number of food philanthropy organisations in South Australia that attempt to redress food insecurity for South Australians. These range from large national organisations such as Foodbank, OzHarvest and SecondBite that take food donations and receive private and government funding to smaller site specific service organisations such as CommunityfoodSA and to individual organisations such as religious groups providing meals and food parcels or access to cheap food.

   However, there appears to be no repository of the knowledge about these organisations or a co-ordinated approach from government for their funding. This is not surprising as a study carried out in WA in 2015, found very little connectivity between different Not For Profit organisations and awareness of each other’s operations. Mapping and reporting on the organisations, their approaches, location, scope of operation and funding would allow government to co-ordinate the funding provided and identify efficiencies in current operations. This recommendation also supports recommendations 4,9,10,11,12.

3. **Map and report on Local Government actions in RPHPs in SA that improve food and nutrition security using LGA SA website**

   The South Australian Public Health Act 2011 gives SA Councils the mandate to tackle public health issues. Thirty two regional Public Health plans have been developed with 20 Councils planning independently and 48 councils choosing to plan regionally. There are four themes: 1. building healthy communities, 2. improving health, 3. climate change response and 4. health protection. Improving physical activity and health has a clear relationship with food and nutrition security. A consultation between NGO’s SA Health and Local Councils in August 2016 showed that local councils are keen to partner with both State Government and the Not for Profit (NFP) sector to achieve their objectives. There is a two yearly reporting cycle for these plans but a strategy to share these reports proactively would be useful and help shape future strategy.
4. Identify funding across government to community sector charitable organisations

There are many ways in which Government supports the charitable food sector to improve food security. A centralized government funding database would help to build awareness of which departments had funded which organisations for what funding. Identifying these funding mechanisms will identify redundancy and duplication and allow for a collective impact approach for evaluating this funding.

5. Engage with Community Sector stakeholders in South Australia to determine how best to undertake these recommendations.

The community consultation undertaken with NGOs and local councils around Regional Public Health Planning in August 2016 emphasized the importance of collaboration and the need for ‘collective collaborative change across the NGO sector and through all levels of government drawing from each other’s excellence and expertise”. The value of collective impact was recognized with a view that 3-4 key indicators should be used to activate change. These indicators also form the basis for evaluation and comparable impact assessment. It is unlikely that lasting change will occur without strong engagement with the community sector.

6. Set a target for improving food security within the 100 targets set for the SA Strategic plan

The South Australian Strategic Plan sets a number of targets around the social determinants of health including Targets 7-11 (affordable housing, housing stress, homelessness and vulnerable groups), Target 12 early childhood, Target 16 economic disadvantage, Targets 47-55 employment and thus income across different groups, Targets 80-82 on smoking, alcohol consumption and healthy weight and some of targets 87-93 on education. These targets all have an impact as social determinants of health but food security is not a target. Adding such a target to the Plan or amending other targets to include food security would ensure that this important factor affecting health and wellbeing becomes a focus.

7. Consider key recommendations from the forthcoming Cochrane Food Security review and the Rural Health Alliance report for application in SA

A Cochrane review: Community level interventions to improve food security in developed countries, is currently underway reviewing interventions that improve supply of food and access to food at both a community and household level. The National Rural Health Alliance together with the Rural industries Research and Development Corporation will publish a report in early 2017 that examines the evidence and policy settings relating to food security nationally, at state and territory level, and discusses the role of the NFP sector and food supply chain. Both reviews will provide evidence-based interventions that should be considered for implementation in South Australia.

8. Use Freshplace evidence-based principles to strengthen existing Foodhub interventions

The US evidence-based Freshplace model is based in a food pantry or food hub (in South Australia), on the principles of client respect and choice, fresh food, case management using motivational interviewing with reciprocal obligation around planning and goals and attendance and wrap around employment, education and training services over a specified time frame.
Members can access a client-choice pantry where they can shop with volunteers twice a month, have monthly meetings with a project manager including motivational interviewing, and receive targeted referrals to community services which includes a 6 week “Cooking Matters” class.

The results of a randomised controlled trial comparing Freshplace with a standard food pantry showed that Freshplace participants benefitted from their participation, increasing their self-sufficiency, increasing their food security and increasing their fruit and vegetable consumption in comparison with the control group. The co-location of food hubs and support services would allow the Freshplace principles to be used and contextualized to South Australian conditions.

9. **Prepare food security policy guidelines under provision 17A of the Public Health Act 2011 in collaboration with LGA.**

Provision 17A requires local government to take a broader role in promoting public health than it’s traditional food safety role. The objective “promoting healthy life” would be strengthened by providing some policy guidelines, based on evidence-based practice such as the Victorian Food for All program. (2005-2010). The evaluation report, undertaken by VicHealth, found that food security was integrated into many more council plans at the end of the 5 year period. A number of key factors that influenced how well local government affected food security in their municipality included:

1. the existence of strong local data: mapping food shops, transport to support advocacy
2. council culture, staff and a broader environment that shows leadership and support for food security policy and initiatives.

10. **Set food and nutrition compliance criteria for contracting for food procurement, provision and acceptance of food donations by NFP organisations**

Many of the food charity organisations both purchase food and rely on donations. Organisations do express concern that if they reject unhealthy food donation it may affect donations of other types of food. Providing criteria for acceptance of donations and purchase could support the NFP sector in providing healthy food to their clients.

11. **Conduct routine Statewide monitoring of food pricing and availability using a minimum food pricing data set**

Food pricing and accessibility information enables assessment of the external factors affecting food insecurity. In South Australia some academic institutions have conducted ad hoc research on the cost of healthy food across different demographic and geographic locations. Ongoing, coordinated monitoring of food costs, quality and access will assist with government planning and identifying policy options. A minimum food pricing data set should be based on recently developed tools used to price healthy and unhealthy food baskets in Australia.

12. **Establish appropriate reporting mechanisms to monitor progress on the intra-governmental response to food insecurity in South Australia**

Reporting is a key to sharing outcomes and evidence within Government. The SA Government already has reporting mechanisms around the 100 targets of the SA Strategic Plan. Reporting the response to food security would help government, at both State and Local level to see what is working well and how to extend best practice.
13. Pilot evidence based *Freshplace* as a model to effectively improve food security amongst participants

*Freshplace* has been shown to improve food security, self-sufficiency and employment outcomes for its members who join for a specified period of time. *Freshplace*, as evaluated in its original setting in Connecticut is now being replicated in other sites in Connecticut, Rhode Island and Texas. Lessons learned from the original intervention are that the one on one connection through trained coaches who undertake case management using motivational interviewing is a critical success factor, as is a culture of respect and dignity allowing client food choice. A reduced time of nine months for the intervention and the training of non-social work staff, drawn from the local community, are currently being tested.

This intervention is one of the very few interventions that have been rigorously tested through a randomized controlled trial using validated instruments to measure outcomes and have been shown to be effective in reducing food insecurity and welfare dependency. Resources are freely available to support implementation and this could provide a model for supporting and empowering those south Australians with chronic food insecurity as it approaches this problem in a holistic social determinants of health way.

14. Evaluate the effects of RPHPs on food security based on VicHealth’s 5 year evaluation of planning and intervention in local government

This recommendation links with Recommendation 17. The Food for All program in Victoria that linked food security with council plans found that an overt strategy did affect council planning. Developing an evaluation of actions as well as plans in collaboration with local government will help focus and support their initiatives in this relatively new area of responsibility for councils.

15. Encourage NGOs to up-skill staff and volunteers in food and nutrition focused food banking via credible training courses

Food banking organisations play an important role in responding to food insecurity but are limited in their capacity to improve long-term food security due to their limited distribution of healthy foods. These organisations in the NFP sector have limited resources, high demands on frontline staff and volunteers and limited nutrition training. The *Model to Drive Research-Based Policy Change: Improving the Nutritional Quality of Emergency Food* (MDRBPC) has effective and transferable training programs and materials that can being adapted, piloted and modified and made available for online delivery. The flexible participation, contemporary educational design and opportunities for interactive learning provided by platforms such as Massive Open On-line Courses (MOOCs) provides an affordable and flexible way for staff and volunteers to develop their skills and knowledge about food and nutrition security.

16. Commission a feasibility study for the establishment of social supermarkets in SA

Social supermarkets are a widespread and growing movement in Europe that provide low cost food for those on low incomes or welfare payments in a normal supermarket setting. A potential model, already existing in South Australia, is the grocery supermarket operated by Community FoodSA in Gepps Cross. There are descriptions of social supermarkets operating in Europe with positive reviews but no systematic reviews or evaluation of their effect on food security.
17. Advocate for voluntary income management for food purchase

Voluntary income management is currently being trialed in Australia and has been shown to influence food insecurity. There is strong evidence that the transfer system in Australia does reduce poverty very significantly. Before our tax transfer system 28% of Australian children would be living in poverty, but after transfers this reduces to 11%, in comparison to the situation in the US where a pre tax system produces 25% of children living in poverty that reduces to only 23% after the tax transfer system. Mexico and Brazil have cash transfer systems that are conditional on health and education actions by individuals and have found that providing conditional cash, especially to women, does make a difference to food security. Early experience in voluntary income management in South Australia have had some positive results and could be considered in a holistic and supported approach to improving food security.

18. Establish a whole of government approach to food security by partnerships with LG councils through RPHPs that identify best practice policy settings

A whole of government approach through the three tiers of government is needed for what is a “wicked problem”. The Public Health Act 2011 gives a great opportunity for a relationship between Local government and the State government. A mandate and opportunity exists now for Local government through RPHPs to exert influence over improving health through food security. Formalising these relationships as coordinated partnerships would reduce in-efficiency in interventions that could occur in silo-ed, individualised Local government plans where councils act alone.

Recommendation outside the scope of this work

Strengthen Community Foodies as advocates to support a more holistic approach to food security.

Although Community Foodies is not a food security strategy and is not evidence based we have been asked to consider it.

Funded by SA Health, the Community Foodies program aims to support disadvantaged adults and their children The goals of the program are twofold; firstly to reduce the risk of chronic disease and some cancers and secondly, to achieve and maintain a healthy weight. The program trains and uses community peer-based volunteers to provide activities that focus on four key nutrition messages in line with the Australian Dietary Guidelines and the Australian Guide to Healthy Eating. There are approximately 100 active Foodies across South Australia. This program has attracted a relatively disadvantaged cohort of community members who are well placed to support other community members and build their skills and knowledge through food based activities. An additional aim could be added to the program, namely to highlight awareness, causes and consequences of food insecurity and practical ways to manage. With this in mind, Community Foodies could take a more active role in partnering with Foodhubs / foodbanks, other food philanthropy organisations and Local government in Adelaide. The value of the peer learning approach is that both Foodies and those they work with have made significant changes to their own eating and health after the program.
EXECUTIVE SUMMARY

Food security exists when all people at all times have physical, social and economic access to sufficient, safe and nutritious food to meet dietary needs and food preferences for an active and healthy life. Food security is underpinned by a framework that includes four pillars of food security: availability, access, utilisation and stability. The effects of food insecurity are broad for health and well being from pregnancy, following childbirth and the lifelong trajectory for a child.

Food security in Australia is typically measured using a single question at population level that asks about running out of food and being unable to afford to buy more. It provides some indication of population groups that are unable to access enough food but generally measures incidence of food insecurity at household level. It is estimated to be around 5.2% nationally from 1995 data but recent evidence suggests higher prevalence of between 6 and 10%, especially if measured more carefully using validated tools such as USDA Household Food Security Survey Module (Recommendation 1). It is much higher in disadvantaged households such as those in rental accommodation, those who are unemployed and for indigenous households.

We know that poverty is at the core of food insecurity, worldwide and in Australia. There is a clear relationship between socio-economic deprivation and both life expectancy and disability free life expectancy. When people do not have enough income to pay rent or mortgages and utility bills, food insecurity can result, as this is one of the few areas in which people have discretion. South Australia, despite life expectancies of more than 80 years, has groups of people for whom food security is not a given. Around 12% of the South Australian population live in poverty and there are geographical areas where the prevalence is much higher. Healthy food is more expensive in rural and regional areas. For many families the proportion of weekly income needed to buy a healthy food basket places them in food stress. It is important for government that the cost and availability of healthy food across the State is known (Recommendation 11) and that targets are set for food security (Recommendation 6).

The response to food insecurity assumes an emergency situation and response whereas for many households food insecurity is a chronic problem.

In addition, energy dense, nutrient poor food is often widely available and cheap whereas healthier alternatives may be much more costly. Food insecurity has an effect on health from poor nutrition in utero that can have lasting effects on metabolic and cardiovascular health and the developing brain. It is associated with obesity and diabetes and mental health problems and has widespread effects on health and wellbeing with longer term costs to our health and justice system. The multi-dimensional nature of the Social Determinants of Health approach means that government needs to work collectively across multiple departments that can influence food security for South Australians (Recommendations 12, 18). This may include voluntary income management based on the trial and evaluation of place-based income management in five Australian sites including Playford and the current trial being undertaken in Ceduna (Recommendation 17).

Since the 1980’s, governments in affluent countries have assumed that food security is only an emergency situation and have mostly left the provision of emergency and now long-term food provision to charitable for-purpose food rescue and provision organisations. There is a growing culture of charitable food relief with organisation such as Foodbank, Ozharvest and Secondbite collecting donated food and redistributing it to charities, to school breakfast programs or directly to consumers with ever increasing demand.
In Australia, Foodbank distributed 33 million kg of food to 2400 charities and 1500 schools. Secondbite [http://secondbite.org](http://secondbite.org) more than 7 million kg to 1200 community food programs and OzHarvest [http://ozharvest.org](http://ozharvest.org), almost 4 million kg of fresh food to 800 charities in 2015. All three philanthropic food organisations operate in South Australia (Recommendation 2) with government funding but a coordinated view of the amount and extent of funding is unclear (Recommendation 4). Foodbank reports that they cannot meet 10% of requests for help and this is growing.

In responding to increased demand for services it will be critical to engage with community sector stakeholders in determining how best to undertake the recommendations in this report (Recommendation 5). A strong proactive and preventive response is needed.

There is little evidence about the effectiveness of targeted food relief scheme to help disadvantaged households access healthier foods. Two reviews, shown below, have reviewed policy settings at international, national, state and local government levels and will identify best practice examples from government and the NFP community sector (Recommendation 7).

1. **A Cochrane review: Community level interventions to improve food security in developed countries**, is reviewing food supply and access interventions at community and household level.

2. **The National Rural Health Alliance with the Rural industries Research and Development Corporation** will publish a report in March 2017 that examines food security evidence and policy settings nationally, at state and territory level, and discusses the role of the not-for-profit sector and food supply chain. The Alliance already recommends prioritising support of food insecure pregnant women and young children as the best early return on investment.

In addition, a policy-setting project was undertaken in South Australia that identified policy options based on opinion of stakeholders but not evidence of effectiveness. In 2012, Bastian and Coveney reported on what stakeholders regarded as realistic policy areas, as shown in Column 1. Of the 45 Bastian and Coveney recommendations the most useful 18 are identified in the report. They are recommendations that directly that influence social determinants, provide upstream rather than individual programmatic responses, and that are able to be actioned or advocated for by the HealthSA and DCSI. Column 2 contains identified intervention areas in the Cochrane and Rural Health Alliance reviews and column 3 has national and international best practice examples grouped into the Bastian and Coveney identified areas.

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Table 1: Interventions from reviews and best practice linked with policy areas
procurement                     | Income programs                      
-----------------------------|--------------------------------------
Food delivery or distribution services | Home delivered meals to older adults

International policy that supports food security and the redistribution of food include Good Samaritan Laws, fiscal incentives (tax credits) for donated food, requirements for social contracts between large supermarkets and charities around food donation, and educational approaches to reduce food waste.

Federally, the National Food Plan (2013) appears to have been abandoned. The Productivity Commission, reporting in 2010 on the NFP sector as a whole, observed a lack of timely and quality data about the impact of the sector. They recommended a common framework and sharing of information. It is not clear whether any recommendations were adopted by the Federal Government.

At a State level, food donors are not liable for problems arising from the consumption of donated food through the Civil Liabilities Amendment Act (2008). This legal framework has allowed the food rescue business to expand. However Government could improve the nutritional value of donated food by strengthening food and nutrition requirements for food donation (Recommendation 10). Building skills and knowledge around food and nutrition for staff and volunteers in food rescue organizations would also increase their capacity to advocate for healthy and nutritious food and have the confidence to decline donations of energy dense nutrient poor food (Recommendation 15).

At a Local government level the new Public Health Act 2011 provides the mandate and opportunity for Councils to improve health for their constituents through Regional Public Health Plans (Recommendation 3 and 9) with local councils keen to partner with State government and NGOs to improve health. Whilst it is appropriate that there are contextualized solutions for different local government areas, it is also an opportunity to share practice and learn from best practice examples (Recommendation 14).

International best practice for improving household and community food security was reviewed for this report. Two of the approaches are presented, one of which has a strong evidence base for effectiveness. Freshplace, centred in Hartford, Connecticut is a novel type of food pantry (foodhub) operating in a high poverty level community in Hartford, Connecticut. Freshplace has members (only 100 families at one time) who enrol in the program for between 15-18 months. It aims to help members increase their self-sufficiency, food security and opportunities for education and employment. It operates on 3 important principles:

1. **A culture of respect and customer service** that welcomes members and give clients fresh healthy food choices that can be accessed twice a month.
2. **Individualised case management** that involves developing a Freshstart plan, motivational interviewing and review once a month with integrated education, training and employment services.
3. **Wrap around programs and services** such as employment readiness, cooking classes, nutrition education lined to the Freshstart plan.

The evidence base from this program is strong and the model deserves serious attention and detailed consideration (Recommendations 8 and 13).

The Freshplace program is now being replicated in other US sites and States (www.ittakesmorethanfood.org) with modifications to the program including whether the intervention can be shortened and non-health professional staff be trained to undertake the case management without affecting outcomes.

Social supermarkets are a growing trend in Europe that appear to be providing a dignified source of healthy food for those on low income and welfare and could be investigated for South Australia (Recommendation 16).
INTRODUCTION

The Department of Communities and Social Inclusion in conjunction with SA Health commissioned a desk-top review of food insecurity in South Australia. This review was undertaken by academic experts in this field (Drs. S. Fyfe, C. Pollard from Curtin University and Dr. S. Booth from Flinders University) between August-October, 2016.

The research questions investigated in this report are:
1. What is the estimated current and anticipated, met and unmet need for access to secure and nutritious food, in South Australia?
2. What food security mechanisms are provided in South Australia in urban and regional settings (excluding remote communities which are subject to specific additional policy responses)?
3. What are the current gaps in food security responses (programs, measurement, policies) within South Australia?
4. What evidence-based models exist are appropriate to sustain or improve food security in South Australia?

Methods

In answering these research questions we have
1. Undertaken a literature review defining food security and identifying national / international evidence on best practice approaches to addressing it.
2. Conducted a desktop analysis of current food security providers, their services, location and client groups, gathering information about demand, services, future planning, issues including interactions between food rescue, food relief and nutrition.
3. Identified current policy settings that can influence food security within South Australia.

No direct contact was made between the researchers and food security providers or their suppliers, as instructed by the commissioning group. At our first meeting in Adelaide on 12 September 2016, a mapping exercise of community based food providers and Community Foodies was discussed but this activity is not within the scope of the current brief.

FOOD SECURITY

The definition and conceptualizing of a problem influences the policy response. Food security has been defined in many ways and at different levels, for example at an international, national, and household level. International level food security is closely linked to population health and economic development and is considered a measure of the country’s progress. In 1948, The Universal Declaration of Human Rights Article 25, paragraph 1, states that “Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food” (United Nations, 1948). Having adequate food to eat is a basic element of human rights.

The concept of food insecurity arose in the mid-1970s at the time of the global food crisis, with a focus on the food supply and assuring availability and price stability of basic foods at international and national levels.

The 1974 World Food Congress definition embodies this “availability at all times adequate world food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in production and prices”. In 1983, the Food and Agriculture Organization included the...
concept of **access** by vulnerable people to available food supplies, focusing attention on the balance between the demand and supply side of food security:

“Ensuring that all people at all times have both physical and economic **access** to the basic food that they need.” (FAO, 1983)

Later, in 1986, the World Bank Poverty and Hunger Report distinguished between **chronic food insecurity** (associated with problems of continuing or structural poverty and low incomes) and **transient food insecurity** (intense periods caused by natural disasters, economic collapse or conflict) by including “access of all people at all times to **enough food for an active, healthy life**”.

As well as protein energy malnutrition, the mid-1990s extended the definition to include concepts of food safety, nutrition imbalance, and socially or culturally determined food. The World Food Summit 1996 definition brings these ideas together: “**Food security, at the individual, household, national, regional and global levels [is achieved] when 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**”.

The State of Food Insecurity, in 2001, further emphasizes the social context “**Food security [is] a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life**”.

These definitions include consumption or utilisation, the demand side and issues of access by vulnerable people to food – highlighting the entitlement of individuals and households.

In 2009, the Food and Agriculture Organisation stated that “**food security exists when all people at all times have physical, social and economic access to sufficient, safe and nutritious food to meet dietary needs and food preferences for an active and healthy life**” (Food and Agriculture Organisation, 2009).

Household food security is applied at the family level focusing on individuals within households as a focus of concern. Food insecurity exists when people do not have the adequate physical, social or economic access to food. Community food security is “a condition in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance, social justice, and democratic decision-making” (Bellows and Hamm, 2002)

This paper considers the policy response to **food security** at the **household or community level** as it is at this level that people are most affected.
**THE AUSTRALIAN CONTEXT**

Food security, in a developed country such as Australia has been defined as the “ability of individuals, households and communities to acquire appropriate and nutritious food on a regular and reliable basis, and using socially acceptable means.” (Rychetnik et al., 2003).

The 2009 Council of Australian Governments (COAG) National Strategy for Food Security in Remote Indigenous Communities used this definition and stated that food security is determined by people's local 'food supply' and their capacity and resources to 'access and use that food'. Food supply refers to ‘the availability, cost, quality, variety and promotion of foods for local population groups that will meet nutritional requirements,’ and food access refers to ‘the range of physical and financial resources, supports, and knowledge, skills and preferences that people have to access and consume nutritious food.’

The Australian National Food Plan white paper described food as “a fundamental human need and an essential part of our daily lives. Food is more than sustenance vital for health and wellbeing—it has an important social, symbolic and economic role,” and described building on Australia’s “high level of food security by continuing to improve access to safe and nutritious food for those living in remote communities or struggling with disadvantage.” (DAFF, 2013).

The Victorian Health Promotion Foundation, VicHealth’s, Food Security Investment Plan 2005 - 2010 defines food security based on Community Food Security Coalition California, which incorporates hunger: “the state in which all persons obtain nutritionally adequate, culturally acceptable, safe foods regularly through local non-emergency sources'.

Food security broadens the traditional concept of hunger, embracing a systemic view of the causes of hunger and poor nutrition within a community, while identifying the changes necessary to prevent their occurrence. Food security programs confront both hunger and poverty.

**Thus, food security includes at a minimum: the ready availability of nutritionally adequate and safe foods and an assured ability to acquire acceptable foods in a socially acceptable way.**

**Measuring Food Security**

The United States Department of Agriculture (USDA) has established the following thresholds describing food security based on responses to the 18 question Household Food Security Module of their Current Population Survey :

A. **Fully food secure**: all household members had enough food at all times

B. **Marginally food secure**: the household had problems with or anxiety about getting enough food, but the quality, variety and quantity of food were not substantially reduced

C. **Low food security**: the household members reduced the quality, variety and desirability of their food intake but the quantity of food intake and normal eating patterns were not were not substantially disrupted

D. **Very Low food security**: eating patterns of one or more household members were disrupted and food intake was reduced because the household lacked money and other resources for food.

A household is said to be food insecure if it falls into the low or very low food security categories (Gundersen and Ziliak, 2014).
A slightly different categorization has been used by Burns (2004)(Burns, 2004) and indicates three levels of food insecurity.

1. **Secure**—having continual access to sufficient, safe and nutritious food
2. **Insecure but without hunger**—food is regularly consumed, but there may be intake of food with poorer nutritional quality and occasional meal skipping
3. **Insecure with hunger**—insufficient food to meet nutritional needs or to avoid hunger

Food security in Australia is typically measured using a single question at population level that asks about running out of food and being unable to afford to buy more. It provides some indication of population groups that are unable to access enough food but generally measures incidence of food insecurity at household level. The current Australian measure captures neither severity, nor temporality.

The United States has been gathering systematic data on food security for 20 years and can report on the prevalence of food insecurity, use of US Federal food security programs and expenditure. They have developed valid and reliable tools for measuring food security (United States Department of Agriculture, 2015)

**U.S. Household Food Security Survey Module** (18-items)
Although the measure has 18 questions, the first three questions (five if there are children) are screening questions and most households would answer these questions only. The scoring allows simple addition of affirmative responses to provide food security status. Analysis identifies food secure, food insecure and very low food security households. Screening keeps respondent burden to the minimum needed to get reliable data.

There are two shorter forms of the US instrument but these do NOT provide information about household food insecurity experienced by children.

**U.S. Adult Food Security Survey Module** (10 items).
Screening keeps respondent burden to the minimum needed to get reliable data. Most households in a general population survey are asked only three questions. This version of the instrument improves comparability of food security statistics between households with and without children and among households with children in different age ranges, but avoids asking questions about children's food security, which can be sensitive in some survey contexts. However a major limitation is that it does not provide specific information on food security of children.

**Short Form of the Food Security Survey Module (6 items)**
Again, screening means that food-secure households answer only three questions hence there is less respondent burden for food-secure households. The six-item scale provides a reasonably reliable substitute and estimates of food insecurity and very low food security are only minimally biased relative to those based on 18-item or 10-item modules. However, the six-item scale is less precise and somewhat less reliable than 18-item measure. It does not measure the most severe levels of food insecurity and does not ask about conditions of children in the household.

**Recommendation 1** Measure the extent and severity of food insecurity in South Australia by implementing the 18 item USDA Household Food Security Measure.
SOCIAL DETERMINANTS OF HEALTH AND FACTORS AFFECTING FOOD INSECURITY

A Social Determinants of Health (SDH) model of food security recognizes that employment and income, housing, health and social services are major factors affecting community / household food security. Income is a major determinant, as welfare dependent or low-income households need to spend considerably more on food than those on average or higher incomes (Ward et al., 2012). However for those on low incomes, housing and utilities also make up major components of household spending. Ward et al.’s (2012) study highlighted the vulnerability to multiple hardships if households were food insecure (Ward et al., 2012).

There is a clear relationship between socio-economic deprivation and both life expectancy and disability free life expectancy.

The Marmot review in 2010 (Marmot, 2010) identified social determinants associated with health and disease in England and found a social gradient operating between the lowest and highest income levels that influence health outcomes. The gradient is valid across low to high-income countries. The review offered six priority areas for policy action to improve health inequality. They are: 1) quality of experiences in the early years, 2) education and building personal and community resilience, 3) good quality employment and working conditions, 4) having sufficient income to lead a healthy life, 5) healthy environments, and 6) priority public health conditions—taking a SDH approach to tackling smoking, alcohol, and obesity. **Food insecurity is linked strongly to areas 4): having enough income for a healthy life and 6) taking a SDH approach to tackling obesity.**

Recent studies in Canada (Loopstra and Tarasuk, 2013b) the US (Gundersen and Ziliak, 2014), Europe (Loopstra and Tarasuk, 2013a) and Mexico (Vilar-Compte et al., 2015) have shown a strong relationships between income/poverty and food insecurity with people giving up services, delaying paying bills and borrowing for rent if they were food insecure compared with those who were food secure. In the US it has also been found that those who were least food secure were also the least likely to have a social support network through family or friends that would help out with cash, groceries or meals when resources were short (Gundersen and Ziliak, 2014). In the US the physical and mental health of adult caregivers, especially mothers, are strongly connected to food insecurity for children (Gundersen and Ziliak, 2014).

In Australia a high proportion of low-income families are in housing stress, where they are paying 30% or more of their disposable income on housing (Davidson and Evans, 2014). Power and gas are non-discretionary items and falling into arrears on utility bills has significant penalties both on living standards and on monetary penalties associated with re-accessing these utilities. Foodbank clients reported that they do not have enough money in the first place (44%), they have unexpected expenses or large bills (44%), or have to pay rent or the mortgage (36%) and these are the reasons that they do not have enough food (Foodbank, 2016). Women, those 50 years and older, those without children in the household and those working part time or not at all were the most likely to say that there simply isn’t enough money to meet all their commitments.
One in six Australians reported being food insecure at least once in 2014, for some it was an emergency, but for others it is a regular part of life (Foodbank, 2016). General data indicates a prevalence of food insecurity of 5% nationally for those 19 years of age or older, and much higher for those who pay rent (15.8%) or those who are unemployed (11.3%) (Marks et al., 2001). However, a recent review of evidence by the National Rural Health Alliance estimate that the national overall prevalence is closer to 6-10% (Brooke, 2016).

There are differing views about the capacity of people who face food insecurity to have effective coping strategies. Some studies have found that because physical and mental health problems are associated with food insecurity, these problems may make it more difficult for people to cope effectively (Gundersen and Ziliak, 2014). In contrast, a recent report on food insecurity in Tasmania (Vandenberg and Galvin, 2016) showed that many people living in poverty do have capacity for initiative and effort and are very effective at managing what they have, but it is simply not enough.

There are also different interpretations about food insecurity based on the socio-political model that prevails in the society. There is strong evidence that the tax transfer system in Australia does reduce poverty, especially for children, very significantly. Before our tax transfer system 28% of Australian children would be living in poverty but after our tax transfer system, that involves family payments, this reduces to 11%, in comparison to the situation in the US where a pre tax system produces 25% of children living in poverty that reduces to only 23% after the tax transfer system. However, countries such as Finland, Cyprus, Norway and the Netherlands begin with a far smaller proportion of children living in poverty (between 9% and 14%) that is essentially halved to between 4% and 6% after tax transfers to families (Marmot, 2015). Mexico and Brazil have cash transfer systems that are conditional on health and education actions by individuals and have found that providing conditional cash, especially to women, does make a difference to food security (Marmot, 2015).

In Australia, our progressive tax system is well placed to redistribute income, although the Gini index of income inequality (where 0 = perfect equality and 1 = complete inequality) shows that, despite Australian’s average disposable income being higher than that in the OECD countries, income inequality is also higher (0.334 in 2014 compared with the EU average of 0.291 and the OECD average of 0.313) (OECD, 2014). More importantly income inequality has risen, on average, continuously since the 1980s (Fletcher and Guttmann, 2013). However, Australia uses income-testing more than any other OECD nation, which allows for the greatest share of benefits to be targeted towards low income earners, compared with the OECD countries. The poorest 20 per cent of households in Australia receive 12.4 times the amount of cash benefits than the richest 20 per cent of households — the highest ratio in the OECD and about 50 per cent more than the next most targeted country, New Zealand (Fletcher and Guttmann, 2013).

Government spending on social expenditure programs such as family cash benefits, age pensions and unemployment benefits as a proportion of GDP were lower in 2013 (19.2%) than either the OECD (21.9%) or the EU (25.2%) but there is a view in government, nationally, that spending on such programs is too high and unaffordable, despite clear evidence that reducing inequality has long term health benefits and productivity benefits for the country as a whole (Marmot, 2015). There have been attempts to help those receiving social payments to manage their income on a voluntary basis.

A South Australian scoping study in 2013 found that 50% of local resident respondents in the main study areas of Ceduna, Yalata and Koonibba did have concerns that children were going hungry or not being cared for (Abbott et al., 2013). Almost 60% of respondents felt that they knew someone who could benefit from Voluntary Income Management (VIM), mainly around making money last. However there were concerns about whether VIM would make enough of a difference in the context...
of major social problems and whether it would be tailored enough to individual circumstances (Abbott et al., 2013). The Ceduna trial is ongoing but an evaluation of the Federal government Place Based Income Management program trialed in five Australian sites including Playford (City of Salisbury) shows that VIM has had a positive impact on people’s lives. Self reported improvements in being able to pay bills, and have sufficient money for housing and food were found along with some participants reporting a reduction in their stress levels connected to an overall improvement in mental health and well being (DeLoitte Access Economics, 2015). However it is very clear that voluntary income management needs to be available in a context of holistic support for recipients. The evaluation report recommended measures such as financial education, connections with housing authorities, flexible percentages for managed income and a “step down” process to allow recipients to transition off the program.

**Recommendation 16 :** Advocate for voluntary income management for food purchase.

There is also the assumption that food insecurity will be an emergency situation with policy settings and solutions generally focused on supplying emergency food, either as meals or as supplies for people to use at home. In a recent comparison of Italian and German responses to food insecurity (Baglioni et al., 2016) the point is made that more affluent societies consider their populations protected from the risk of poor nutrition. This is because of general welfare provisions that are made or a culture in which charitable organizations such as churches and secular organizations, have had an important role in caring for those in need.

Community based for-purpose organisations are commonly established when they see a need or an issue and come together to respond to it. As Margaret Mead said “Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it's the only thing that ever has.” (Mead). We see many such organisations in Australia that respond to those in need of food. However, the truth is that food insecurity has become a chronic feature of life for many people on low incomes. The responses that NFP organisations have made through the development of foodbanks and the charitable food sector, especially since the 1980s, shows this reality.

In Australia, in 2015, Foodbank distributed 33 million kg of food to 2400 charities and 1500 schools (Foodbank, 2016), other food rescue organizations such as Secondbite [http://secondbite.org](http://secondbite.org) and Ozharvest [http://ozharvest.org](http://ozharvest.org) distributed more than 7 million kg to 1200 community food programs (SecondBite, 2015) and almost 4 million kg (OzHarvest, 2015) of fresh food to 800 charities respectively.

In summary, we know that poverty is at the core of food insecurity, worldwide and in Australia. There is a clear relationship between socio-economic deprivation and both life expectancy and disability free life expectancy. When people do not have enough income to pay rent or mortgages and utility bills, food insecurity can result, as this is one of the few areas in which people have discretion. It is not an emergency situation for many, but a chronic problem. In addition, energy dense, nutrient poor food is often widely available and cheap whereas healthier alternatives may be much more costly. Since the 1980s, governments in affluent countries have assumed that food security is only an emergency situation and have left the provision of emergency and now long-term food provision to charitable NFP food rescue and distribution organisations. This is an increasing part of life for many in Australia today with organisations such as Foodbank, Ozharvest and Secondbite taking a major and increasing role.
HEALTH EFFECTS OF FOOD INSECURITY

There is a clear relationship between socio-economic deprivation and both life expectancy and disability free life expectancy. The Marmot review in 2010 identified social determinants associated with health and disease in England and found a social gradient operating between the lowest and highest income levels that influence health outcomes. The gradient is valid across low to high-income countries. The review offered six priority areas for policy action to improve health inequality: 1) quality of experiences in the early years, 2) education and building personal and community resilience, 3) good quality employment and working conditions, 4) having sufficient income to lead a healthy life, 5) healthy environments, and 6) priority public health conditions—taking a SDH approach to tackling smoking, alcohol, and obesity (Marmot, 2010).

Food insecurity is linked strongly to areas 4): having enough income for a healthy life and 6) taking a SDH approach to tackling obesity. A recently published clinical textbook on food insecurity and disease also clearly links food insecurity with obesity, diabetes and mental health problems (Hassan, 2016).

In developed countries food insecurity is associated with obesity (Martin and Ferris, 2007, Burns, 2004) (Robaina and Martin, 2013), cardiovascular disease (Ford, 2013) and diabetes (King, 2015). Being overweight or obese causes a range of chronic and serious conditions such as cardiovascular disease, type 2 diabetes and other non-communicable diseases. Overall it is estimated that obesity reduces life expectancy by between 3 and 13 years (Swanton and Frost, 2007). A recent Australian study has shown that the increase in obesity and diabetes in Australia will increase disability by 26% by 2025 compared with what would have been expected if the obesity and diabetes prevalence had not changed since 1980 (Wong et al., 2016). A recent study in the elderly has also shown that obesity did not decrease life expectancy but it did increase the years living with diabetes (Dhana et al., 2016). The Fremantle diabetes study (Davis et al., 2006) published effects of the increasing prevalence of obesity and diabetes and estimates that the number of people with type 2 diabetes in 2051 may be 3.5 times higher than in 2000 with a 3.7 fold increase in health costs. They conclude that the financial burden of treating type 2 diabetes could quadruple by 2051 unless more is done to prevent diabetes.

Food insecurity is linked strongly to areas 4): having enough income for a healthy life and 6) taking a SDH approach to tackling obesity. A recently published clinical textbook on food insecurity and disease also clearly links food insecurity with obesity, diabetes and mental health problems (Hassan, 2016).

The latest National Health Survey results shows that whilst South Australia http://www.abs.gov.au/ausstats/abs@.nsf/mf/4364.0.55.001 has one of the lower prevalence of smoking in the country at 13.1%, 72.4% of men and 58.9% of women were overweight or obese and only 45.6% of South Australians between the ages of 18 and 64 years met or exceeded the recommended levels of exercise. The implications of not improving food security and decreasing obesity are an ever-increasing burden on the health system and an increase in disability. It is also important to recognize that good nutrition protects the unborn child, babies and young children as they develop physically (Moor and Davies, 2001), physiologically (Langley-Evans, 2015) and intellectually (Martorell, 1999); a position first postulated by Professor David Barker as the Barker Hypothesis or the developmental origins of adult disease (Barker et al., 1993, de Boo and Harding, 2006).

These issues are reflected in targets for the SA Strategic Plan and data from the 2015-2016 updates.

Life expectancy, Obesity and Healthy weight in South Australia

Whilst life expectancy remains relatively stable at 84 years for women and 80 years for men, there are indicators suggesting that many people are living with chronic conditions. Since the 2012 update, the life expectancy indicator has changed from health-adjusted life expectancy (HALE) to

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life expectancy so it is difficult to compare pre-2012 with post-2012 expectancy proportions.

The proportion of South Australian adults who are a healthy weight has declined from 39.4% in 2009 (the baseline year) to 36.8% in 2015. In 2015, 43.3% of females and 30.2% of males were a healthy weight, continuing the trend of females having higher levels of healthy weight. This gap of 13.1% is the largest since 2012. However, the proportion of South Australian children who are a healthy weight has increased to 76.1% in 2015 from 75.2% in 2009. This is the highest rate of healthy weight among children since 2010, which coincides with the Obesity Prevention and Lifestyle Program and the Healthy Kid’s Menu Taskforce. Despite this improvement, South Australia has the worst rates of obesity in Australia; the scale of the challenge requires widespread, coordinated and sustained action across government, the non-government and private sector. SA Health continues to work to identify, implement and monitor best practice strategies to arrest this trend. http://saplan.org.au/targets/82-healthy-weight

Housing stress and affordable housing
Twenty nine percent of low-income households experienced housing stress in 2009-2010, an increase over 2007-2008 figures. After a rise in affordable housing for those on low incomes of 53.9% of homes sold or built in 2009/10 this dropped to 37.6% in 2010/11. As a major social determinant of health, housing will affect food security and the reduction in affordable housing stock and the proportion of low-income families in housing stress (paying more than 30% of their income) suggests that food insecurity is a growing problem for South Australians on low incomes.

Recommendation 6: Set a Food and Nutrition Security Target in the 100 targets set for the SA Strategic Plan.

THE ESTIMATED CURRENT AND ANTICIPATED, MET AND UNMET NEED FOR ACCESS TO SECURE AND NUTRITIOUS FOOD IN SOUTH AUSTRALIA –

The ACOSS 2015 report on Inequality in Australia (Australian Council of Social Services, 2015) shows that, in 2012, Adelaide had the highest proportion of people in the lowest 20% of income than any other capital city and has a greater proportion of people in the lowest quintile of income of all states except Tasmania.

Poverty is measured in different ways – 50% of median income is used by ACOSS (Davidson and Evans, 2014)– and converts to a disposable income of less than $400 per week for a single adult. that takes housing costs into account. In 2011/ 2012, 14% or 2.5 million Australians lived below the poverty line. In South Australia the risk of poverty was 11.7%, with 156,889 people on less than 50% of median income, slightly lower overall than the Australia average (Davidson and Evans, 2014).

In 2009 up to 3.5% of SA households went without food in a 12 month period (South Australian Council of Social Service, 2014). In 2013, South Australians paid about 17% of their income on food ($191 per week) but those in the lowest income quintile paid 23% of their income. In 2014, for a single adult a “healthy food basket” (HFB) cost $69.74 (27% of the weekly Newstart Allowance) and for a family of four it cost $222.43(South Australian Council of Social Service, 2014).
For families on welfare payments, the situation was even worse (Ward et al., 2013). Excluding elderly pensioners, the percentage of income that would need to be spent on the HFB for the typical family, single-parent family, and single adult was 33.0%, 29.1%, and 28.6%, respectively. Similar results have been found in previous studies conducted in Adelaide in 2007 (Tsang et al., 2007) and rural South Australia in 2012 (Ward et al., 2012). These findings suggest that in order to purchase a HFB, both low-income families and families on welfare payments would need to spend significantly more than the 17% average expenditure on food by Australian households. This is particularly the case as it has been the lowest quintile of income earners that have seen the lowest growth in income over the same period, thus affecting low income households more than higher income households (Davidson and Evans, 2014).

Ward et al. (2012) have identified through their study on affordability and differences in costs of a HFB, that “food stress” occurs when food costs account for more than 25% of household income. Data collected in South Australia through the South Australian Monitoring and Surveillance System (SAMSS) between 2002 and 2007 from the indicated that the proportion of those reporting being food insecure is at 7%, higher than the national average of 5.2% (Foley et al., 2010) although a recent review estimates that it is closer to 6-10% (Brooke, 2016). The SAMSS survey also indicates that food insecurity is much higher for marginalized and at-risk groups such as the unemployed (11.3%), rental households (15.8%) and aboriginal households (Foley et al., 2010), especially in remote indigenous communities where food prices are around 40% higher than in Adelaide (South Australian Council of Social Service, 2014). For families in low income brackets, it would cost up to 30% of their disposable income to purchase the healthy basket compared with 10% for higher income households (Ward et al., 2013).

However it is important to recognise that the SAMSS data are collected through a Computer Assisted Telephone Interview (CATI) survey that has not accessed those without landline phones and may have been unable to access those without who are living in facilities such as caravan parks. The SAMSS estimate was also determined from response to a single question that does not capture the severity or temporality of food insecurity. Thus the SAMSS estimate may under estimate the true prevalence of household insecurity.

The Foodbank Hunger Report (2016) in which the South Australian Foodbank reported providing food for 4.98% of the South Australian population and being unable to provide for another 0.42%. (Foodbank, 2016), also suggests an underestimate as they have identified 5.41% of the South Australian population who requested help from Foodbank. It does not include those who didn’t request help but were food insecure.

Recommendation 11: Conduct routine monitoring Statewide of food pricing and availability

In summary, in South Australia we know that at least 7% of the population is food insecure at some times and this is much greater for the unemployed, marginalized groups and generally those in the lower income brackets. Around 12% of the South Australian population live in poverty and there are geographical areas where the prevalence is much higher. For many families the proportion of weekly income needed to buy a healthy food basket places them in food stress. Foodbank (2016) indicates that they are unable to meet about 10% of requests for help and this is growing.
FOOD PROVISION/DELIVERY

Much of the current response to food insecurity is linked to food rescue of surplus food and its redistribution to those in need through charitable food organisations. Surplus food is edible and safe food that, that for various reasons, at any stage of the supply chain is not sold or consumed” (Baglioni et al., 2016)

FOOD PHILANTHROPY

There is a growing culture of charitable food relief, taking a role that government has regarded as unneeded due to the relatively progressive tax system and welfare net in Australia, and providing a way that the corporate food sector shows itself to be a good corporate citizen. Foodbanks and food rescue organisations have become big business. As Friel and colleagues (Friel et al., 2015) put it “focusing on direct action to help people eat more healthily misses the heart of the problem: the unequal distribution of factors that support the opportunity to eat a healthy diet” (pii84).

FOODBANKS

The term food bank can refer to two different organizations: one that redistributes rescued foods to smaller charities that then provide the food to clients or a service that provides grocery items directly to clients.

A systematic review of the second type of food bank and their role in addressing food security was undertaken in 2016 (Bazerghi et al., 2016). Thirty five publications were reviewed and overall the review found that, whilst the food banks played an important role in providing immediate solutions for food deprivation, they were limited in their capacity to improve overall food security. The reason for this limitation was found to be related to the type of food donations that occur, and the lack of nutrient dense foods such as dairy, vegetables and fruits. However a recent comparison between traditional food bank provision of food and community based food interventions in Canada (Roncarolo et al., 2016) found that the food banks did lower food insecurity and improved self-reported physical and mental health of recipients. However studies have also found that food banks are often used as a last resort and only when absolutely necessary(McPherson, 2006) with many users feeling shame, stigma, fear of being judged and loss of dignity when accessing food through a food bank. There is also evidence that the poor quality, readily available, filling and processed foods that were available to users of a food bank in the UK exacerbated their pre-existing health conditions (Garthwaite et al., 2015). A recent study in Western Australia mapped the charitable food organisations in the Perth CBD. They undertook face-to face-interviews with direct service agencies and food rescue organisations (Campbell and Macintosh, 2015). They also surveyed and interviewed 101 users of those food relief services and found that the average length of time recipients had used the service was around seven years with the mode being 10 years. Over 80% of those surveyed had used food relief services for over three years with 50% more than 10 years (Pollard, 2016). For these recipients food insecurity is a chronic issue.

Foodbanks have been called “Successful failures” as the number of foodbanks increase they are unable to meet demand but do not improve food security in the longer term (Ronson and Caraher, 2016).
FOOD RESCUE ORGANISATIONS OPERATING IN SOUTH AUSTRALIA

In Australia, in 2015, Foodbank distributed 33 million kg of food to 2400 charities and 1500 schools (Foodbank, 2016). Other food rescue organizations such as Secondbite http://secondbite.org distributed more than 7 million kg to and 1200 community food programs (SecondBite, 2015) and Ozharvest http://ozharvest.org distributed almost 4 million kg of fresh food to 800 charities (OzHarvest, 2015).

Foodbank South Australia
Foodbank is a hybrid of a food distribution service to food providers and a direct service provider. Whilst they are a food rescue service that distributes food to more than 450 community organizations and to 270 schools for school breakfast programs, they also run four low cost food stores called Foodhubs in the State – in the north in Elizabeth, in Bowden close to the CBD, in suburban Edwardstown, and rurally in Port Pirie. In each case the store is run in partnership with a not for profit agency such as Anglicare SA, https://www.dcsi.sa.gov.au/services/latest-news/media-releases-2015/relief-for-struggling-families-as-elizabeth-foodbank-officially-opens. They also have begun to operate pop-up food banks operating like food hubs in areas of specific demand such as Noarlunga. The Foodhubs operate on a voucher system whereby customers receive vouchers based on an assessment by community services organisations. Whilst there are some fresh fruit and vegetables provided, there is concern that the majority of food offered and chosen by voucher holders at the Foodhubs is ultra-processed foods high in salt, fat and sugar or baked goods.

In 2015 the South Australian State Government committed to fund Foodbank until 2018.

SecondBite
SecondBite has been collecting and redistributing food in South Australia since September 2013. In the 2014 financial year, SecondBite SA redistributed more than 350,000kg of fresh produce to 73 community food programs across the state. This food was collected from 33 Coles’ supermarkets and Foodland supermarkets in Pasadena & Frewville, along with local growers and suppliers.

In 2014 Secondbite also facilitated Foodmate programs (cooking classes), nutrition education programs (fresh NED program in Victoria, Tasmania, NSW) and capacity building in volunteers and staff. In Tasmania the prison service grows food for Secondbite. In South Australia in 2014, 73 food programs were supported by Secondbite, in partnership with the Salvation Army. Their policy is that all organisations are treated alike irrespective of the number of meals they provide. Fifty-seven percent of Secondbite’s food rescue is fresh fruit and vegetables and they have a distribution system directly to the Charitable Food Sector with no long-term storage facilities. In 2014, SecondBite won a social entrepreneur award from the US Schwab Foundation.

OzHarvest
OzHarvest was founded in 2004 with three pillars in their plan: food rescue, education, and engagement. In Adelaide, in the 2015 financial year, Ozharvest rescued almost 500,000kg of food.
from 280 donors, and operated three vans in Adelaide supplying food to 115 charities. Oz Harvest has a focus on corporate donors and volunteers. REAP is a regional food rescue toolkit based on the OzHarvest food rescue model for volunteers in regional areas that helps them connect local food business donors with local charities [http://www.ozharvest.org/reap/what-is-reap/].

**Food rescue** The Adelaide vans collect food from donors such as Virgin Australia, Woolworths, Lion Dairy and Drinks and Westfield from 7am–8pm. They have a team of 187 volunteers who raise awareness and funds.

**Education** The NEST Program (Nutrition, Education, Sustenance and Training) educates the community around healthy eating habits, good nutrition and the reduction of food waste. The guidance builds skills and knowledge that allows individuals to make healthier eating choices, better understand food preparation and know what to do with leftovers. NEST Programs are delivered to agencies including men’s and women’s refuges, rehabilitation centres, community and neighbourhood centres, crisis accommodation centres, TAFE outreach services, youth services, special schools, medical support agencies and organisations supporting low socio-economic areas. In South Australia in 2015, Ozharvest delivered 13 NEST programs to 170 people throughout the community through Community Benefit SA.

*The Nourish Program* began to Adelaide in 2016 together with John T Reid Foundation, Morialta Trust and FWH Foundation. [http://www.nourishlife.org/about/the-initiative](http://www.nourishlife.org/about/the-initiative). Nourish is an 18-week course that provides a Certificate II in Kitchen Operations or Hospitality aimed at vulnerable youth between the age of 16 and 25 years that links into Certificate II. There is no cost to participants. It begins with a six-week introductory course covering basic cooking skills, nutrition, food safety, kitchen hygiene, communication skills, team work skills, resume writing and surviving job interviews.

**Engagement.** In 2014 the United Nations Environment Program (UNEP) partnered with OzHarvest to organise a number of ‘Think Eat. Save’ events that brought chefs, politicians and celebrities come together to take a stance against food waste, raise awareness around sustainability and education on food security.

**Community Food SA**

A more local approach is offered by Community Food SA a not-for-profit Christian multi-denominational community based charity that provides affordable groceries, clothing and household goods and social interaction through their grocery shop, Op Shop and coffee shop, without geographical restriction to low income people of all religions and nationalities. It was established in 1989 by Christians from a number of churches in and around Blair Athol to assist people to overcome poverty and prevent the recurring cycle of poverty for vulnerable families and individuals. Community Food SA commenced operating in the Community Centre at Gepps Cross primary school on 4th July, 1990 under the name of Enfield Community Food Centre. The service expanded quickly, relocating to 580 Main North Road Gepps Cross in August 2010.

Community Food SA offers placements for people to obtain work experience, gain skills and self-confidence to help them join the paid work force. They also provide groceries to welfare agencies to assist them in providing their own services. It receives financial support from a number of corporate bodies, sporting clubs and the Department of Communities and Social Inclusion as well as food and in-kind support from food producers and retailers.

It would be very useful for government to understand the spread of government and non-government funding going to individual organisations and their activities. Mapping the food and nutrition actions across the State will allow for a more coordinated approach to funding, implementation and
identifying what works and where.

**Recommendation 2: Map and report on food philanthropy activities intended to reduce Food insecurity in SA**

**Recommendation 5: Engage with Community Sector stakeholders in South Australia to determine how best to undertake these recommendations.**

**DCSI funding**

The South Australian Government contributes a significant amount of funding to the charitable food sector through the lead agency for food relief, the Department of Communities and Social Inclusion (DCSI). Over the last 3 financial years (2014/5 to 2016/7), DCSI has provided almost $1.2m dollars in funding for explicit food relief activities with another $1.8m provided for broader emergency relief activities, of which food relief is the major aspect.

This has included supporting organisations such as Foodbank SA where at the 2014 State Election the State Labor Government committed to funding Foodbank SA $250,000 per annum over 3 years to support their operations and expansion across the State, as well as supporting other food relief bodies such as OzHarvest and SecondBite through DCSI’s once-off grant programs.

The State’s Emergency Financial Assistance Program has provided almost $1.8m in direct financial assistance to South Australians experiencing immediate acute crisis over the last 3 years and in the majority of cases this has been delivered by Non-Government organisations through the provision of food parcels or food vouchers. (personal communication Rory Spreckley DCSI 3 October , 2016).

However the full range and funding of charitable food donors, rescue organisations and recipient organisations in South Australia is not within the scope of this report.

**Recommendation 4: Identify funding across government to community sector charitable food organisations**

Food banking organisations play an important role in responding to food insecurity but are limited in their capacity to improve long-term food security due to their limited distribution of healthy foods. These organisations in the NFP sector have limited resources, high demands on frontline staff and volunteers and limited nutrition training. However if nutrition is an integral part of providing food assistance, it is important that both staff and volunteers are well equipped to advise both donors and users of the most nutritious foods.

The Model to Drive Research-Based Policy Change: Improving the Nutritional Quality of Emergency Food (MDRBPC) has effective and transferable training programs and materials that can being adapted, piloted and modified and made available for online delivery. The flexible participation, contemporary educational design and opportunities for interactive learning provided by platforms such as Massive Open On-line Courses (MOOCs) provides an affordable and flexible way for staff and volunteers to develop their skills and knowledge about food and nutrition security.
Recommendation 15: Encourage NGOs to up-skill staff and volunteers in food and nutrition sensitive food banking
EVIDENCE BASED MODELS EXIST THAT ARE APPROPRIATE TO SUSTAIN OR IMPROVE FOOD SECURITY IN SOUTH AUSTRALIA

This section covers both policy settings and examples of models that influence food security or have been shown to improve food security. A recent review evaluating actions to address inequalities in healthy eating identified a paucity of high quality evidence for the effectiveness of targeted food relief schemes for disadvantaged households to access healthier diets (Friel et al., 2015).

Exworthy (2008) has pointed out that it can be very difficult to achieve effective policy on the social determinants of health (SDH) for the reasons outlined in the table below.

Table 2 Features of SDH and their impact on policy making

<table>
<thead>
<tr>
<th>Features of SDH</th>
<th>Impact on policy-making</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-faceted phenomena with multiple causes</td>
<td>Coordinated strategies are difficult to achieve</td>
</tr>
<tr>
<td>Life-course perspective</td>
<td>Long-term approach does not match policy timetables</td>
</tr>
<tr>
<td>Inter-sectoral collaboration and partnership</td>
<td>Partnerships are problematic</td>
</tr>
<tr>
<td>Dominance of other priorities</td>
<td>SDH often neglected</td>
</tr>
<tr>
<td>Cause-effect relationships are complex; attribution difficulties</td>
<td>Attribution problems hamper policy; reliance on process measures</td>
</tr>
<tr>
<td>Data</td>
<td>Routine data that is of high quality, timely and available, are often lacking</td>
</tr>
<tr>
<td>Globalization (and decentralization)</td>
<td>Policy-making involves more stakeholders at multiple levels, hampering governmental action</td>
</tr>
</tbody>
</table>

(Exworthy, 2008).

A Cochrane review: Community level interventions to improve food security in developed countries, is currently underway reviewing interventions that improve supply food and access to food at both a community and household level (Burns et al., 2010). Both a qualitative analysis and a meta-analysis of data from randomised controlled, cluster randomised controlled trials, controlled before and after studies, interrupted time series, historically controlled studies, and prospective controlled cohort studies with a minimum of six months follow-up from the start of the intervention to measurement of outcomes are being included. A community wide intervention was defined in the protocol as one which has at least one environmental strategy aimed at improving food supply or food access. The table below shows the interventions reviewed for influencing food supply and access.

Table 3 Intervention areas reviewed by the Cochrane review

<table>
<thead>
<tr>
<th>Interventions</th>
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<tbody>
<tr>
<td>Supply</td>
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<tr>
<td>Agricultural policy to increase local production of nutritious foods</td>
</tr>
<tr>
<td>Urban planning and zoning changes to increase the production or retail of nutritious foods;</td>
</tr>
<tr>
<td>Gardening initiatives operating at community level, across multiple schools or households;</td>
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<tr>
<td>Support for establishing grocery stores in areas that lack easy access to such stores;</td>
</tr>
<tr>
<td>Changes in food retailing or marketing practice for nutritious food.</td>
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<tr>
<td>Access</td>
</tr>
<tr>
<td>Social policies to improve socio-economic opportunities or resources for food procurement;</td>
</tr>
<tr>
<td>Food delivery or distribution services</td>
</tr>
<tr>
<td>Changes in transport services for consumers or community members to food retailers;</td>
</tr>
<tr>
<td>Reducing the price of nutritious food.</td>
</tr>
</tbody>
</table>
Thirteen electronic databases were searched from 1980 to 2016 with currently 39 articles describing 34 different interventions being currently reviewed (Wingrove et al., 2016). The outcomes will be important to inform the response to food insecurity in South Australia. Whilst we do not have the synthesized data from the meta-analysis to inform the decision making they areas identified are largely congruent with the policy setting that Bastian and Coveney (2012) developed after extensive stakeholder consultation in South Australia.

The National Rural Health Alliance together with the Rural Industries Research and Development Corporation will publish a report in March 2017 that will examine the policy settings that relate to food security at National, State and Territory level. It will also look at the role of the NFP sector and the food supply chain. The Alliance are focusing broadly but with a particularly interest in rural and remote communities as their concern is that poor food security is contributing to higher rates of obesity and affecting mental health and wellbeing. Although not yet released a recent article in the Australian Journal of Rural Health (Brooke, 2016) indicates that their recommendations will prioritise supporting pregnant women and young children, a position that would be clearly supported by the Barker Hypothesis or the developmental origins of adult of disease, affecting cardiovascular disease and (Barker et al., 1993) and type 2 diabetes (Hales and Barker, 1992).

**Recommendation 7: Consider key recommendations from the forthcoming Cochrane Food Security Review and Rural Health Alliance report for application in SA.**

**INTERNATIONAL POLICY and INITIATIVES**

In the UK the Health Development Agency (HDA) developed a short list of urgently needed policy responses to obesity and overweight. The HDA recommended that policies and strategies should focus on environmental and population level interventions, rather than those focused on the individual (Mulvihill and Quigley, 2003).

European law through the European Union identifies a number of settings that control the distribution of food. As across many developed countries, food banks have proliferated in Europe over the last 20 -30 years, with a goal of redistributing surplus food. However there are significant barriers such as food labeling regulations and incentives to compost rather than redistribute food that can affect the donation and redistribution of surplus food (Baglioni et al., 2016). Only in Italy is there a Good Samaritan Law that protects the donor from liability around the safety of donated food. All EU member states have “use by” dates; dates after which it is illegal to donate the food. However there appears to be confusion between “use by” and “best before” dates. It is not illegal to distribute food after a best by date and before a use by date but a number of countries do not differentiate between the two date systems (O'Connor et al., 2014).

In the USA, the Bill Emerson Good Samaritan Act (Public Law 104–210—OCT. 1, 1996 110 Statute. 3011), protects businesses that donate food in good faith from being held liable should someone become sick from consuming donated food. The only exception to the law is in the case of gross negligence or intentional misconduct. This Act gives uniform minimum federal protection to all donors, even if the food donated crosses states lines. The law protects individuals, for-profit and non-profit businesses, and governmental entities [https://communityfoodrescue.org/need-to-know/legal-protectons/](https://communityfoodrescue.org/need-to-know/legal-protectons/).

**Fiscal incentives** - Only France (60%) and Spain (35%) offer tax credits from corporate income tax for donated food although food donation can be treated as a deductible expense in most EU Member
states. In Portugal donors can deduct 140% of the value of the food at time of donation. However food donations do not generally attract VAT although this can be a disincentive for donors as it mean that the value of the good is regarded as zero or close to zero and thus accrues little tax credit (O'Connor et al., 2014). In February 2016 France passed “corporate social responsibility“ legislation (Republique Francais, 2016), that requires supermarkets over a certain size to sign donation contracts with charities from February 2017. The legislation penalizes supermarkets that make edible food products unfit for human consumption and ensures that manufacturers under a private label will not be prevented from donating their surplus to charitable organisations.

**Educational approaches**

Germany (“Too good for the bin”) [https://www.zugutfuerdietonne.de](https://www.zugutfuerdietonne.de) and France (“reduce our waste” [http://preventiondechets.fne.asso.fr/fr/je-minforme/reduisons-vite-nos-dechets-ca-deborde.html](http://preventiondechets.fne.asso.fr/fr/je-minforme/reduisons-vite-nos-dechets-ca-deborde.html)) have both launched educational campaigns aimed at changing behavior around food waste and surplus food.

**Use of surplus food as a source of renewable energy.** The EU prioritises food surplus distribution over composting, creation of renewable energy and finally landfill. However countries with rapidly expanding biogas industries such as Sweden, Denmark, Germany and the UK have investment subsidies and low interest loans in place to promote the use of surplus food for anaerobic digestion (AD) and energy production. It is also more expensive in many EU member states, including the UK, to donate surplus food than use it for energy production. In contrast France has fiscal incentives to make food donation cheaper than AD.

The following recommendations of 2014 report commissioned by the European Economic and Social Committee (O'Connor et al., 2014) that compared member states’ legislation and practice on food donation are noteworthy in relation to the South Australian context.

- The food waste hierarchy be linked with waste management strategy to prioritise food surplus being used for food before energy production.
- That fiscal tax credits appears to be the best way to incentivizing corporate food donation.
- A list of products that can be exempted from “best before” date can maximize both donation and consumption of long conservation foods.
- Requirements for donations to be provided free can be amended as social supermarkets, where there are nominal charges for food, are effective and dignified mechanisms to improve food security.
NATIONAL POLICY AND INITIATIVES

In 2010 the Prime Ministers Science and Innovation Council (PMSEIC, 2010) recommended the establishment of the Australian Food Security Agency that would co-ordinate and implement policies and programs targeted at improving our food security that would focus specifically on policy and programs across food production., processing and supply sectors. However this recommendation has not been accepted.

In May 2013 the Australian government launched the National Food Plan that sets out strategies for National food security. However, most of the plan related to increasing agricultural productivity, developing innovation in food manufacturing, building infrastructure and workforce skills and improving regulatory efficiency. Only a small part of the Plan focused on community and household food security with market mechanisms around a competitive and productive food industry with an open access market policy for food importation. Nevertheless the connection between low income and access to healthy food was implicitly made in three of the pathways described:

- **Support socially and financially disadvantaged Australians through income support and programs to improve individual food security**
- **Continue to support programs to help disadvantaged families budget and prioritise spending toward goods and services such as food**
- **Provide support to non-government organisations that assist people experiencing food insecurity through government grants and the taxation system**

The National Food Plan also clearly identifies the need for data on food security with the pathway

- **Monitor food security and consumption to identify at-risk populations, inform targeted program development and enable the evaluation of health impacts of programs.**

However it appears that the Plan was not implemented, with all information archived in 2013 after the election of the Liberal National party government. However concurrently with the development of the National Food Plan, a community based crowd-sourced “People’s Food Plan” (PFP) was developed by the Australian Food Sovereignty Alliance (AFSA)(Australian Food Sovereignty Alliance, 2013). The AFSA comprises small-scale farmers, small businesses, social enterprises and community organisations.

The PFP espouses eight principles that include building regional food economics, creating opportunities for smaller food businesses and a role for State and local government in creating opportunity for local and regional food initiatives. Only a small group of measures combat food insecurity and promote access to healthy and nutritious food. The plan provides support for Foodbank, community and school garden programs such as the Stephanie Alexander School Garden program and some farmer’s markets that make local produce accessible for communities.

The PFP recognizes the issues related to food waste and indicates that food labeling confusion also occurs here in Australia in relation to “best before” compared with “use by” dates. As in Europe there is a linkage between food waste and the national waste policy that diverts food and other organize waste from landfill to composting and soil amendments rather than renewable energy production as in Europe.

The Productivity Commission published its report, “Contribution of the Not-for-Profit Sector”, in 2010 (Productivity Commission, 2010). In the report, the Commission provided extensive
commentary on monitoring and evaluation in the non-profit sector, and made several strong recommendations to improve performance in this area. The Commission observed that there was: “a lack of timely, quality data on the economic contribution, scale and scope and impacts of the sector”. To redress this, the Commission recommended that an Information Development Plan be developed, which should provide for building databases that assess the contribution of the sector over time. The Commission also called on Australian governments to adopt a common framework for measuring the contribution of non-profits, noting that an agreed measurement framework would encourage greater evaluation within the sector. It also observed that current evaluation requirements can be complex and provide little meaningful information, and called for efforts to ensure that reporting and evaluation processes are consistent with best practice principles.

Recommendation 12: Establish appropriate reporting mechanisms to monitor progress on the intra-governmental response to food insecurity in South Australia

STATE GOVERNMENT POLICIES AND INITIATIVES

In response to the rapid growth of the food relief sector across South Australia, the State Government through a partnership between DCSI and SA Health has sought to better understand the food relief sector within SA, whilst also ultimately developing a policy framework to better inform Government decision making, promote collaboration amongst the sector and demonstrate positive outcomes for vulnerable South Australians.

Enacted through a Public Health Partner Authority agreement between the Department for Communities and Social Inclusion (DCSI) and the Department for Health and Ageing (DHA), this project aims to support the non-government sector to address food security, by assisting vulnerable populations to increase their knowledge, skills, and consumption of healthy, nutritious foods.

This research paper forms the first phase of this project.

In 2012 a set of 44 policy options designed to support the State government to improve food security were developed with 24 stakeholders in South Australia (Bastian and Coveney, 2012). In their study “stakeholders” were defined as those “who have potential to impact food security through changing the food supply or through influencing social and economic determinants of health and peoples’ access to food” (Bastian and Coveney, 2012) p1498. Half the participants worked directly or indirectly on food security issues at a community or local government level and the other half were at a government level in health, planning or social policy or in the food supply chain.

The research was conducted from the perspective that the success of policy is dependent on the context in which it is developed and implemented. Whilst the policy areas were generated from themes identified from the stakeholders they were also consistent with public health and health promotion practice and three stages of food redesign identified by McCullum as individual, community and structural or environmental change (McCullum et al., 2005). Within food security three aspects were considered: supply, access and systems support and four categories of policy action were developed: policy to

- create supportive environments
- strengthen community action
- support individual food security
- improve co-ordination and capacity for food security.
Bastian and Coveney (2012) conceptualised these policy actions as upstream to downstream strategies in the following figure (pg1499) and differentiate between policy options to exclude those that might be effective but not realistic.

**Appendix 1** lists all policy options identified.

In reviewing the policy options presented there are some which require collaboration between state and local government levels, between state and federal government levels and those where the NFP sector has an important role. However it is important to recognise that these were generated by stakeholders and are not evidence based. They are opinions of those working in the sector who believe that these options would be feasible and realistic to support an improvement in food security.

**Policy options to create supportive environments**

Develop and implement planning policies for:

1. new housing developments to ensure retail space for food outlets is available within walking distance and housing development density is sufficient to support a range of viable food retail businesses;
2. new housing developments to ensure appropriate public transport infrastructure is available.
3. Strategically increase housing density of existing suburbs to an appropriate density to support food retail businesses.
4. Invest in research that looks at true cost of living in South Australia v. income for individuals receiving welfare payments. This would look at the non-flexible costs of housing, utilities, transport and how much is left over for food v. the true cost of eating a healthy diet. Use this information to lobby the federal government for increases in income payments for certain sectors of the population;
5. Invest in retrofitting existing suburbs with food retail outlet spaces;
6. Invest in new public transport infrastructure to provide greater flexibility in public transport routes ensuring all suburbs are well connected;
Policy options to strengthen community food security

7. Provide support to shorten food supply chains by working with local governments on direct retail opportunities (e.g. farmers’ markets, farm gate sales, community-supported agriculture).

8. Provide financial (and other) support to suitable non-government organisations to assist in capturing and redistributing surplus food.

9. Provide appropriate hard infrastructure, intelligence and incentives to ensure an efficient food scrap collection and composting service.

10. Provide funding and support for the non-government food welfare sector and encourage providers to link individuals into food growing and sharing community-based programs.

Policy options to support individual food security

11. Provide funding and support to resource community education in community settings to increase literacy on nutrition and how to access fresh produce (e.g. community centres/non-government organisations, provide cooking, financial literacy and gardening skills development programmes).

12. Sustain the current projects in schools (to ensure healthy weight and nutrition remain high on the agenda) plus incorporate environmental sustainability and food growing so children consider environmental issues from an early age, are aware of where food comes from and have a greater understanding and connection to food growing.

Policy options to improve coordination and capacity

13. Create a cross-coordinated whole-of-government food policy that considers agricultural production, economic development, environmental impacts of food systems, land-use policies, urban planning, public transport infrastructure and the ability for all South Australians to afford a healthy diet and participate in food sovereignty.

14. Create a food security framework so various key stakeholders can clearly identify their role in improving food security in South Australia.

15. Set clear goals and targets for improved food security in South Australia.

16. Set clear food security indicators and monitor these to determine changes.

17. Invest in evidence generation so strategies are evidence based.

18. Invest in employment of food security project offices within agencies such as the local council.

It would appear appropriate to take these policy options and review changes and improvement that have occurred in South Australia since this paper.

Legal liability for donated food

The South Australian Civil Liabilities Act 1936 was amended in 2008 as the Civil Liability (Food Donors and Distributors) Amendment Act 2008 on 11.12.2008 to include the following provision.

Division 11A—Food donors and distributors

74A—Food donors and distributors

(1) In this section, a reference to a food donor or distributor is a reference to a person who, acting without expectation of payment or other consideration and for a charitable or benevolent purpose, donates or distributes food with the intention that the consumer of the food would not have to pay for the food and to the agents or employees of such a person.
A food donor or distributor incurs no civil liability for loss of life or personal injury arising from consumption of the food donated or distributed.

However, the immunity does not operate if the food donor or distributor knew or was recklessly indifferent to the fact that when the food left the possession or control of the food donor or distributor it was unsafe within the meaning of the Food Act 2001.

Thus South Australia has a strong legal framework in which food donation can occur. However it should strengthen the food and nutrition requirements for those organisations funded by Government who are protected under the Amendment.

Recommendation 10: Set food and nutrition compliance criteria for SA government contracting for food procurement, provision and acceptance of food donations

Community Foodies
Funded by SA Health, the Community Foodies program aims to support disadvantaged adults and their children. The goals of the program are twofold: firstly to reduce the risk of chronic disease and some cancers and secondly, to achieve and maintain a healthy weight. The program trains and uses community peer-based volunteers to provide activities that focus on four key nutrition messages in line with the Australian Dietary Guidelines and the Australian Guide to Healthy Eating. There are approximately 100 active Foodies across South Australia. This program has attracted a relatively disadvantaged cohort of community members who are well placed to support other community members and build their skills and knowledge through food based activities. An additional aim could be added to the program, namely to highlight awareness, causes and consequences of food insecurity and practical ways to manage. Already co-located with Foodhubs in some instances but working in parallel with food and social service providers, with little interaction, Community Foodies could take a more active role in partnering with Foodhubs / food banks, other food philanthropy organisations and local government in Adelaide. The value of the peer learning approach is that both Foodies and those they work with have made significant changes to their own eating and health after the program.

Strengthen Community Foodies as advocates to support a more holistic approach to food security.

LOCAL GOVERNMENT

Local government has a major role to play in food security at a community level. The South Australian Public Health Act 2011 for the first time, gives SA Councils the mandate to tackle public health issues such as obesity. Thirty two regional Public Health plans have been developed with 20 councils planning independently and 48 councils choosing to plan regionally. There are four themes: 1. building healthy communities, 2. improving health, 3. climate change response and 4. health protection.

Improving physical activity and health has a clear relationship to food. There is a two yearly reporting cycle for these plans.
Local government has been charged with undertaking these areas but most councils have little expertise in the “improving physical activity and health” area. A consultation in August 2016 (Office of Public Health SA Health, 2016) showed that local councils are keen to partner with both State Government and the Not for Profit sector to achieve their objectives. Common areas for partnership across councils linked with the second objective: Improving Health are: healthy infrastructure, healthy living, community engagement and empowerment, volunteering, access to transport and cycling and walking.

A review of two randomly chosen plans: City of Salisbury (City of Salisbury, 2015) and the City of Charles Sturt (City of Charles Sturt, 2014-2019) provides a sense of how councils are approaching these objectives and whether food security is recognized as an integral part of improving health.

The City of Charles Sturt overtly, and by implication, has identified food security objectives. The City has identified a Public Health Partnership with the Department of Planning and Transport and Infrastructure to advocate for improved legislative provisions for the location of fast food outlets, although the intent is not clear in the document. There is a clear focus on food security with the strategy: Develop a food security policy and strategy project aiming to support the availability, access, consumption and waste management of healthy and sustainable food, particularly for vulnerable groups. There is a clear key performance indicator (KPI) although no time frame identified in the abridged version of the plan. A review of the policies available on the City’s website shows the development of a Healthy Food and Drink Choices policy for council events and facilities but no Food Security Policy as of September 2016.

The City of Salisbury takes a clear ‘social determinants of health’ approach and identifies the health status of the population up front. They have used a data driven approach to their planning with links to State plans as well as community consultation on initiatives. They are quite clear about the relationship between the way in which cities are planned and designed and the effect that this has on walking, public transport and access to healthy food. They identify their potential partners in the document. A Food Security Action Plan is identified for development and implementation by June 2016 although this does not appear on the council website. They also have identified community gardens as a way into increase access to healthy food and plan to develop a community garden information guide and policy framework. They already provide fast and fresh meal kits that provide ingredients to make a meal for a family of four. They are concerned about short-term approaches to planning and funding and the expectation that successful programs will be taken up by NGOs—OPAL is an example.

These two plans take different approaches and whilst they both acknowledge the need to develop actions and policy around food security there is a difference in the focus on social determinants, clear timeframe and KPIs between the two plans.

Between 2005 and 2010, nine Victorian municipalities explored new ways to address food insecurity through improved access to healthy food in disadvantaged communities. The Food for All program (FFA) had three major objectives:

1. Influencing intra-council integrated planning-whereby food security was integrated into council plans
2. Developing leadership and partnership with community agencies, particularly community health services and church based agencies
3. Initiating and supporting advocacy to reduce barriers to food access and consumption-specifically around land use, housing availability, public transport, food redistribution strategies.
Initiatives included:
- enabling residents to identify local sources of fresh fruit and vegetables at affordable prices
- ensuring that those in poor-quality housing have access to food storage and cooking facilities
- improving food and cooking knowledge and skills among disadvantaged groups
- improving transport options for those without a car.

The evaluation report, undertaken by VicHealth, found that food security was integrated into many more council plans at the end of the five year period. The evaluation also identified a number of key factors that influenced how well local government affected food security in their municipality. IN 2008-2009 the Victorian government brought about a common planning cycle across local governments that created more opportunities. The project found that urban planning was the most difficult to influence, with public transport and siting of food outlets having a major effect on food access that local government sometimes felt powerless to influence.

The factors that helped local governments to adopt food security were:
- the existence of strong local data: mapping food shops, transport to support advocacy
- council culture, staff and a broader environment that shows leadership and support for food security policy and initiatives

The factors that enhanced the effectiveness of an integrated planning approach to food security were:
- An integrated planning culture and systems within councils
- A common planning cycle across all Victorian local governments
- Involving urban planning
- Growing influence of “Environments for Health- a planning framework- similar to “Health in all Policies”

In summary, the South Australian Public Health Act 2011 gives SA Councils the mandate to tackle public health issues. Thirty two regional Public Health plans have been developed with contextualised actions and interventions. Improving physical activity and health, part of these plans have a clear relationship with food and nutrition security. The State government could also guide councils in their planning by providing guidelines for food security under the Act. Mapping and reporting on the actions undertaken as part of the regional plans would help strengthen the partnerships between Councils NGOs and the State and sharing these reports proactively could be useful to help shape future strategy.

**Recommendation 3: Map and report on Local Government actions in Regional Public Health Plans in SA that improve food and nutrition security using LGA SA website**

**Recommendation 9: Prepare food security policy guidelines under provision 17A of the Public Health Act 2011 in collaboration with the LGA**
INTERNATIONAL BEST PRACTICE EXAMPLES

Freshplace_: a novel food pantry program in the US.

A US study in Hartford Connecticut published in 2013 (Martin et al., 2013) evaluated an intervention called Freshplace, centred in Hartford, Connecticut. This area has an estimated poverty level of 30.6% and many people access the Supplemental Nutrition Assistance Program (SNAP) that provides financial assistance to buy food (Neff et al., 2009).

Freshplace was developed between the University of Connecticut and three not-for-profit organisations: Chrysalis Centre (a not for profit service organization), Foodshare (analogous to Foodbank in Australia), and the Junior League of Hartford (a women’s service club). Freshplace serves 100 families (called members) at any given time and each member stays in the program for between 15-18 months. The aim of Freshplace is to help members increase their self-sufficiency, food security and opportunities for education and employment.

The principles on which Freshplace operates are:

1. A *culture of respect and customer service* that makes members welcome and provides *client choice around fresh healthy food* that they can access twice a month

2. *Individualised case management* including motivational interviewing with a program manager at least once a month. Members develop a Freshstart plan that they review on a monthly basis. Education, training and employment services are also provided and integrated into the plan.

3. *Wrap around programs and services* where members can access services such as employment readiness, cooking classes and nutrition education to help members reach their Freshstart goals

The Freshplace model was tested in a randomized controlled trial in two food pantries, (food hubs in South Australia). The intervention group received a client-choice pantry where they, as members, could shop twice a month, have monthly meetings with a project manager including motivational interviewing, and receive targeted referrals to community services which included a six week “Cooking Matters” class. Control group participants went to traditional food pantries as often as they wished where they received bags of food.

Follow-up surveys were conducted every three months for 12 months. At baseline, half the participants experience very low food security based on a validated measure, the USDA Food Security Module. The study also measured self-sufficiency using the Missouri Community Action Family Self-sufficiency Scale and fruit and vegetable consumption using the Block Food Frequency Screener. There was also a high level of obesity and self reported chronic disease prevalence, such as diabetes and hypertension (Martin et al., 2013).

The results showed that Freshplace participants benefitted from their participation, increasing their self-sufficiency, increasing their food security and increasing their fruit and vegetable consumption in comparison with the control group. The authors comment that food pantries were created to treat emergencies but they have become a way of life for many and indeed an industry.
The study found that

- 78% of Freshplace participants improved food security scores over 6 months
- 78% of Freshplace participants improved self-sufficiency scores over 6 months
- 31% of participants received services to improve financial stability
- 68% of participants enrolled in public benefits such as energy or housing assistance,
- 63% of participants participated in nutrition education

The Chrysalis Centre has produced a manual that is freely available, on request, for organisations who wish to set a Freshplace service (Chrysalis Centre Inc, 2014).

The Chrysalis Centre has extended the range of services to improve food security, to include a farmers’ market that operates once a week, a commercial kitchen facility that provides training in cooking and hospitality, a community garden and an art space with a focus on social determinants of health and wellbeing. Recently they have developed a urban farming Food Forest: almost two acres where members and volunteers grow fruit trees, blueberry bushes, vegetables and herbs without disturbing natural vegetation.

The Freshplace program is now being replicated in other US sites and States (www.ittakesmorethanfood.org) with modifications to the program including whether the intervention can be shortened and non health professional staff be trained to undertake the case management without affecting outcomes (K Martin personal communication, 3rd October 2016).

This intervention is one of the very few interventions that have been rigorously tested through a randomized controlled trial using validated instruments to measure outcomes and have been shown to be effective in reducing food insecurity and welfare dependency. Resources are freely available to support implementation and this could provide a model for supporting and empowering those south Australians with chronic food insecurity as it approaches this problem in a holistic social determinants of health way. The co-location of food hubs and support services would allow the Freshplace principles to be used and contextualized to South Australian conditions.

### Recommendation 8: Use Freshplace evidence-based principles to strengthen existing Foodhub interventions

### Recommendation 13: Pilot the evidence based Freshplace as a model to effectively improve food security amongst clients

### Social supermarkets/solidarity Stores

Social grocery stores have been operating in France since the 1980s and now operate in France, Austria, Belgium, the UK, Switzerland, Spain, Luxembourg, and Romania.

Their operating model has some similarities with the Freshplace model. Clients who are referred to the grocery store can purchase goods at 20% of the normal retail price. Solidarity stores serve people (members) with low income (working poor, unemployed, retirees with a low pension etc.) who can't
afford to buy healthy food on the open market but who are reluctant to take charity. The principle behind social supermarkets is choice: providing consumer choice and requiring payment. By significantly reducing the part of the budget spent on food, social stores give people the opportunity to save money for other purposes. However they are also places where people can be listened to and exchange, where they are helped to get back or reinforce their self-esteem and their will to go back to the outside world. Many activities, such as cooking lessons, nutrition workshops, parent-children activities and employment reintegration are offered to help to build self sufficiency and reduce food insecurity.

In France, social stores are usually run by associations working closely with local social services with which they review applications and determine the timeframe during which the members can have access to the stores. On average, people use these stores for 2 to 3 months, although that can be extended to 6 -12 months. These stores are supported by local governments, by organizations such as food banks and the Red Cross, by foundations and by private companies, through local or national partnerships. http://www.epiceries-solidaires.org/news/social-and-solidarity-stores. In Spain most social supermarkets are supported by Caritas, part of the Catholic church or a religious congregation.

In France, the difference between social and solidarity stores is that social stores are the responsibility of one or several towns and are publicly-funded, while solidarity stores result from individuals or associations grouped together and are cross-funded. There are 500 social and solidarity stores in France serving between 120,000 and 170,000 members per year. Association Nationale de Développement des Epiceries Solidaires (ANDES) sorts, packages and redistributes fresh food from commercial partners but specifically focuses on developing employment opportunities. They employ long term unemployed in the distribution process to build skills so that two thirds of their employees successfully transition into other paid employment when their contract ends.

Overall there are over 1000 social stores in Europe with the first stores opening in Italy and Portugal in 2016. A recent publication describing social supermarkets in Spain (De Renobales et al., 2015) made the point that providing choice for customers provides dignity at an affordable price. where Cash payments are usually made rather than a voucher system,. as well as an opportunity for other services such as budget management, cooking, language classes, clothes repair or training as well as nutrition education.. A potential model, already existing in South Australia, is the grocery supermarket operated by Community Food SA in Gepps Cross.

However although there are descriptions of social supermarkets operating in Europe with positive reviews we are not aware of any reviews no systematic reviews or evaluation of their effect on food security.

Recommendation 14: Commission a feasibility study for the establishment of social supermarkets in SA

Walking Distance from food stores –Spain ; implication for zoning and food supply

A comparison between a Spanish city and a US city of the number and types of food stores with the availability of healthy food and availability of fresh food and vegetables (Caspi et al., 2016) showed
that, in the Spanish city 77% of residents lived within 200m from a food store with high healthy food availability. In contrast 95% of US residents lived more than 400m from such stores. The Spanish city had a predominance of small food stores with high healthy food availability whereas the US city had a high presence of corner and chain convenience stores with lower healthy food availability.

However no relationship was found between food insecurity and proximity to food availability or services in poor neighbourhoods of Toronto, Canada in 2010 (Kirkpatrick and Tarasuk, 2010). Nevertheless, there is an opportunity through Local council RPHPs to develop policy and planning guidelines that encourages fresh food retailers within walking distance of housing developments.

OTHER NOT FOR PROFIT ORGANISATIONS

The Stephanie Alexander Kitchen Garden program (SAKG).

In South Australia there are 117 schools that are registered with the foundation for children in years 3-6 of primary school. An evaluation of the program (Yeatman et al., 2013) in 2013, found that the program had been implemented as intended and that the food choices students reported making, especially girls and those from rural schools had improved and that they were more likely to try new foods if they had been part of the SAKP. Parents reported that being part of the program increased their children’s involvement and confidence in cooking at home. However involvement in the SAKP was not associated with increased fruit and vegetable consumption in general or in gardening. However children did enjoy both gardening and cooking and enthusiastically embraced the activities that were enjoyable and fun. Both teachers and parents reported improvement in social behaviours especially linked with sharing meals at school with both students and staff. Then report examined both enablers and barriers and provided 15 recommendations, some of which linked the SAKP Foundation with state level education departments and the Federal government. In particular, the report recommended that an operational plan be developed that designates role and responsibilities across government portfolios, levels of government and non government organization (Yeatman et al., 2013).

CONCLUSION

This review has explored the “wicked” problem of food insecurity within a social determinants of health perspective. It is clear that food insecurity is a chronic situation for many South Australians who are living below the poverty line, with little discretionary income after housing and utility costs are paid. This report has highlighted evidence-based opportunities for both SA Health and DCSI to demonstrate leadership, both short and long term It is also clear that more robust food security measurement and regular monitoring along with government funding and keen NFP organizational response, would help plan strategies at both State and Local government level. The State could include food security in its targets for the State’s Strategic Plan. The Public Health Act 2011, with its requirement for Local government to act to improve the health of residents in their area, provides both the impetus for a focus on food security policy and an opportunity for sharing and learning. The NFP charitable food sector can play a part but a holistic approach rather than one solely focused on food has been shown to effectively break the cycle of food insecurity. Two reviews are currently underway investigating interventions to improve food security. Reviewing their recommendations in light of the findings of this report, could add further to understanding what works, where and for whom. It is also clear that a whole of government approach is needed to galvanise effort and
targeted investment and make some concerted inroads into improving long-term food security for South Australians.
REFERENCES


AUSTRALIAN COUNCIL OF SOCIAL SERVICES 2015. Inequality in Australia. 1st ed. Australian Council of Social Services, Strawberry Hills NSW.


BURNS, C. 2004. A review of the literature describing the link between poverty, food insecurity and obesity with specific reference to Australia. Deakin University


CITY OF SALISBURY 2015. Regional Public Health Plan.


LOOPSTRA, R. & TARASUK, V. 2013b. Severity of household food insecurity is sensitive to change in household income and employment status among low-income families. *J Nutr*, 143, 1316-23.


POLLARD, C. 2016. A charitable food sector to support nutrition and health in WA. The Charitable Food Sector Community of Practice Forum Melbourne.


APPENDIX 1: POLICY OPTIONS : BASTIAN AND COVENEY 2012 (TABLE 1)

Policy options to create supportive environments

Develop and implement planning policies for:

1. land zoning/land use to protect arable land for food production
2. new housing developments to ensure retail space for food outlets is available within walking distance and housing development density is sufficient to support a range of viable food retail businesses;
3. new and existing parklands, verges, street planter boxes and all green spaces that ensures indigenous and non-indigenous fruit and nut trees and edible fruiting plants are planted as a priority and produce is freely available;
4. new housing developments to ensure appropriate public transport infrastructure is available.
5. Strategically increase housing density of existing suburbs to an appropriate density to support food retail businesses.
6. Work with existing organisations (e.g. Kaurna Cultural Heritage Board) to identify and reinstate appropriate indigenous fruiting species such as Quandongs which were once prolific throughout the Adelaide Plains.
7. Advocate to federal health ministers to set targets for the food industry (including for supermarket home brands) on major nutrients like salt, saturated fat, energy and fibre;
8. Advocate to federal health ministers to introduce a standard evidence-based front-of-pack labelling system (including nutrition information, place of food origin, whether it contains GM ingredients and some kind of environmental impact rating) so that people can choose healthier foods.
9. Invest in research that looks at true cost of living in South Australia v. income for individuals receiving welfare payments. This would look at the non-flexible costs of housing, utilities, transport and how much is left over for food v. the true cost of eating a healthy diet. Use this information to lobby the federal government for increases in income payments for certain sectors of the population;
10. Invest in research that looks at more sustainable and less resource-intensive farming methods for South Australia.
11. Invest in infrastructure (such as roads) to ensure foods can move from the farm gate to the consumer in the smoothest and fastest way;
12. Invest in purchase of food retail spaces so that local council, as the landlord, can decide what type of food business moves into the retail space;
13. Invest in retrofitting existing suburbs with food retail outlet spaces;
14. Invest in new public transport infrastructure to provide greater flexibility in public transport routes ensuring all suburbs are well connected;
15. Invest in retrofitting existing public housing facilities (where possible) to ensure adequate food preparation and storage facilities are available including access to fridges.
16. Offset high running costs of remote Indigenous community stores such as electricity and the transportation of fresh food to enable food to be sold at the same cost in these stores as it is in urban areas.
17. Create more education and employment opportunities to increase people’s ability to improve their income (e.g. ‘work for the dole’ type programmes and training courses).
18. Provide investment to an external national organisation (e.g. National Heart Foundation) to work in voluntary partnerships with the food industry on targets for salt, saturated fat, energy and fibre.
19. Offer education opportunities for farmers to help them transition to sustainable production methods (e.g. organic farming and polyculture rotated crops) through TAFE courses, current agricultural courses at Urrbrae and Adelaide University.
20. Offer training and education on cold chain management practices to ensure better coordination and operations.

Policy options to strengthen community food security
21. Invest in research of community-supported agriculture, urban agriculture and other local food initiatives to determine their relevance and application in the South Australian context.
22. Provide support to shorten food supply chains by working with local governments on direct retail opportunities (e.g. farmers’ markets, farm gate sales, community-supported agriculture).
23. Support remote Indigenous community stores to create preferred-provider lists for food purchasing to keep food costs down by resultant increased buying power and reduced transportation costs.
24. Offer a small grants scheme to support groups to establish community gardens and promote participation in existing ones.
25. Provide financial (and other) support to suitable non-government organisations to assist in capturing and redistributing surplus food.
26. Provide appropriate hard infrastructure, intelligence and incentives to ensure an efficient food scrap collection and composting service.
27. Provide funding and support for the non-government food welfare sector and encourage providers to link individuals into food growing and sharing community-based programmes.
28. Provide required infrastructure and information to support food growing in remote Indigenous communities.
29. Invest in training local people (in customer service, store management and nutrition) to work in remote Indigenous community stores to reduce employment costs.

Policy options to support individual food security
30. Develop home garden design guidelines in consultation with organic home gardeners in South Australian local councils.
31. Offer free or subsidised seedlings and information on gardening to support individuals to establish home gardens.
32. Provide funding and support to resource community education in community settings to increase literacy on nutrition and how to access fresh produce (e.g. community centres/non-government organisations, provide cooking, financial literacy and gardening skills development programmes).
33. Sustain the current projects in schools (to ensure healthy weight and nutrition remain high on the agenda) plus incorporate environmental sustainability and food growing so children consider environmental issues from an early age, are aware of where food comes from and have a greater understanding and connection to food growing.

Policy options to improve coordination and capacity
34. Create a cross-coordinated whole-of-government food policy that considers agricultural production, economic development, environmental impacts of food systems, land-use policies, urban planning, public transport infrastructure and the ability for all South Australians to afford a healthy diet and participate in food sovereignty.
35. Create a food security framework so various key stakeholders can clearly identify their role in improving food security in South Australia.
36. Set clear goals and targets for improved food security in South Australia.
37. Set clear food security indicators and monitor these to determine changes.
38. Invest in evidence generation so strategies are evidence based.
39. Provide additional resources to increase the number of Aboriginal Nutrition and Health
Workers around the state.

40. Employ more people within the Department of Primary Industries and Resources of South Australia who have expertise in sustainable production methods such as organic farming.

41. Employ nutritionist/s within the Department of Primary Industries and Resources of South Australia to help break down barriers between agriculture and health.

42. Invest in employment of food security project officers within agencies such as the local council.

43. Increase awareness of the environmental impacts of food production and consumption and educate people about food security in South Australia through targeted campaigns on television, newspapers and radio.