

Local Government and Food Security

An Evidence Review

What we know about what works and what might work

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1. Introduction

This project is intended to generate evidence and exemplars of good practice that will be used to inform the development of a population health planning framework for food security in the North and West Metropolitan Region (NWMR). The Region covers fourteen urban and urban fringe local government areas (Banyule, Brimbank, Darebin, Hobsons Bay, Hume, Maribyrnong, Melbourne, Melton, Moonee Valley, Moreland, Nillumbik, Whittlesea, Wyndham and Yarra). The document is also designed to be of use to members of these councils who are concerned about food security and the role that local government can play.

Food security has been defined by the World Health Organization (WHO) as “the availability of nutritious food that is accessible to all, for a reasonable price, on a regular basis” The concept of food security encompasses a range of elements, which include, but are not limited to sustainable food production, food supply and consumers’ access to food.

Over the last decade, this issue has achieved greater prominence, both internationally and in Australia. The Victorian Government identified “promoting accessible and nutritious food” as a health promotion priority (2007-2012) and subsequently, the NWMR Public Health Unit adopted food security as a priority in 2007. At this time, food security had already been prioritised by a number of organisations in Victoria, spanning a range of sectors, including local governments and their representative/peak bodies especially the Victorian Local Governance Association, statutory bodies such as the Victorian Health Promotion Foundation (VicHealth), non-government organisations and health and community groups.

A recent protocol designed to frame a Cochrane review of food security interventions notes that whilst action on food security in developed countries is increasing there are currently no systematic reviews of the effectiveness of community food security interventions. The authors state that given the significance of the issues facing our food supply (climate change, financial crises etc) it is critical that we increase our understanding of how best to intervene at the community level to improve food security. In doing this we should focus on strategies that address food supply and food access issues, rather than on strategies that target individual education and skills development (Burn et al 2010:4).

The NWMR Public Health Unit is developing an overarching population health planning framework to guide its development of food security strategy which will complement and capitalise on food security action currently taking place in Victoria. A number of

pieces of work have been done to underpin this framework, including a review of relevant policies at all levels of government; a scan of the food security content of recent local government and community health plans in the NWMR; a consultation process with local government stakeholders and an analysis of food security statistics in the NWMR. This literature review adds to this body of knowledge by considering what we know about food security in the context of local government. This will ensure that the food security strategies developed for the NWMR are informed by the best available evidence.

The NWMR Public Health Unit food security strategy will focus on two key domains:

- Household food security – a household or community’s ability to access food (particularly healthy food), given physical and income constraints
- Future food security – given resource constraints and the threat of impacts from climate change, sustainable production of sufficient food to meet domestic and global food demands in the future. (Project Brief 2011)

2. Method

2.1 The Scope of the Review

This Review concentrates on four separate but interrelated topics as potential action areas. These topics were selected by the NWMR Public Health Unit in response to the evaluation findings of VicHealth Food for All Program. VicHealth funded selected Councils over a five year period 2005 to 2010 on the premise that "Local government is ideally placed to develop locally relevant integrated and long lasting strategies to address the barriers to food security". The Food for All Program evaluation (VicHealth 2011) identified a range of positive outcomes (eg a range of effective local strategies addressing access, affordability and food literacy; increased capacity of local government and community agencies in relation to food security policy, action and advocacy) but noted that local government faced a number of difficulties in reducing structural barriers to food security such as poverty, transport, housing affordability, food prices, and many aspects of urban development. These evaluation results identified the factors that influenced the capacity of local government to prevent and address food insecurity and have influenced the selection of the topics for this Review which are described below.

Local government and urban planning

The Review sought examples and evidence of the efficacy of local government using its planning powers to influence land use, business mix and built environment (including both zoning in relation to food suppliers/supermarkets/food outlets, agricultural purposes and zoning in relation to walking/cycle access to food outlets).

Local government and urban food production

Examples and evidence of the efficacy of local government initiatives supporting the production of food within the urban area: this encompasses urban farms, open space food production, communal/community garden initiatives and domestic food production in individual residents' backyards.

Local government and peri-urban agriculture

Examples and evidence of the efficacy of local government strategies that support peri-urban agriculture including the preservation or retention of agricultural land in the peri-urban area {maintenance of the 'food bowl'} and any alternative marketing strategies that assist farmers to maintain financial viability such as community supported agriculture initiatives, farmers' markets and stalls and agricultural tourism.

Local government and regulatory and fiscal powers

Examples and evidence of the efficacy of local government using its regulatory and fiscal powers for change including modified application of bye-laws around urban and peri-urban agriculture, food safety and street or market based food sales as well as the potential exercise of fiscal powers to support local access to healthy food and maintenance of peri-urban and urban food production.

Areas not covered

The Review does not cover all of the areas in which local government in Victoria (and elsewhere) has been involved in strategies designed to address food insecurity. In line with the public health mandate of local government, this Review focuses on household and community rather than individual food insecurity. In particular, the Review does not consider nutrition education or food literacy strategies that aim to increase people's consumption of fruit and vegetables by building their capacity to understand what constitutes a healthy diet, to plan healthy meals, to budget and shop for accessible and affordable healthy ingredients, and to prepare healthy meals. Nor does the Review look in detail at strategies that addressed food access issues via Council or community meals provision programs, emergency food relief or food rescue.

The Review does not cover the many valuable pieces of work that have assessed local level food security situations including the work in Queensland to develop a suite of tools for conducting local government community food assessments (Marshall et al 2010; Sorbello & Martin 2009): in Victoria by the Victorian Local Governance Association to develop a Rapid Assessment Process (VLGA 2008; 2009); the many detailed assessments by specific LGAs (Darebin, Maribyrnong, Moreland, Banyule, Hobson's Bay, Brimbank etc) and the Healthy Food Basket assessment methodology (Williams et al 2009; Tsang et al 2007).

Explicit reviews of the evidence about the effectiveness of interventions to prevent obesity are not covered here for example Gebel et al 2005 and NSW Centre for Overweight and Obesity 2005. Whilst there does seem to be some evidence of an association between food insecurity and obesity (Mirza et al 2007, Clark 2010, Treuhaft and Karpyn 2010) these associations are not always consistent and caution is required in making assumptions (often unacknowledged) that obesity and food insecurity are one and the same thing. Reviews that take a broader perspective and cover food security, healthy eating *and* obesity such as Good et al 2006, Pretorius 2008 and Clark 2010 have been included.

Time frame

The Review focuses on international and local literature published between 2006 and 2011 and draws on

- systematic reviews focussed on the effectiveness of relevant food security strategies
- peer reviewed publications, journal articles etc
- 'grey literature', that is project and /or evaluation reports prepared by not-for-profit, government and other agencies.
(Project Brief 2011)

The date limitations for the Review were chosen for two reasons. Firstly, a recent literature review covers the period up to 2006 (Good et al 2006) and secondly, because limited resources were available to carry out this Review. The Good et al 2006 review and other more recent reviews (Burke et al 2008, VLGA 2008, Furness 2009, Clark 2010, Treuhaft & Karpyn 2010) are included in the assessment tables in the four appendices.

The reviewer did look at much of the work covered in these reviews particularly those with a focus on local government such as Yeatman who reviewed local government's involvement in nutrition issues, (1997 and 2005) and Rychetnik et al who described a range of policy and practice options for addressing food insecurity (of special relevance to local government (2003). These are referenced in this section (but not in the assessment tables) as readers may wish to consult these original articles.

2.2. The Search Strategy

Data bases and website searches:

- PubMed: <http://www.ncbi.nlm.nih.gov/pubmed/>
- Social Science Research Network: <http://www.ssrn.com/>
- Effective Public Health Practice Project: <http://www.ehpp.ca/asystrev.html>
- The Cochrane Collaboration: <http://www.cochrane.org/>
- Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI): Social Science Research Council Department of Education.UK: Evidence On Line Library and data base of systematic reviews
<http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=67>
- Google Chrome advanced search

Urban planning

Search terms: Food security, food insecurity, food access/accessibility, food availability /affordability, healthy food, nutrition AND urban planning, town planning, precinct planning, built environment, planning for food security.

Urban food production

Search terms: Food security, food insecurity, food access/accessibility, food availability /affordability, healthy food, nutrition AND urban agriculture, urban food production, food growing, urban / community / school gardens, community allotments, backyard gardening, open space gardening, street based fruit and vegetable growing, composting, Permaculture, cultivating communities.

Peri-urban agriculture

Search terms: Food security, food insecurity, food access/accessibility, food availability /affordability, healthy food, nutrition AND peri-urban agriculture, community supported agriculture, land use mix, farmland preservation, agri-tourism, sustainable community food systems; sustainable agriculture; food resilience.

Regulatory and fiscal powers

Search terms: Food security, food insecurity, food access/accessibility, food availability /affordability, healthy food, nutrition AND street based food sales, road side fruit and vegetable sales, mobile food/fruit and vegetable sales, street and farmers markets, food rescue, food donation, food delivery or re/distribution, food safety, food swap meets, excess produce exchange, signage, local government by laws/ local laws, rates, food advertising, food labelling, food marketing, food delivery, food packaging.

2.3 The Assessment Process

Assessment of the strength of the evaluation or research evidence

The framework used in this document for assessing the strength of the evidence is based on the recommendations by Haby and Bowen endorsed by the Department of Health in the document *Making decisions about interventions: A guide to evidence-informed policy and practice* (2010:8-19).

Table 1: Victorian Department of Health recommended categories for assessing the strength of evaluation and research evidence of health intervention effectiveness

Category	Strength	Description	NHMRC designation of levels of evidence
1	Strong evidence of effectiveness	One systematic review or meta-analysis of comparative studies; or several good quality randomised controlled trials or comparative studies.	Levels I–III
2	Sufficient evidence of effectiveness	One randomised controlled trial; one comparative study of high quality; or several comparative studies of lower quality.	Levels II–III
3	Some evidence of effectiveness	Impact evaluation (internal or external) with pre- and post-testing; or indirect, parallel or modelling evidence with sound theoretical rationale and program logic for the intervention.	Level IV
4	Weak evidence of effectiveness	Impact evaluation conducted but limited by pre- or post-testing only; or only indirect, parallel or modelling evidence of effectiveness.	Level IV
5	Inconclusive evidence of effectiveness	No position could be reached because existing research/evaluations give conflicting results; or available studies are of poor quality or have very small sample sizes.	
6	No evidence of effectiveness	No position could be reached because no evidence of impact/outcome available.	
7	Evidence of ineffectiveness	Good evaluations (high quality comparative studies) show no effect or a negative effect.	Levels I–III

Source: Haby and Bowen 2010:9

Haby and Bowen acknowledge that many of the reports on health interventions are qualitative in nature and based on methods not covered by the categories described above. They indicate that whilst there may be a case for the adoption of categories of *emerging evidence* or *promising practice*, they do not advocate this due to lack of a clear or consistent definition of their nature (2010:8). However, the authors recommend reference to the hierarchy of evidence for appraising research based on qualitative methods developed by Daly et al 2007 (see Table 2 below).

Those of us working in the field know that a good deal of the work done by local government in response to food security is under-reported and under-researched, and where evaluation has been done this is usually qualitative in nature. Because this review was designed to capture 'grey' as well as 'scientific' literature, a combination of the Daly and DH approaches has been used.

Table 2: Daly et al hierarchy for appraising the strength of qualitative research evidence

Study type	Features	Limitations	Evidence for practice
Generalisable studies (level I)	Sampling focused by theory and the literature, extended as a result of analysis to capture diversity of experience. Analytic procedures comprehensive and clear. Located in the literature to assess relevance to other settings.	Main limitations are in reporting when the word length of articles does not allow a comprehensive account of complex procedures.	Clear indications for practice or policy may offer support for current practice, or critique with indicated directions for change.
Conceptual studies (level II)	Theoretical concepts guide sample selection, based on analysis of literature. May be limited to one group about which little is known or a number of important subgroups. Conceptual analysis recognizes diversity in participants' views.	Theoretical concepts and minority or divergent views that emerge during analysis do not lead to further sampling. Categories for analysis may not be saturated.	Weaker designs identify the need for further research on other groups, or urge caution in practice. Well developed studies can provide good evidence if residual uncertainties are clearly identified
Descriptive studies (level III)	Sample selected to illustrate practical rather than theoretical issues.	Do not report full range of responses. Sample not diversified to	Demonstrate that a phenomenon exists in a defined group. Identify practice

	Record a range of illustrative quotes including themes from the accounts of "many," "most," or "some" study participants.	analyse how or why differences occur.	issues for further consideration.
Single case study (level IV)	Provides rich data on the views or experiences of one person. Can provide insights in unexplored contexts.	Does not analyse applicability to other contexts.	Alerts practitioners to the existence of an unusual phenomenon.

Source: Daly et al 2007:46

2.4. The Presentation of the Results

The body of this document consists of four sections: the Introduction, this Methods section, Results and finally Conclusions. The detailed assessment of the literature is contained in four appendices.

The Results section presents a summary of the conclusions drawn from the review of the literature. Results in relation to each of the four topics are presented under the following headings:

- what we know works
- what we think might work and
- brief case studies to illustrate how local government can act. Where possible case studies of initiatives in Victoria have been used.

Readers should note that the detailed tables in the appendices are organised chronologically under each of the four topics except in a few cases where references are grouped under specific headings such as Farmers' Markets or Community Supported Agriculture or Community Gardens. A total of 65 references are reviewed (plus a number of guides or how to documents). Three references appear under more than one topic. A yellow highlight is used to assist the reader in identifying Australian material.

Each of the references is described within the following format.

1. *Reference*: Author, date, title and publication details.
2. *Scope*: A brief summary of the material covered in the reference.
3. *Conclusions*: A brief summary of the conclusions
4. *Nature and strength of the evidence*: A brief description of the type of evidence based on the method (literature review, program description or evaluation, needs assessment, knowledge

mapping, scoping document, policy, advocacy or position statement, etc). Each reference is then categorised using the DH and Daly hierarchies.

5. *Relevance* of the intervention to the four environments for health (built, natural, economic and socio-cultural) and to specific areas of local government activity. These areas are identified by generic descriptors (based on a scrutiny of 10 local government websites and their organisational plans):
 - *Planning including Strategic, Urban or Infrastructure Planning*: precinct planning, buildings, transport, zoning, open space planning and the work of developing the Council Plan and the Municipal Strategic Statement.
 - *Business or Economic Development*: this may include business partnerships, support, tourism, city marketing, arts and cultural activities and major events.
 - *Public Health*: including food safety and the inspection and licensing of food retail outlets; inspection and licensing of accommodation such as hostels and boarding houses, overseeing public health issues to do with animal husbandry, waste management, food preparation and distribution etc.
 - *Community Services*: with a focus on children, youth, adult, families, diversity ie culturally and linguistically diverse communities such as Indigenous Australians, new arrivals etc, aged, recreation and leisure services. Usually includes health and social planning and the development of the Municipal Public Health and Wellbeing Plan.
 - *Environment/Sustainability*: including waste management, recycling, parks and gardens, community food production initiatives, and a range of associated environmental issues such as water uses, fire safety, preparation for peak oil etc.

3. Results

This Review has failed to find high level evidence that demonstrates causal links between local government action and the prevention or amelioration of food security (or its proxies: nutrition, healthy eating or obesity). Other recent local literature reviews (Kent et al 2011; Clark 2010; Good 2006) have reached similar conclusions.

We are now slightly better informed about the associations between various factors in the urban form, the food system and community and household food security. At the same time, we still lack high level impact and outcome data that demonstrate and document the efficacy of interventions in any of these areas.

It is not all gloom and doom; this is more a message of caution and of hope. The urban form and the food system can be modified and the modifications have the potential to have an impact on food security. Whilst the literature is growing, we need much more documentation of what is being done, and better process, impact and outcome evaluation. We also need more experience and evidence from the local rather than North American scene.

3.1 Urban Planning

This topic generated the greatest number of references (100+) and these were reviewed to ensure relevance; 20 have been assessed in Appendix 1.

What we know

This is the only area where systematic or semi-systematic reviews of the literature were located (Kent et al 2011; Clarke 2010; Truehaft and Karpyn 2010; Ostry 2010; Good et al 2006 and follow up 2009). Australian data are relatively thin on the ground and most of the evidence is based on the North American experience (US and Canadian).

The following conclusions are emerging from these reviews:

- There is some evidence of associations (but not causality) between the built environment and fresh food consumption.
- In particular there seems to be an association between consumption, the density of fast food outlets and convenience stores, and proximity to supermarkets, however, these associations seem to be mediated by wealth and access to transport.
- Good evidence exists for an association between the co-location and advertising of unhealthy food options near schools,

suggesting policies to reduce fast-food exposure in the vicinity of schools are justified” (Kent et al 2011)

- Access to healthy food has consistently been shown to be more difficult in lower socio-economic areas; factors in this include higher density of fast food outlets, lower density of supermarkets or convenience stores selling a range of good quality affordable fresh fruit and vegetables, lower rates of private car ownership and more limited access to public transport.
- There is limited evidence some small scale studies that increasing access to a local supply of fresh food increases consumption.

With this growing evidence that obesity, nutrition, food security and fruit and vegetable consumption are associated with the features of the urban environment in which people live (and particularly those living in low income or disadvantaged areas), advocates are increasingly calling on local and state governments to use their urban planning powers to take a variety of health and food related issues into account. (Budge and Slade 2009, David Lock Associates 2010)

In addition, practical suggestions and 'how to' guides on how urban planners (and particularly local government planners) can adopt food sensitive design are beginning to surface in the policy, advocacy and grey literature (Good et al 2006; University of Minnesota 2007; Enns et al 2008; Budge and Slade 2009; SGS Economics 2010; Qld Govt and Heart Foundation 2010; Ostry 2010; David Lock Associates 2011).

What we think might work.....

As described above, we now can make a number of key connections between the urban form and the food system, however we still have relatively limited evidence about which strategies or interventions have been shown to make a difference in urban planning in terms of food security, a number of potential strategies (based on limited evidence but a good deal of practice experience and expert opinion) are emerging.

There are three key areas where it seems likely that planners can take action to ensure food sensitive design principles are adopted.

Firstly, in relation to land use patterns, local government planners can:

- Ensure that processes to undertake precinct or structure planning identify, zone or designate sites for fresh food retail or production

- Ensure that the potential for food production options in communal open space are included when undertaking open space planning
- Advocate for changes in the Victorian Planning Provisions where it is identified that these prevent or hinder food sensitive design.
- Advocate for the adoption of a specific zone for commercial urban agriculture
- Consider how they can use local laws to influence food access in situations where they believe their legislated planning powers are limited. For example, local government reports that it has limited powers to influence the mix of food retail outlets under the current state planning scheme. However, it may be possible to use Council bye-laws to modify the size and the location of the signage that advertises specific types of food outlet such as fast food chains.
- Explore the possibility of following the example of some local authorities in the UK who are seeking the powers to ban “unhealthy takeaway food outlets” if they are close to schools. <http://www.dailymail.co.uk/news/article-1285939/Judge-declares-fast-food-takeaway-near-school-unlawful.html>

Secondly, planners can take action in relation to urban design measures at the individual building or site, street and neighbourhood level by:

- Including food production options into building, street and neighbourhood design
- Ensuring affordable housing options are part of any new development.

Finally, given the evidence of access as a barrier to food security (and the limited role of local government in the public transport system as a whole) local government can take action in relation to modes and patterns of transport, action could be taken in

- Providing community based transport to key food retail outlets
- Encouraging food retailers to provide transport or delivery services
- Ensuring walkability or cyclability for residents to reach local fresh food outlets

- Undertaking advocacy to higher levels of government in order to influence the provision and frequency of public transport which in Victoria but not Queensland, is a state government responsibility.

Case Studies

The London Borough of Barking and Dagenham has high levels of childhood and adolescent obesity. A key contributory factor is access to unhealthy food and, in particular, the proliferation and poor nutritional standards of takeaway food. As part of the Council's new Local Development Framework (LDF), a specific policy document was developed to provide guidance on addressing the health impacts of proposed new hot food takeaways. Entitled *Saturation Point: addressing the health impacts of hot food takeaways*, this document sets out the Council's policy of restricting new takeaways from opening up near schools. A mapping exercise identified the location of all schools, town centres/shopping parades, and existing hot food takeaway outlets in the Borough. An exclusion zone of 400m was then applied around each school, to identify locations where new hot food takeaways would be unwelcome. This specific planning document introduces an innovative requirement for developers of new hot food takeaway outlets to make a contribution of £1,000 as a planning obligation under Section 106 of the Town and Country Planning Act 1990. These funds are used to manage litter and disturbance and provide investment for initiatives to tackle childhood obesity, including improvements to walking and cycling facilities and training and support for operators to consider healthier options, recipes and ingredients.

http://nhfshare.heartforum.org.uk/RMAssets/Casestudies/Barking&Dag_Saturation_Point.pdf

City of Darebin: Draft Structure Plans for Reservoir (a known food desert with high levels of food insecurity) contains an explicit discussion of the food security needs of the area, discusses the need to ensure the provision of affordable housing, sustain a vibrant community gardening culture, and plans for the potential development of a number of other urban agriculture initiatives and the inclusion of two new supermarkets into the area.

http://www.darebin.vic.gov.au/Files/Reservoir_MAC_Vision_Discussion_Paper_Full.pdf

David Lock Associates 2011:52; describes how the 2006 City of Wodonga Municipal Strategic Statement contains food security sympathetic inclusions particularly relating to small activity centres to enable food access in new residential developments and to

ensure walkable neighbourhood catchments with higher residential densities and convenience centres have public transport within 400 metre radius. The MSS also re-zoned land to facilitate the development of more diverse shopping centres outside the town centre which was formerly the only area where commercial activity was allowed. This resulted in new supermarkets being established closer to residential areas.

SGS Economics & Planning 2011: Presents evidence of how entry of ALDI supermarkets has been shown to have a significant effect on prices of food in the area both through its own low pricing policy and the lowering of prices among its competitors. This document also describes how planners can assist the development of supermarket diversity (especially in relation to ALDI and COSTCO) by rezoning sites as necessary and being aware that existing supermarkets may actively lobby against the entry of low cost competitors into the area.

City councils in Melbourne have been resisting pressure to redevelop or move out the older style municipal markets which have acted as accessible (usually in town centre close to transport) sources of affordable fresh food outlets that provide access to seasonal fruit and vegetables at very reasonable prices eg Dandenong, Footscray, Queen Victoria, Prahran, Preston, South Melbourne. Some markets have been lost in the recent past eg Moonee Ponds and replaced by residential development and a supermarket. Local government has to take care that encouraging and supporting farmers markets does not undermine the viability of the traditional markets.

3.2 Urban Food Production

The Review assessed 23 urban agriculture references in Appendix 2.

What we know works....

As with urban planning, we are faced with a dearth of research or evaluation that adequately demonstrates the efficacy of urban agriculture initiatives in preventing or alleviating food insecurity.

No systematic review of the effectiveness of urban agriculture per se was located. However, two systematic and several broad based reviews of the literature around community gardening and garden based nutrition programs were located. The results were mixed as discussed below. A range of qualitative evaluations were also located that provide low to moderate evidence that urban agriculture has a variety of benefits, although food security does not stand out directly as one of these. Urban agriculture appears to have an impact on health more generally and potentially on economic status which may flow through to food access.

Urban food production occurs in a wide range of settings (derived from Veil 2008:112). The evidence is variable in relation to each type of urban food production.

Public space food production available to all for example in parks or on nature strips as initiative of Council (eg Darebin fruit plantings in Cramer St and in All Nations Park) or the result of guerrilla gardening activity (eg City of Yarra). Little or no evidence was located that demonstrates that food production in public open space is effective in relation to food insecurity.

Supported communal and community gardens specifically run for education or social interaction reasons , especially in relation to vulnerable groups (eg Maribyrnong, Brimbank, Port Phillip, Wodonga, Frankston North). Some of these gardens are sited in education or training settings eg TAFE Colleges, schools, kindergartens, child care centres, disability services (eg Swan Hill, Sprout in Thornbury) etc. Also independent community gardens for individual use that usually consist of individual plots for people who do not have space to grow food at home or prefer the interaction or support of doing so with others.

The evidence appears mixed on the impact of participation in community gardens and youth garden based nutrition programs (such as school gardens). Litt et al 2011; Browne et al 2009; Robinson-O'Brien 2009; Bellows et al 2008; Alaimo et al 2008, Wakefield 2007 all report increases in fruit and vegetable intake and

some changes in dietary attitudes and practices. The McCormack et al 2010 systematic review states that they were unable to conclude whether community gardens (and farmers' markets) had a positive impact on nutrition and attitudes or practices to eating fresh fruit and vegetables.

No evidence is available of the extent of any impact relative to socio-economic status. Similarly there is low to moderate evidence that participation in community gardening has a number of other benefits in terms of social inclusion, mental health, sense of community and safety, particularly in relation to socio-economically disadvantaged or vulnerable populations. The evidence also suggests that with vulnerable groups the benefits can be significant but on-going management and resource support is necessary.

Private domestic gardens made by residents in their backyard, roof top or balcony. We are just seeing the emergence of garden sharing in Victoria (Sunday Age July 17th 2011 page 10), where people with gardens allow those without gardens, to grow food on their property. There is relatively little research on the impact of home food production but what there is suggests that it can be significant and bring additional benefits such as mental and physical health and the development of community links.

Commercial or semi commercial urban or city farms which may be primarily educative and demonstration sites but may also engage in some entrepreneurial food production (eg Ceres in City of Moreland; Myuna Farm in City of Casey; Collingwood Children's Farm in the City of Yarra). Little or no formal evidence was located of the impact of these initiatives, though anecdotally, they are reported to make a difference to the participants.

What we think might work....

In relation to the built environment, urban agriculture can be supported by

- Planning support to include food production in new developments (roof top, balcony, vertical) or to retro-fit existing urban developments.

In relation to the economic environment, local government can support urban food production by providing practical and financial

- Infrastructure support re the provision or availability of
 - composting (bins)
 - water use (tanks, hoses and pumps)

- soil preparation (soil analysis, labour support, compost or topsoil provision, fertiliser)
- growing (raised beds, seeds, seedling, tools)
- Support to facilitate the redistribution of excess domestic food production eg. market sales, food swaps, food rescue donations

In relation to the natural environment, Councils can support the development and maintenance of urban food production by

- Planning work to ensure food production is incorporated into development and maintenance open space, parks and gardens, nature strips
- Advocacy to vary zoning regulations to facilitate urban farm development
- Variations in the local application of water regulations to support food growing.

In relation to the social environment, local government can support urban food production by

- Promoting the environmental, nutritional and economic benefits of domestic food production
- Providing information and education about the skills needed for domestic food production eg soil preparation, mulching, composting, water use, pruning, planting, harvesting, bee keeping, chicken and duck keeping, for using home produce via cooking, preserving or sharing excess fresh food.

Case studies

City of Greater Dandenong: VicUrban Meridian Development – integrated edible landscape into a new development. Public orchards supported by levy included in each household’s rate notice. These funds are managed through the Meridian Homeowners Association and pays for a community and landscape manager to manage maintenance requirements and work with residents to create an activity program to maintain the orchards.

Moreland City Council: Ceres Farm and Market in Brunswick has been in operation for over 20 years despite the fact that no zone for commercial agriculture exists.

Baw Baw Shire: Active by Design Guidelines: new guidelines require that for a sub-division to be considered ‘active by design’ the people that live there should be able to enjoy community gardens.

All described in David Lock Associates. 2011:

Swan Hill Rural City Council. As a participating Food for All Council 2005-2010, Swan Hill provided a range of support to the Manatunga Community Garden, an Aboriginal community garden that has been operating for 10 years. Council assisted the garden group to apply for federal government grants that then enabled them to install water tanks and a watering system and to purchase fruit trees. Council provided some infrastructure support in the form of framing for a greenhouse, and a barbeque so produce could be cooked on site, and community sessions could occur to engage and involve more participants etc. The garden participants were also encouraged to visit the nearby Robinvale Community Growers Market. This provided an opportunity for the garden to sell any excess produce. The key has been the leadership and consistency of the person involved in running the garden and great patience in building the relationship between the FFA project and the indigenous community.

Brisbane City Council is encouraging urban agriculture and has incorporated it into high level planning documents such as The City Plan. This document, *Our shared vision – Living in Brisbane 2026 city-wide outcomes* states “Food in the city: Brisbane is lush with food producing gardens and city farms in parks, schools, backyards, community facilities and businesses.” One example is the Northey Street City Farm
<http://www.activehealthycommunities.com.au/content/case-study-northey-st-city-farm-windsor>

City of Darebin supports gardeners in a number of ways: discount prices on compost bin, sustainable gardening workshops; the Backyard Harvest Festival Program, and a number of publications around sustainable and seasonal gardening.

Maribyrnong City Council has supported community gardens in a number of ways; supporting the development of a Community Garden Network; establishing a community gardens webpage on the Council website; using its small grants program to support the development of community gardens for particular cultural groups (through the their local church or support agency); resourcing garden development in low cost housing sites; supporting existing communal gardens in low income areas.

Brimbank City Council has supported an annual Tomato Project since 2008. This project involves the provision of thousands of tomato seedlings to residents as well as a series of workshops in neighbourhood houses on how to grow tomatoes (planting, staking, fertilising, harvesting) and how to cook using tomatoes, a series of

garden open days, tomato related art projects and even the crowning of a King and Queen of Tomato Growing in Brimbank. Community volunteers are involved as tomato growing gurus and Iramoo, a local sustainable community garden centre in St Albans supported by Victoria University, plays a key role in supplying seedlings and providing advice and training. A small scale evaluation in 2010 (FFA unpublished material) indicated that most participants were interested in other programs related to fruit and vegetable growing, composting and meal and recipe suggestions. Over half the participants were already growing food at home; others wanted to but felt they were hindered from doing so by water restrictions, lack of gardening knowledge and constraints on their time.

In NSW, Byron and Tweed Shire Councils are delivering the 'Sustainable Streets' program that aims to foster community-inspired sustainable behaviour change at a street-by-street level. The program consists of regular neighbourhood gatherings and sustainability education workshops on topics, including:

- local food production,
- bush-friendly gardening,
- rainwater harvesting,
- solar power and energy efficiency,
- ethical shopping, and
- green cleaning.

<http://www.byron.nsw.gov.au/sustainable-streets-program>

3.3 Peri-urban Agriculture

The Review assessed 14 research and policy references; 12 documents that describe peri-urban agriculture initiatives are also included.

What we know works....

No systematic review of the effectiveness of peri-urban agriculture responses to food security was located. One systematic review was found that considered the nutrition implications of farmers' markets and community gardens in the US (McCormack et al 2010). The authors were unable to draw any conclusions as to whether these interventions had an effect on nutrition or on dietary attitudes and practices.

Two conclusions stand out.

- Firstly, the peri-urban strategies described in the literature cannot be described as proven food insecurity prevention or amelioration measures. Rather they should be seen at this stage as strategies that can support the viability of peri-urban food production and provide generalised community benefit (as well as environmental benefits and therefore potential benefits for future food security). In many cases these strategies (especially those designed to increase the financial variability of peri-urban farmers) require adaptation to increase food access for those who are currently food insecure. Ideally social, economic and environmental goals that incorporate sustainable food production close to urban areas and community food security can all be met by supporting peri-urban agriculture but in reality, there may be times when these two different dimensions of food security do not always, necessarily complement each other.
- Secondly, the arguments about the need to retain high quality food producing land around major cities are persuasive in environmental, sustainability and long term economic terms. These long term goals clearly require national, state or at least regional action. In addition, local level action is necessary to support the viability of peri-urban food producers and ensure community food security goals can also be addressed.

What we think might work.....

The research and evaluation literature on peri-urban agriculture is relatively limited; the references that this Review located generally consist of policy and program recommendations based on case studies, expert opinion from selected stakeholders, reviews of the existing literature and some small scale surveys that assess process and to a very limited extent impact.

There are several documents that recommend that governments should articulate state, regional or local food production land preservation planning policy and should adopt a range of comprehensive strategies to implement this. These strategies include food system assessments, peri-urban agricultural land audits, and flexibility in planning provisions to facilitate agritourism and land retention for agriculture; strategies to increase income generation opportunities for local farmers (farmers markets and stalls, gourmet or organic or fresh food trails, and community supported agriculture programs), and ways of building partnerships or co-operatives and marketing these strategies.

Other strategies cover agricultural extension activities: training and education on sustainable farming practices; on ways to add value to primary produce, on how to manage waste, water and fire risks and on how to build on the business incubator potential of the farmers' markets and stalls.

The benefits of preserving or enhancing peri-urban agriculture are usually couched in terms of the economic benefits for farmers, the environmental benefits for all such as low food miles, retention of high quality agricultural land, and the financial and emergency implications of climate change, water scarcity and peak oil. Community benefits are mentioned such as the building of links between urban and peri-urban residents, between town and country residents, between farmers and customers. The health benefits of increasing consumption of fresh fruit and vegetables and making food more accessible and affordable are mentioned, however, when food access and community food security is the focus, authors tend to agree that special strategies are needed to ensure farmers markets are low cost, sited in disadvantaged communities with systems and deal in products tailored to the food interests of people living with food insecurity.

In summary what might work over the four environments for health are summarised below.

In relation to the natural environment emerging evidence suggests that planning powers could be used to preserve agricultural land and support agricultural practices. Examples include:

- Zoning support/ explicit statements in Municipal Strategic Statements re preservation of prime agricultural land in close proximity to urban areas or limitations on the extent to which land can be subdivided and sold off as hobby farms which do not produce food.

- The use of regulatory and fiscal powers to support ongoing food production in peri-urban areas, for example by facilitating the management of the urban farming interface such as agricultural noise, smell and waste management issues, fire and water issues. Curran and Stobbe 2010 note that this will be necessary; however, neither specific examples nor evidence were identified.

In relation to the economic environment: emerging evidence suggests that we could improve the financial viability of peri-urban farmers and food producers and at the same time increase accessibility and affordability of fresh food by

- Supporting the implementation of Community Supported Agriculture programs
- The creation of links between peri-urban agriculture and food banks and food rescue strategies
- The adoption of food procurement policies by hospitals, local government, schools and other institutions
- Support for farmers markets and farm stalls. However, it should be noted that these may not have any impact on food access issues for people who are food insecure unless they are tailored to the needs of socio-economically disadvantaged communities; this would include attention to place, time, price and access issues.
- The promotion of local food trails, buy local campaigns and agritourism initiatives
- Being flexible in the application of regulations re signage and road side sales to facilitate farm trails and road side sales
- Flexibility in application of Food Act requirements to facilitate production and sale of value added products such as jams and juices from fruit farms (cheaper food safety training programs, flexibility in registration of farm kitchens for food production.

Case Studies

Food Connect: A Brisbane based organisation operating on Community Supported Agriculture principles in Adelaide, Sydney and Brisbane. Food Connect sources seasonal food from local farmers (also home & community gardens, school farmers and even gleaners-people who harvest fruit growing in public space like street or park fruit trees). This is delivered to the Food Connect Homestead each week by the farmers and small freight companies. It is packed into various sizes of fruit & veggie boxes. The boxes are delivered to a network of City Cousins (families, schools or community centres) and subscribers collect their boxes from their local City Cousin and get the chance to meet like-minded

neighbours for a chat. Food Connect also organises regular farm tours to connect city folk with growers.

<http://www.foodconnect.com.au>

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Robinvale Community Growers' Market: As part of the VicHealth Food for All Program, Swan Hill Rural City Council worked to establish a monthly growers market in Robinvale a community with a significant proportion of low income residents in insecure housing. Many of the local growers were also struggling financially at the time due to drought conditions and stringent contractual conditions with the big buyers. It took several years of consistent financial and practical work to build the market into an on-going business that benefitted both growers and local residents. (Described in VicHealth 2008 *FFA Case Studies*.)

Outer Suburban/Interface Services and Development

Committee 2010: Inquiry into sustainable development of agribusiness in outer suburban Melbourne 2010 gives detailed discussion of agribusiness and green wedge issues affecting interface councils several of which are in the NWMR (Hume, Wyndham, Melton, Nillumbik and Whittlesea.)

Municipal Strategic Statements (Budge & Slade 2009: 43-44) that include a commitment to support the preservation of agricultural and food producing land in the municipality: Casey, Wyndham, Swan Hill and Moorabool Councils have all done this.

Bacchus Marsh Horticultural Area (Budge & Slade 2009: 54-56) Describes the way the Moorabool Council resisted pressure from developers to rezone prime food growing areas for sub-division and urban development.

Landshare Australia: brings together people who have a passion for home-grown food, connecting those who have land to share with those who need land for cultivating food. The concept of Landshare began in the UK in 2009 and has since grown into a thriving community of more than 57,000 growers, sharers and helpers across the country. Recently Landshare was established in Australia and its website claims 1140 members: "We welcome you to come and take part in this fantastic initiative. Landshare is for people who:

- Want to grow vegetables but don't have anywhere to do it
- Have a spare bit of land they're prepared to share
- Can help in some way – from sharing knowledge AND lending tools to helping out on the plot itself
- Support the idea of freeing up more land for growing

- Are already growing and want to join in the community”

A number of resources are provided on line to assist those interested: how to guides, a toolkit, case studies, who can help. There are also a number of case studies of school gardens, city farming and the establishment of community farms on rural land near towns.

<http://www.landshareaustralia.com.au/>

Northern Rivers Food Links is a collaborative partnership between seven Northern Rivers Councils and Rous Water that aims to secure a sustainable food future for the region. The Partnership has a budget of \$1,899,080 to implement a range of initiatives during 2010 and 2011 including

- Village showcase projects
- Marketing and education
- Distribution projects
- Food production and distribution in Indigenous communities project
- Sustainable agriculture projects
- A local government resource kit

<http://www.northernriversfoodlinks.com.au/>

Penrith Food Project is one of the longest established food security projects in Australia with the goal of “increasing and improving the supply of affordable, acceptable, nutritious and safe food to residents and workers in the Penrith LGA, with particular concern for disadvantaged groups”. The Penrith Food Project includes (among others) the objectives of conserving high quality agricultural land and increasing local production of food. Over the last 10 plus years the Project has also influenced the development of a number of other food policy projects and networks in NSW including the Sydney Fresh Food Bowl Network; Hawkesbury Food Program; and Hawkesbury Harvest.

<http://www.penrithcity.nsw.gov.au/index.asp?id=360>

Hawkesbury Harvest is described in Budge & Slade 2009: 50-52. Hawkesbury Harvest was established as an incorporated organisation in 2000 covering three local government areas (including Hawkesbury). Its strategic goals are

- Business and industry engagement in agribusiness –promotion & communications, product development, advertising, merchandising, regional branding, income generation, industry members’ education and support.

- Community engagement of agriculture-Farm Gate Trail Open Farms, Farmers and Fine Food Markets, special events.
<http://hawkesburyharvest.com.au/news.asp>

The Transition Towns movement: this movement grew out of concerns about peak oil in the late 1990s. Local government is becoming increasingly involved with a focus on increasing the local grown sustainable food supply, decreasing the use of non-renewable resources and the adoption of environmentally friendly thinking and actions at the local level. This involves Transition Town projects in working to increase and support local food production, to advocate for the reduction of food miles and the preservation of agricultural land close to towns and the building of links between town and country food producers and consumers.

The Municipal Association of Victoria has supported the spread of the Transition Town movement through local government. A quick internet scan suggest that the following areas have Transition Town groups, with variable involvement of local government: Anglesea, Banyule, Blackwood, Boroondara, Castlemaine, Darebin, Daylesford, Geelong, Maroondah, Montmorency, Phillip Island, South Barwon, St Kilda, Torquay, and Wodonga.

3.4 Regulatory and Fiscal Powers

This was the most challenging area in which to identify relevant references. Eight references were identified and are assessed in Appendix 4. These were discussion or information documents rather than research or evaluation documents. They describe ways in which local government could potentially change policy and practice (within its mandatory legislated framework) to modify regulations or fiscal imposts to support food security initiatives or remove barriers to food security strategies.

It should perhaps be noted that in this author's experience there is considerable debate about what powers local government actually has especially in relation to their capacity to levy differential rates in support of health or other policy goals. Some hold the view that the differential application of rate rebates or rate imposts to specific types of food retail outlets would amount to discrimination and cannot be done. Others are of the view that local government has this power and does exercise it in pursuit of other policy goals such as heritage preservation, reduction of gambling or alcohol access, even agricultural land preservation but is wary of exercising it.

What we know works....

Evidence and even literature is extremely limited in this area. No systematic review or even unsystematic review was located of regulatory or fiscal responses to food security. No research or evaluative report was located. What we know, or think we know, derives largely from verbally reported practice experience.

What we think might work...

There is a growing body of practical experience (usually undocumented) that indicates some of the ways in which local laws, their application and fiscal implications can be reviewed in order to support strategies designed to prevent and ameliorate food insecurity.

In relation to the built environment

- The application of environmental and building inspection powers to ensure adequate provision of food storage and food preparation facilities in licensed premises eg boarding houses, Supported Residential Services, low cost residential hotels, refuges, crisis accommodation services, caravan parks, etc.
- The size or style and location of advertising and signage of retail food outlets, farm based roadside sales, farmers markets, food stalls, mobile fruit and vegetable sales.

- Consider changes in regulations about the way community transport can be used that may hinder the provision of transport to fresh food outlets, for example, risk considerations that do not allow the carriage of food shopping in community buses.

In relation to the economic environment

- The application of variable rates for different types of food outlets. This is admittedly a challenging suggestion. The definition of outlets that can be granted variable rates may require a redefinition of the current classification of food retail premises as used by local government.
- The application of variable rates to support local food production; for example lower rates on vacant sites if used for food growing or on urban developments if food growing infrastructure is included or on peri-urban land if used for growing food. There are some limited current examples in relation to alcohol sales, gambling venues, vacant land or buildings.
- Flexibility in the application of fees in relation to signage and advertising to support road side sales, local markets, food swaps etc.
- The insertion of clauses in local government contracts to support the provision of fresh and healthy food in Council owned and contracted out premises such as leisure centres, canteens, recreational venues etc.

In relation to the natural environment, there is some potential to review regulations and their application to ensure that they support or at least do not discourage urban and peri-urban food production, for example in relation to

- Domestic husbandry and the keeping of animals associated with food production (bees, chooks or ducks etc) to ensure that regulations support safe husbandry but do not discourage local food production.
- Food production associated issues such as water and waste management, noise, smell, animal movement/transport issues etc in both urban and peri-urban areas.
- Open space regulations about street based food production such as planting of fruit trees in parks and other open spaces, feral or guerrilla gardens, domestic fruit and vegetable growing on nature strips etc

In relation to the social environment, it may be possible to review the application of regulations and fees for example in relation to Food Act responsibilities re food safety

- To educate and encourage food outlets to provide fresh and healthy food

- To support schools, community organisations, peri-urban and intra-urban food producers to handle and prepare food safely (via provision and cost of food handling training, inspection of food preparation sites) and to prepare or preserve farmed or home-grown food for sale, swap or donation
- To support food rescue and food redistribution activities.

Case Studies

Brimbank City Council modified Council bye laws to allow mobile trading of healthy food products such as fruit and vegetables on Council owned land. This enabled the Braystone mobile fruit and vegetable van to park beside a neighbourhood centre to sell produce to local residents.

Maribyrnong City Council modified parking and signage restrictions (and altered garbage pick up times) to allow the same van to trade beside a high rise public housing block for older persons.

Swan Hill Rural City Council applied healthy food clauses in the contract for management of the local council owned leisure centre to limit high sugar high fat products and to increase the sales of fresh food in the canteen. A means of ensuring compliance was also devised. Swan Hill also waived fees usually associated with signage and open space use in relation to the Growers' Market in Robinvale on the basis that the initiative is a not-for-profit venture for the benefit of the community.

Shire of Melton is considering a reduced food safety fee structure incentive for local sports clubs who adopt a healthy food policy re the operation of canteens and tuck shops.

Moreland City Council is currently pushing for its right to charge a differential rate on gambling premises operating in the city. Council has challenged all political parties and councils to support the right of local government to rate poker machine venues according to their impact on local economies. Council's stance is that local government needs funds to deliver the local services needed to help communities deal with this pervasive and growing problem of addictive gambling.

<http://www.moreland.vic.gov.au/about-council/news-media/inside-moreland/inside-moreland-summer-2011/inside-moreland-2011-pokies.html>

4. Conclusions

Four areas of potential local government action have been addressed in this Review. Limited literature presenting high level evidence has been located. A considerable amount of grey literature has been identified and selectively reviewed. Most of this is descriptive or exhortative rather than evaluative, and derives from practical experience or 'expert' opinion. Examples of action abound but in many instances this has not been documented nor formally evaluated for effectiveness.

This does not mean that we are without guidance. In many instances when an area is emergent, a strong evidence base takes time to develop and action is often going to be guided by the experience, limited evidence and the opinions of others. Food security in general, and its relationship to urban and peri-urban planning in particular are essentially still emerging issues in Australia. Food security and many of the issues raised in this paper have been on the agenda in North America for decades. However, Australian socio-demographic conditions and local, state and federal government arrangements are very different. In addition, food security has been on the agenda of the community at large and of local government in particular for less than ten years.

To some extent we are still working in the dark or perhaps it should be described as twilight. However, as this literature review has demonstrated, there are an increasing number of initiatives being tried across Australia, many of which are described as being successful by the program implementers; what is lacking is rigorous evaluation to confirm effectiveness.

4.1 Using these conclusions to guide action

Whilst we await a scientific evidence base, action can and should be based on potential impact. Choosing which strategies to adopt and which actions to implement needs to be built on an understanding of what has and is being tried elsewhere as well as on an assessment of local conditions to determine appropriateness.

This literature review gives an overview of what is being trialled. Choosing what to do in any specific location needs to be based on an assessment which should include consideration of the following:

- The nature and characteristics of the local area and the opportunities and/or challenges these present, for example
 - geographic location, population density, socio-demographic profile of residents, business profile, land use profile etc;

- congruence of the strategy with the aspirations and priorities of local residents, business and community organisations and the extent to which partnerships are possible to advocate for and implement the strategies;
- congruence of the strategy with stated Council goals and objectives contained in key policy and planning documents such as the Council Plan, the Municipal Strategic Statement and the Municipal Health and Wellbeing Plan or any plans or strategies at lower levels such as Transport, Housing, Leisure and Recreation, Early Years, Open Space, Diversity, Inclusion, Business Development, Environment, Sustainability etc;
- The extent to which there is a broader groundswell that can support the strategy (such as the broader community, state and federal government, regional bodies, key peak bodies or advocacy groups etc);
- Whether a regional response rather than (or in concert with) a local response may be more effective than implementation of strategies by individual Councils.
- The establishment of well articulated goals and objectives for the intervention /strategy and the capacity to include an evaluation strategy to gauge effectiveness in the short and medium term.
- Finally, because comprehensive, sustained strategies are more likely to be effective it is important to assess the capacity to implement multi-level long term responses rather than short term, narrowly targeted single level strategies.

4.2 Recommendations

It should be remembered that these recommendations do not necessarily reflect the level of evidence that is currently available of the effectiveness of particular approaches or strategies. Rather they are drawn from the growing body of practice experience and expert opinion as well as the limited "scientific" evidence on which we can draw.

1. Strategic and comprehensive approach that recognises and responds to the specific challenges faced by population groups with high levels of food insecurity

A strategic and comprehensive approach to tackling food security is necessary, locally, regionally, and at the state and federal level. What this review of the literature suggests (except perhaps in relation to South East Queensland) is that whilst Australia has had a flowering of action, often driven by community activism or in some

cases by local government, this has generally not been comprehensive, multi-level or strategic.

It is also important to maintain a focus on disadvantage; otherwise seemingly useful strategies may make little or no difference to the most food insecure, or may even make their situation worse.

2. Regional and state wide response

The capacity of local government to act directly can be limited especially in relation to aspects of urban planning (retail mix, public transport etc) and peri-urban agriculture. In these areas in particular, two avenues could be pursued

- action at the regional level and
- advocacy for action directed to state and federal governments.

3. Practice guidelines for local government

Local government could find it valuable to have access to practice notes or guidelines containing a digest of the relevant literature as well as advice on how to take action on specific areas: eg food security and transport, food security and urban food production; food security and peri-urban agriculture, food security and intra-council advocacy and community development; food security and community partnerships (around food growing, food literacy, food redistribution etc). The work done by the University of Minnesota is put forward as a valuable model.

4. Analysis of the legal framework - specifically planning, regulatory and fiscal powers

Local government in Victoria could also benefit from a detailed analysis of the legal, regulatory and fiscal powers that it actually has in relation to food security and the built environment, peri-urban agriculture, transport etc. Ideally, such an analysis would identify where existing planning provisions, regulatory and fiscal factors act as barriers to food access especially for disadvantaged populations.

5. A funding stream for food security projects

An on-going funding stream that is targeted to the initiation, maintenance and evaluation of community food security projects could usefully support the development of practice experience and evaluative evidence of effectiveness. The funding program by the United States Department of Agriculture for community food

projects provides a potential model. Awareness of the need for a consistent funding program grows is evident in the recommendation from the Prime Minister's Science, Engineering and Innovation Council that a National Food Security Council be established and that this body co-funds partnership projects with local, state and territory governments to support community driven developments in food production (PMSEIC 2010:67).

6. Rigorous evaluation evidence

As the relative dearth of rigorous scientific evaluation suggest, we need to build up a body of high level evaluation of food security interventions. The capacity of the key players in this field in local government, community health and welfare is relatively restricted. Funds and expertise are required to ensure that the design and implementation of food security interventions incorporate evaluation.

7. Documentation of practice experience

At the same time as there is a lack of rigorous evaluation, there also seems to be a lack of documentation of existing examples of food security interventions and the methods used to get them underway in local government. Again, funds, mentoring and expertise are needed to support this.

8. Potential role of a food policy council

There may well be a role for a food policy type council at regional or local level. Whilst trawling the literature, this reviewer has become aware of the important role food policy councils have had in many places, most notably in North America. They have been active in advocacy, lobbying, summarising research, reviewing literature, developing practice guides, building up partnerships, providing expert advice to government and non-government and community, initiating and /or implementing programs etc (Schiff 2008).

Effective Food Policy Councils can be an engine for research, policy and action; examples include

- In the US where the Community Food Security Coalition has played a n important role in research, education and raising awareness.
- In Canada where the City of Toronto co-sponsors the Toronto Food Policy Coalition.
- In NSW the Sydney Food Fairness Alliance and Food Fairness Illawarra (SFFA no date).

- In Tasmania food insecurity has been explicitly adopted as an indicator of social inclusion and the state government's Department of Premier and Cabinet Social Inclusion Unit has recently established the Tasmanian Food Policy Council (DPC 2010).

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Appendix 1: Local Government and Urban Planning

1. Reference Yellow highlight indicates reference is based on Australia material	2. Scope	3. Conclusions	4. Nature & strength of the evidence & comments	5. Relevance to Environments for Health & LGA Divisions
<p>Donovan J. Larsen K. McWhinnie J. 2011 <i>Food-sensitive planning & urban design: A conceptual framework for achieving a sustainable & healthy food system.</i></p> <p>Melbourne: Report commissioned by the & National Heart Foundation of Australia (Victoria Division).</p>	<p>A document that advocates for the adoption of food sensitive urban design in our cities. Includes</p> <ul style="list-style-type: none"> ○ Definition of food sensitive planning & urban design (FSPUD) ○ Ideas about how to go about putting FSPUD into practice & role of various local govt strategies, policies & planning processes ○ Links these to various references & to case studies and precedents to illustrate how this can be achieved. 	<p>Suggest applying FSPUD to 3 steps in the planning process</p> <ol style="list-style-type: none"> 1. Strategic planning– decisions about long term use of areas of land. Issues: <ul style="list-style-type: none"> ○ Impact on amount & viability of productive land ○ Interface issues between agricultural land & other uses ○ How people living/working in the area will access food 2. Statutory planning– decisions about the specific use & development of parcels of land. Issues: 	<p>Low evidence based on expert opinion linked to selected references & Australian and overseas case studies</p> <p>DH: 5 Daly: IV</p>	<p>Built & Natural</p> <p>Planning</p> <p>Environment/Sustainability</p> <p>Business/ Economic Development</p>

		<ul style="list-style-type: none"> ○ Interface issues with agricultural land ○ Does the development facilitate food choices? <p>3. Public realm design- opportunities to make sure public space incorporates issues of food availability & access. Issues include:</p> <ul style="list-style-type: none"> ○ Does the subject area increase positive exposure to food? ○ Does the space encourage development & use of diverse food outlets? ○ Does the subject area facilitate the celebration & sharing of food knowledge & culture? 		
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<p>Kent J. Thompson SM. & Jalaludin B. 2011 <i>Healthy Built Environments: A review of the literature.</i></p> <p>Healthy Built Environments Program, City Futures Research Centre, University of New South Wales. Sydney.</p> <p>http://www.fbe.unsw.edu.au/cf/hbep/publications/</p>	<p>This extremely detailed and lengthy UNSW review of the literature covers 3 aspects of the built environment:</p> <ol style="list-style-type: none"> 1. The built environment & getting people active. 2. The built environment & connecting & strengthening communities 3. The built environment & healthy food options. <p>The third is the section reviewed here.</p> <p>The 55 page annotated bibliography provides a wide range of valuable material with considerable detail.</p>	<p>Further research needed:</p> <ol style="list-style-type: none"> 1. Detailed, contextual research on the impact of healthy food accessibility & health in Australia 2. The impact of lost urban agricultural land 3. The co-location of food advertising & food outlets <p>Policy implications of the literature around healthy food options reads: "The most convincing literature concerns the co-location & advertising of unhealthy food options near schools. Policies to reduce fast-food exposure in the vicinity of school environments are justified." "Given the relative</p>	<p>Moderate evidence based on review of the literature.</p> <p>The authors note the lack of good evidence in many areas (see key messages in previous column) and notes that we need more research particularly in the Australian context.</p>	<p>Built, Economic & Natural</p> <p>All local govt divisions especially Planning & economic development</p>
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		<p>dearth of research on the impact of the built environment on healthy eating options in an Australian context, it is difficult to recommend further policy change beyond that already discussed for encouraging physical activity.”</p> <p>Key messages from the review of the literature around healthy food options are</p> <p>Food Accessibility – Generally</p> <p>“There is a logical link between exposure to healthy food options & healthy eating, with research suggesting that access to a supermarket or other reliable source of fresh, healthy produce will improve dietary intake. Attempts to</p>		
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		<p>quantify this relationship, however, have been based on mixed methods & have produced mixed results.”</p> <p>Food Accessibility and Socio- Economic Status</p> <p>“Studies have consistently shown that access to healthy food is more difficult in lower SES areas. The majority of this research has been undertaken in the USA. Detailed studies on actual accessibility to, & variety within food environments in lower SES areas in Australia are required.”</p> <p>Land Use Around Schools</p> <p>“There is convincing evidence that regulation of land use around schools can assist in reducing child & adolescent access</p>		
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		<p>to unhealthy food options. Nevertheless, further studies of the food environment around schools in Australia are required.”</p> <p>Farmers’ Markets and Community Gardens</p> <p>“The link between exposure to community gardens and farmers’ markets, with increased consumption of fresh fruit and vegetables, is obvious although difficult to quantify. Markets and gardens also facilitate community interaction and physical activity. They are an extremely valuable element of a healthy built environment.”</p> <p>The Built Environment and Larger Scale Food Production</p>		
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		<p>"Urban agricultural lands play an important part in the production and supply of healthy food to urban areas in Australia and should be protected."</p> <p>The Built Environment & Mass Media Advertising</p> <p>"In light of the comparative dearth of literature, particularly in an Australian context, on the impact of advertising signage on healthy food choices, this is an area that is under researched."</p>		
<p>VicHealth 2011 <i>Food for All 2005-2010 Program evaluation report.</i></p> <p>Victorian Health Promotion Foundation. Melbourne.</p> <p>Also a set of resources (information sheets and micro movies) that derived from FFA the evaluation entitled <i>Ten ways local government can act on food security.</i></p> <p>Available from: www.vichealth.vic.gov.au</p> <p>And an evaluation of the efficacy of these resource</p>	<p>A report highlighting the findings of the 5 year Food for All Program funded by VicHealth through local govt. Program goals</p> <p>1. To reduce local government systemic & infrastructure barriers to food security</p> <p>2. To increase access</p>	<p>1. Lengthy process of information provision, education & awareness raising lead to cultural change in councils: FS moving onto local govt agendas & increasingly incorporated</p>	<p>Low evidence based on qualitative research design, no controls or comparison groups</p> <p>DH 4 Daly: III</p>	<p>All 4 environments</p> <p>All local govt divisions</p>

<p>documents currently being carried out by the University of Melbourne.</p>	<p>& consumption of healthy food by people living in disadvantaged communities.</p> <p>Limitations in before & after data restricted the assessment of these goals</p>	<p>into formal policies & plans, & into action strategies</p> <ol style="list-style-type: none"> 2. Increased knowledge about barriers to FS experienced by people living in disadvantaged communities 3. Many strategies tried (not all successfully) in food literacy, food supply issues (emergency food relief, enhanced meals on wheels, café meals, markets, healthy restaurant meals, mobile food sales etc), local food production (communal & domestic gardening) & community transport. By end of 5 years councils 		
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		<p>beginning to consider strategies in urban planning, peri-urban agriculture.</p> <p>4. Local govt limited in addressing many barriers because of constricted powers in urban planning especially retail mix & density, public transport, food pricing, housing affordability etc.</p> <p>Conclusions</p> <p>1. Better base line data needed for adequate evaluation of impact & outcome of FS interventions</p> <p>2. State & national action required to tackle major FS barriers. Local govt can play an advocacy role in this.</p> <p>3. Integrated approaches</p>		
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		<p>necessary at local, state & national level</p> <p>4. Local strategies need to be based on local data & evidence, & tailored to meet local needs, conditions & partnerships.</p>		
<p>White H & Natelson S. 2011 <i>Good planning for good food: How the planning system in England can support healthy and sustainable food.</i></p> <p>Sustain: The Alliance for better food and farming http://www.sustainweb.org/publications/?id=192</p>	<p>A report by Sustain an alliance (or food policy council that represents 100 national public interest organisations) that advocates for food & agriculture policies & practices that enhance the welfare of health & welfare of humans & animals. The report is designed</p> <ol style="list-style-type: none"> 1. to inform planners & associated professionals about the importance of incorporating food into their work 2. asses the importance of current planning system to help 	<p>Report says local authority (or local government in the Australian context) planners & associated professionals (in health, environment, economic & property development) can act by creating a policy framework that will support sustainable food system locally & integrate sustainable food into local planning & development decision making, especially</p> <ol style="list-style-type: none"> 1. To protect & increase both the number & 	<p>Low evidence based on expert opinion linked to selected references & studies</p> <p>DH: 5 Daly: IV</p>	<p>Built & Natural</p> <p>Planning</p> <p>Environment/Sustainability</p> <p>Business/ Economic Development</p>

	<p>create more sustainable food & agricultural systems</p> <p>3. highlight some initiatives that already include food & farming policy & practice.</p>	<p>diversity of types of food retail outlets – such as small shops & markets locally & within easy walking distance of communities, or by public transport.</p> <p>2. To create & protect food growing spaces in & around a locality. Allotments, community growing spaces & a range of other under-utilised public & private space could be used to increase the availability of healthy & sustainable food by expanding the space allocated for food growing.</p> <p>3. To discourage food waste, & stimulate productive &/or environmentally</p>		
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		<p>benign ways of using unavoidable food waste.</p> <p>4. To support jobs in the food & farming sector by encouraging small & medium-sized food enterprises such as markets & on-site farm shops, & local & regional distribution infrastructure.</p>		
<p>Good E, Hammond M. Martin C. Burns C. & Groos A. 2010 An audit of local government planning tools for their potential use in addressing community food and nutrition issues. In <i>Health Promotion Journal of Australia</i> 2010: 21 (1) 5-11</p> <p>Note that this work is also reported on in Good et al 2006 see below.</p>	<p>This article reports on an audit of Queensland's legislative & non-legislative local government planning tools to assess their potential use in addressing strategies to achieve positive nutrition outcomes.</p> <p>Planning tools at state, regional & local level were considered in the following groupings:</p> <p>Legislated frameworks</p> <ul style="list-style-type: none"> o Local government 	<p>Ten strategies were identified</p> <ol style="list-style-type: none"> 1. Increase access & availability of healthy food choices within the community 2. Establish workplace healthy eating environments & policies 3. Establish healthy catering at events & festivals 4. Decrease fast- 	<p>Low evidence based on expert opinion</p> <p>DH: 5 Daly: IV</p>	<p>All 4 environments</p> <p>All local govt divisions</p>

	<p>planning schemes</p> <ul style="list-style-type: none"> ○ Corporate plans & operational plans ○ Local laws ○ Regional plans ○ State planning policy <p>Non-legislative processes</p> <ul style="list-style-type: none"> ○ Community public health planning ○ Community renewal ○ Health impact assessment 	<p>food availability & fast-food outlet density</p> <ol style="list-style-type: none"> 5. Increase public breastfeeding facilities & workplace policies 6. Modify outdoor food advertising to increase healthy food promotion & decrease unhealthy food promotion 7. Increase drinking water fountains in public areas 8. Protect urban agriculture & horticulture 9. Increase community cooking facilities 10. Modify individual housing designs to ensure adequate food storage & preparation areas <p>The audit found that all 10 strategies could be</p>		
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		<p>considered through 3 or more of the planning tools & concluded that local government planning tools do provide opportunities to address food & nutrition issues & can contribute to the creation of physical & policy environments that support healthy eating behaviours.</p> <p>The paper describes a number of barriers local government faces to the use of the planning tools to address food & nutrition issues:</p> <ul style="list-style-type: none"> ○ Food & nutrition issues are not considered a high priority for Queensland local councils (see Pretorius 2008). ○ When councils do invest in this area it tends to be limited in scope to individual- 		
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		<p>focused nutrition education or food hygiene audits.</p> <ul style="list-style-type: none"> ○ Health practitioners' ability to engage councils is hindered by a lack of familiarity with local government legislation, urban planning tools & processes & the way councils work in general. ○ Councils also face insufficient funding & staffing levels, they are reluctant to expand their functions, & non-mandatory public health planning. 		
<p>SGS Economics & Planning July 2010 <i>An evaluation of planning systems – Barriers to entry for grocery retailing.</i></p> <p>Prepared for the Commonwealth of Australia Department of Treasury.</p>	<p>Explores the planning systems in all Australian states to determine the extent to which the traditional focus on</p>	<p>Concludes that jurisdictions should consider the following in reforming their planning systems:</p>	<p>Low evidence based on review of relevant literature & detailed case</p>	<p>Built & Economic Planning Economic /Business development</p>

	<p>centralised activity centres as a foundation element of metro & regional planning strategies is creating a regulatory barrier for would-be entrants to the grocery retail sector.</p> <p>Based on the premise that current planning systems can have an anti- competitive impact which in turn can have an impact for communities & customers in terms of lower prices & greater access. Also the push for greater residential density & walkability & a hierarchy of activity centres needs changed planning systems.</p> <p>Discusses the barriers to entry in grocery retailing:</p> <ul style="list-style-type: none"> ○ Regulatory practices ○ Land use regulation ○ Competitive outcomes 	<ol style="list-style-type: none"> 1. Elaborating & publishing their retail policy frameworks on a nationally harmonised basis, highlighting performance objectives 2. Regularly undertaking a supply & demand review to determine if there is enough commercially zoned land on a regional basis 3. Reviewing the wording of current strategic planning & policy documents to ensure that anti-competitive statements are not included within these regulations & supporting materials 4. Ensuring the definition of 'retail' is 	<p>studies of each state planning systems & how these can act as barriers to competitive grocery retailing that meets the economic & health needs of communities. Conclusions then based on expert opinion.</p> <p>DH: 6 Daly: II</p> <p>NB document appears to concentrates on larger grocery stores (especially ALDI which it shows can reduce prices in the area) & not on small scale mixed businesses or fresh fruit & veg stores.</p>	
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	<p>Gives case studies of barriers to entry (including Aldi Development in City of Greater Geelong).</p> <p>Discusses how planning frameworks can be amended to reduce barriers to entry.</p>	<p>sufficiently broad to incorporate innovative retail formats</p> <ol style="list-style-type: none"> 5. Adopting a nationally consistent methodology in all planning regimes for sequentially testing the net community benefit offered by proposals which do not immediately comply with centres policy 6. Promoting land assembly policies in activity centres to facilitate the entry or expansion of competitors & to monitor land banking 7. Discouraging development assessment 'gaming' by requiring greater transparency on the part of 		
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		decision authorities & appellants on their reasons (on net community benefit grounds) & by the awarding of punitive costs for vexatious appeals.		
<p>Queensland Government & Heart Foundation. 2010 <i>Active Healthy Communities A resource package for local government to create supportive environments for physical activity and healthy eating.</i></p> <p>http://www.activehealthycommunities.com.au</p>	<p>One of the practical outcomes of The Supportive Environments for Physical Activity & Healthy Eating Project (see Pretorius 2008 & Good 2006 see below).</p> <p>The on-line Package has sections on</p> <ul style="list-style-type: none"> ○ The rationale for action by local govt ○ Corporate plans ○ Operational plans ○ Planning schemes ○ Local law and policy matters ○ Geographical Information Systems (GIS) and analysis tools 	<p>A practical guide that includes a suite of tools covering:</p> <ul style="list-style-type: none"> ○ tips on how to create a community garden program ○ how to develop an Active School Travel Plan ○ draft codes for community gardens, breastfeeding & baby-care facilities, walking & cycling facilities, & end-of-trip facilities for walking and 	<p>Low evidence based on expert opinion, practice experience & the Good (2006) literature review</p> <p>DH: N/A as a practice guide Daly:</p>	<p>Mainly Built and Natural Planning Environment/Sustainability</p>

	<ul style="list-style-type: none"> ○ Funding and award opportunities 	<p>cycling</p> <ul style="list-style-type: none"> ○ a checklist on best-practice neighbourhood design including principles for sustainable environments for physical activity ○ how & where to collect data on food accessibility, open space inventories, walking conditions and creating My Neighbourhood maps for your council ○ case studies to demonstrate state, national, & international examples of council actions. 		
<p>Parliament of Victoria. Outer Suburban Interface Services & Development Committee. 2010 <i>Inquiry into sustainable development of agribusiness in outer suburban Melbourne.</i></p> <p><i>Parliament House. Victoria.</i></p>		<p>Rec 81 reads the Victorian Government partner with the Victorian Eco-Innovation Lab, local government and other stakeholders to</p>	<p>Low evidence base on background literature review, expert opinion & some case studies.</p>	

		pilot an urban development project based on 'food sensitive urban design' principles in an outer suburban location.		
<p>Truehaft S. & Karpyn A. 2010 <i>The grocery gap: Who has access to healthy food & why it matters.</i> PolicyLink & The Food Trust. USA.</p>	<p>Review of 61 peer reviewed journal articles (by uni-based researchers); 71 grey literature papers (by practitioners or policy researchers sometimes in collaboration with academic researchers).</p> <p>Paper reports on conclusions of studies examining access to healthy food in the US published over the past 20 years.</p>	<p>1. Accessing healthy food is a challenge for many, particularly those living in low-income neighbourhoods, communities of colour & rural areas. Reasons are:</p> <ul style="list-style-type: none"> • Lack of supermarkets • Lack of healthy high quality food in nearby food stores • Predominance of convenience/corner /liquor stores • Lack of transport to stores. <p>2. Better access to supermarkets or more healthy food in neighbourhood food stores corresponds to</p>	<p>Moderate evidence based on non-systematic literature review by 2 not-for-profit agencies: PolicyLink - a national research & policy institute & the Food Trust – an advocacy organisation working to ensure everyone has access to affordable, nutritious food.</p> <p>DH: 3 Daly: I</p>	<p>Built, Economic & Natural Planning, Environment/Sustainability Business/ Economic Development</p>

		<p>healthier eating.</p> <p>3. Access to healthier food is associated with lower risk of obesity & other diet related disease.</p> <p>4. New improved healthy food retail in under-served communities creates jobs & helps revitalise low-income neighbourhoods.</p> <p>4. Strategies to increase access are</p> <ul style="list-style-type: none"> • Attract or develop supermarkets • Develop other retail outlets, eg markets, mobile vendors, farm stands & community supported agriculture programs • Increase fresh food sold in neighbourhood stores • Grow food locally through backyard or community 		
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		gardens & larger scale agriculture <ul style="list-style-type: none"> • Improve transport to grocery stores & markets. 		
<p>Clark R. Armstrong R. Waters E. 2010 <i>Local government and obesity prevention: An evidence resource. Interventions to prevent obesity in early years settings; tackling food insecurity and built environment changes to support physical activity</i></p> <p>CO-OPS Secretariat, Deakin University, Geelong</p>	<p>Contains 3 evidence summaries “providing an up-to-date overview of the best available research evidence around ‘what works’ in tackling the determinants of obesity with recommendations for action and building the evidence-base.”</p> <p>The topics of the 3 evidence summaries are:</p> <ol style="list-style-type: none"> 1. Interventions to prevent obesity in early years settings 2. Tackling food security at the local government area level 3. Changing the built environment to support physical activity <p>The food security evidence summary is</p>	<p>“There is a distinct lack of research evidence examining ‘what works’ to tackle food insecurity within the capacity of local government”</p> <ol style="list-style-type: none"> 1. Policy level interventions such as pricing policies are most likely to have a population wide impact & only role for loc govt is in advocacy to state & federal govts. 2. Community level interventions: community gardens & kitchens may be useful in building social capital & improved mental & 	<p>Low evidence based on systematic review of reviews & meta-analyses.</p> <p>Author reports that reviews were of mixed quality; 5 gauged as providing low level of evidence, & 5 giving moderate evidence.</p> <p>This paper considers systematic reviews only & so does not cover single references or any grey literature.</p>	<p>Built, Economic & Natural Planning, Environment/Sustainability Business/ Economic Development</p>

	<p>based on the findings of 10 systematic reviews (one of which was a meta-analysis) published between 2000 & 2010:</p> <ul style="list-style-type: none"> ○ 5 reviews of policy/environmental interventions ie price elasticity, food taxes & nutrition labelling ○ 3 community interventions ie interventions to increase F&V consumption, garden based youth nutrition programs & community kitchens ○ 2 individual interventions ie nutrition education 	<p>emotional wellbeing but are unlikely to address food insecurity, particularly if implemented in isolation</p> <p>3. Individual level interventions: Nutrition education, if tailored, has a potential role in improving knowledge of healthy eating</p> <p>Author concludes that the extent to which local govt could or should tackle food insecurity is unclear & evidence around what could be effective is insufficient. Calls for well planned & logically thought through policy & program interventions with quality evaluation</p>		
<p>Ostry A. 2010 <i>Food for thought: The issues & challenges of food security.</i> Provincial Health Services Authority, British Columbia</p>	<p>The document aims to provide "easy access to current evidence sourced</p>	<p>Canadian research suggests</p> <p>1. Clear links between FS,</p>	<p>Low evidence based on non-systematic literature</p>	<p>All Planning Environment/Sustainability</p>

<p>Canada.</p>	<p>from peer reviewed research & other credible publications, to inform the development of programs & policies” that address food security in BC Canada. 7 topics covered</p> <ol style="list-style-type: none"> 1. FS economic wellbeing & health, 2. FS & climate change in BC 3. Climate change, food imports & FS in BC 4. Impact on BC agriculture of global warming 5. Food miles & climate change 6. the built environment, local government & FS 7. School food environments & FS <p>Based on a series of literature searches using a basic set of keywords to identify major papers published in areas linking food security & health, economic</p>	<p>income security & health</p> <ol style="list-style-type: none"> 2. Climate change will have a difficult to assess impact on FS in BC through increasing severity of weather events, land & water degradation, biological changes & dislocation of rural communities 3. The local BC food system relies heavily on imports & is vulnerable to climate change impact 4. BC needs to focus on greenhouse gas (GHG) emissions from agriculture to reduce impact on climate change 5. Care needs to be taken in relation to a narrow focus on 	<p>review combined with expert opinion, case studies, & illustrative references</p> <p>Exemplar rather than evidence (DH 5/6: Daly III)</p> <p>Local Canadian literature reviewed, potentially of relevance to Victoria.</p>	<p>Business/Economic Development Community Services</p>
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	<p>well-being, climate change & the built environment. Once identified, articles were selected for perceived relevance based on title & imported into the database. Each abstract was then examined for relevance. Well over 500 articles were reviewed</p>	<p>food miles in BC. A reduction in miles may lead to an increase in GHG emissions. More detailed data need to identify best strategies.</p> <p>6. Considered 4 aspects of FS & the built environment: physical design & spatial distribution of retail food outlets, housing, urban agriculture & the school nutrition environment. Conclude it is difficult to draw conclusions even after reviewing extensive research on proximity, location & spatial distribution of food outlets. Smaller Canadian studies appear to indicate that</p>		
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		<p>availability & access to food are reduced when neighbourhoods do not have easily accessible outlets that sell healthy food. This is more common in lower income neighbourhoods . Identifies a number of recent initiatives to facilitate urban agriculture & support backyard & rooftop gardens, greenhouses & community plots, & to run farmers' markets, proven to be good for people & local economies. Local govt has a major role to play in making urban spaces more agriculture-</p>		
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		<p>friendly, notably through enhanced planning & bye law modifications. Expansion of urban agriculture & preservation & expansion of peri-urban & rural lands will increase the food security of BC. A regional approach looks likely to be most effective.</p> <p>7. The built environment improvements that research supports are: establishing parent & staff nutrition committees in schools, ensuring that fundraisers use healthy food, reducing or eliminating vending machines that offer unhealthy choices & ensuring</p>		
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		cafeterias & tuck shops offer healthy food choices		
<p>Slade C. 2009 <i>The role of local government in food security: A literature review; City of Banyule & City of Darebin.</i></p> <p>Community Planning & Development Program. La Trobe University.</p>	<p>Describes what FS is, who is at risk, food system factors, determinants of food insecurity, local responses, the role of local government especially in relation to partnerships, education & promotion & support; community participation; integrated planning, land use /, transport / open space planning as well as business & economic development.</p> <p>Includes a number of international & local "best practice examples" including egs of action in Brisbane & Penrith & among Victorian Food For All LGAs</p>	<p>Paper concludes that food security is an "imperative contemporary issue"; federal & state governments not taking sufficient measures in legislation & policy. Action largely at the local government level. Author advocates inclusion of food security principles into integrated council policies across the 4 Environments for Heath.</p> <p>Partnerships said to be the key to implementation of these.</p>	<p>Low evidence based on a non-systematic literature review on FS & an overview of "trends, issues & solutions internationally & in Australia"</p> <p>DH: 6 Daly: III</p> <p>No evidence of effectiveness, limited descriptive comments on documents selected on an unclear basis</p>	<p>Mainly built & natural</p> <ul style="list-style-type: none"> • Strategic, Social & Urban Planning • Environment/Sustainability • Business / Economic Development
<p>Budge T. Slade C. 2009 <i>Integrating land use planning & community food security: A new agenda for government to deliver on sustainability, economic growth & social justice.</i></p>	<p>Results of a VicHealth funded project to examine the links between food</p>	<p>Argues strongly for action by local & state govts.</p>	<p>Low evidence based on expert opinion based on non-</p>	<p>Mainly built & natural</p> <ul style="list-style-type: none"> • Strategic, Social & Urban Planning

<p>Prepared for the Victorian Local Governance Association by the Community Planning & Development Program. La Trobe University</p>	<p>security & land use planning Contains brief descriptive "literature review", findings from local government consultations around Victoria, a critique of the "efficacy of the Victorian land use system & food security", & 5 case studies of "global best practice in food security & land use planning".</p> <p>One Victoria case study is local govt action to retain highly productive horticultural river flats at Bacchus Marsh</p>	<p>Recommends a number of policy steps for the state govt to take up leadership in role in food security, & to amend the land use planning system, especially the State Policy Planning Framework</p>	<p>systematic literature review, case studies, policy analysis & stakeholder consultation.</p> <p>Exemplar rather than evidence (DH 5/6: Daly III)</p> <p>Completely relevant to the Victorian context</p>	<ul style="list-style-type: none"> • Environment/Sustainability • Business / Economic Development
<p>Pretorius J. 2008 <i>Supportive environments for physical activity & healthy eating project, Phase One: Options paper.</i></p> <p>Heart Foundation & Queensland Government: Brisbane, Queensland.</p>	<p>Documents the outcomes of Phase 1 of a project (Queensland Govt Eat Well Be Active Taskforce) designed to guide & assist local governments in Qld to create environments that support increased PA & improved nutrition.</p> <p>Contains a detailed</p>	<p>Workshop outcomes:</p> <ol style="list-style-type: none"> 1. Advocacy required to include HE in Council priorities based on evidence & case studies 2. Local & state govt land use planning & policy needs integration 	<p>Low evidence based on expert opinion based on non-systematic literature review, stakeholder consultations & policy analysis.</p> <p>Exemplar rather than</p>	<p>Built & Natural,</p>

	<p>report of</p> <ol style="list-style-type: none"> 1. A desk top study & survey of local govt in Qld which generated 2. A set of options & tools for addressing PA & HE in local govt 3. A stakeholder workshop with reps from local & state govt, industry, professional assoc, tertiary institutions & NGOs to comment on the options 4. Recommendations arising from the above. 	<ol style="list-style-type: none"> 3. Incentive schemes needed to require or support development industry to support PA & HE sensitive design. <p>Recommendations</p> <ol style="list-style-type: none"> 1. Need to develop practical guidelines for how to integrate PA & HE into existing options & tools available to local govt. 2. Need to implement a communication strategy to galvanise local govt into action. 	<p>evidence (DH 5/6: Daly III)</p> <p>Emphasis on PA rather than HE: gives table of options for local govt that could be adapted to Victorian context.</p>	
<p>Burke M. Hatfield E. Pascoe J. 2008 <i>Urban planning for physical activity and nutrition: A review of evidence and intervention</i></p> <p>Griffith University. Urban Research Program: Research Paper 22.</p>	<p>This review was part of the Queensland Eat Well Be Active Taskforce project described above in Pretorius 2008. However, in contrast to the above (which looked at what local government could</p>	<p>This document notes that they "uncovered more studies linking the built environment to nutrition than they expected, however the evidentiary support is more limited</p>	<p>Low to moderate level of evidence.</p>	<p>Mainly built & natural</p> <ul style="list-style-type: none"> • Strategic, Social & Urban Planning • Environment/Sustainability • Business / Economic Development

	<p>do), the Burke et al report looks at what the state government could do to address supportive environments. There is a lot of overlap and similar content in both references.</p>	<p>than that obtained for physical activity. In particular there are few studies demonstrating a casual relationship between the built environment & eating behaviours. And other than for interventions such as community gardens there has been little research testing built environment interventions for nutrition. More research & evaluation is a pressing need.”</p> <p>The paper identifies transportation & active transport, land use planning & nutrition as the key areas for state & national government action.</p> <p>They note that nutrition interventions could include (tho they acknowledge the evidence base s</p>		
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		limited) <ul style="list-style-type: none"> ○ Policy co-ordination & integration & establishment of food policy councils ○ Land use planning interventions to support food production ○ Limiting the number & density of fast food outlets & their distance from schools ○ Charging fees to fast food outlets to mitigate impact of poor nutritional content ○ Prohibiting drive through service ○ Limiting advertising & signage 		
Enns J. Rose A. de Vries J. Hayes J. 2008 <i>A seat at the table: Resource guide for local governments to promote food secure communities.</i> Provincial Health Services Authority. British Columbia. Canada	A guide to assist local governments in BC to promote food security & support the local food system. 7 types of initiative covered	Concludes 1. All these initiatives have food security, social & economic benefits 2. All are doable &	Low evidence based on expert opinion, case studies, practice experience & illustrative	All Planning Environment/Sustainability Business/Economic Development Community Services

	<ol style="list-style-type: none"> 1. Community gardens 2. Farmers' markets 3. Neighbourhood planning 4. Support for local food production 5. Healthy food in public buildings 6. Creating community capacity 7. Assessments, charters & policies <p>Each section includes commentary on</p> <ul style="list-style-type: none"> ○ Why action is needed ○ How communities benefit ○ How local govt can take action ○ A community case study <p>Provides references for more information</p>	<p>local govt can play a role</p> <ul style="list-style-type: none"> ○ by using their land use planning powers to identify, zone or designate sites for food production/retail etc, ○ by educating about, promoting & providing resources to support food security initiatives ○ by building partnerships with other community stakeholders, developers, food producers, retailers ○ by including food security ○ by undertaking food assessment into plans & policies or develop charters or policies 	<p>references</p> <p>Exemplar rather than evidence (DH 5/6: Daly III)</p> <p>Largely of relevance to Victorian context.</p>	
<p>Dixon J. Omwega AM. Friel S. Burns C. Donati K. Carlisle R. 2007</p>	<p>This article focuses on exploring the</p>	<p>Identifies 7 major national &</p>	<p>Low level of evidence</p>	

<p>The health equity dimensions of urban food systems.</p> <p><i>In Journal of Urban Health: Bulletin of the New York Academy of Medicine. Vol 84, No. 1 i118- i1129.</i></p> <p>http://www.ncbi.nlm.nih.gov/pubmed/17401697</p>	<p>determinants of the inequalities in food security that is an increasing feature of cities. They” synthesize a broad sweep of literature to develop a theoretical map of the food system determinants of health inequities & nominate 7 key determinants of urban nutrition status.” Three case studies are given, one of which is Melbourne</p> <p>.</p>	<p>household level determinants of urban nutritional inequalities.</p> <ol style="list-style-type: none"> 1. Decline in national food self sufficiency 2. Displacement of local food retailers, encouraged by marketplace activities of corporate chains 3. Global food safety policies that impact negatively on small food producers, retailers & poorer customers 4. Food system dynamics that favour processed, high energy foods 5. Urban planning & car transport 6. Multiple source of advice fuels consumer food anxieties 	<p>based on selective literature review</p>	
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<p>University of Minnesota 2007 Design for Health. <i>Key questions: Food access.</i> Version 2.0.</p> <p>University of Minnesota 2007 Design for Health. Planning Information Sheet <i>Promoting food access with comprehensive planning and ordinances.</i> Version 2.0.</p> <p>www.designforhealth.net</p>	<p>Design for Health is a collaboration between the University of Minnesota & Blue Cross & Blue Shield of Minnesota that bridges “the gap between the emerging research base on community design & healthy living with the everyday realities of local government planning.”</p> <p>Key questions: food access presents:</p> <p>1. Things we know for certain (or semi-certain)</p> <ul style="list-style-type: none"> ○ Poor people & people of colour live in environments that, compared to middle class areas, are less likely to have access to supermarkets & other venues selling a variety of higher quality food items, also such places have more fast food restaurants & alcohol outlets ○ Planners should not assume access to supermarkets is the only aspect linking food & planning; they should also consider improving the quality of food sold in other smaller food venues. ○ Fast food outlets tend to cluster around schools ○ Poorer people have fewer transportation options & may be more reliant on local food sources than those with easy access to cars ○ Poor people often eat less nutritious food 	<p>Key questions: food access concludes that access to healthy food is the key issue; particularly for those without cars. A conservative threshold measure would be to provide supermarkets or F&V stores within a mile of each residence or provide convenient transit going to such stores within half a mile (.8 km).</p> <p>Planning information sheet: promoting food access gives examples of strategies to use to address food access, production & distribution. These illustrate the planning language & policies that can be used in zoning regulations & other municipal ordinances. Caution that these are examples only & the incorporation of any of the ideas into a local code or plan requires knowledge of the local context and tailoring to local conditions, issues & concerns.</p>	<p>Low evidence based on expert opinion based on emerging evidence and illustrated by brief case studies</p> <p>DH: 4/5 Daly: III</p> <p>Useful way of presenting evidence & practical information.</p> <p>Overall message relevant, but research findings & details of potential policy or plan implementation would need to be checked against local evidence & tailored to Victorian context.</p>	<p>Built & Natural</p> <p>Planning Environment/Sustainability</p>
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	<p>2. Things still up in the air</p> <ul style="list-style-type: none"> ○ Not clear whether people who live closer to poor quality food sources or those who live further away from high quality food sources have poorer diets or are more overweight. Living near a supermarket does seem to help those without cars. ○ Even if people who live nearer unhealthy food sources or further from healthy food choices eat worse, is this due to location or other factors such as economics or choice? 			
<p>Good E. Hammond M. & Groos A. 2006 <i>Creating supportive environments for healthy eating.</i></p> <p>Central Area Population Health Services. Queensland Government Queensland Health. Unpublished document.</p> <p>AND a 2009 update of the above literature review by Furness K</p> <p>Note the 2010 article by Good E, Hammond M. Martin C. Burns C. & Groos A. that describes in more detail the overview of the Queensland planning tools and their potential role in local government strategies for creating supportive environment for healthy eating.</p>	<p>Makes recommendations of "issues for action by local government" on the basis of</p> <ul style="list-style-type: none"> ○ a review of 71 references in peer reviewed & grey literature ○ some illustrative case studies ○ an overview of local government planning mechanisms in Queensland which have a role in creating supportive environments for healthy eating. 	<p>Recommends action in 5 areas</p> <ol style="list-style-type: none"> 1. Breastfeeding facilities & workplace policies 2. Availability of healthy food in workplaces & at community events 3. Fast food outlet density 4. Outdoor advertising 5. Drinking fountains in public facilities & workplaces. <p>Suggested ways to achieve this include</p> <ul style="list-style-type: none"> ○ use of planning mechanisms (zoning, regulation & fees, housing design), ○ inclusion in local govt. policy & plans, ○ promotion of sustainable food production, ○ food pricing mechanisms, ○ transport to & home delivery of fresh food sales, ○ increase in community food retail options, 	<p>Low evidence based on expert opinion based on non-systematic literature review, analysis of local govt planning legislation, plans & policies relevant to influencing food environments.</p> <p>DH: 5 Daly: III:</p> <p>Authors note the lack of systematic evidence, & that recommended action in the five areas is "based on</p>	<p>Social & Built</p> <ul style="list-style-type: none"> • Strategic, Social & Urban Planning

		<ul style="list-style-type: none"> ○ inclusion of relevant goals in local government strategic & policy documents & action plans. <p>Recommends piloting a no. of actions & evaluation of their practicality & effectiveness.</p>	<p>expert opinion & subjective interpretation of the legislation rather than objective data.”</p> <p>Evidence is weak; many of the recommended actions refer to planning mechanisms that are Queensland specific & /or require state rather than local government action especially the suggested action in relation to fast food availability & outlet density.</p>	
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Appendix 2: Local Government, Urban Food Production and Food Security

<p>1. Reference</p> <p>Yellow highlight indicates reference is based on Australia material</p>	<p>2. Scope</p>	<p>3. Conclusions</p>	<p>4. Nature & strength of the evidence & comments</p>	<p>5. Relevance to Environments for Health & LGA Divisions</p>
<p>Hodgson K. & Campbell MC. 2011 <i>Urban agriculture: Growing healthy, sustainable places.</i> American Planning Association Report</p>	<p>This report provides guidance for dealing with the opportunities & challenges faced by cities & counties of varying sizes, economies, & locations in supporting & expanding urban agriculture.</p> <p>Through case studies, the report illustrates the range of local government efforts, policies & programs both emerging & in place, & reveals the differences among local governments in their approaches as they respond to the needs of the urban agriculture community.</p>	<p>Concludes that the most popular form of urban agriculture, community gardening, contributes significantly to social connections, building capacity, & empowering communities in urban neighbourhoods. Older, industrial cities, with their drastic loss of population & their acres of vacant land, are emerging as centres for urban agriculture initiatives.</p> <p>Includes case studies illustrating different ways communities are embracing urban agriculture:</p> <ol style="list-style-type: none"> 1. strong community based food systems 2. reclaiming vacant land 3. reusing brownfields for urban agriculture 4. economic development 5. community health & wellbeing 6. emergency of community grass roots 	<p>Low evidence based on case studies & expert opinion.</p> <p>DH: 4 Daly: III</p>	<p>All</p> <p>All</p>

		<p>groups.</p> <p>Planners can help facilitate the growth & acceptance of urban agriculture by:</p> <ol style="list-style-type: none"> 1. Engaging with the community, local govt. & non-govt partnerships, food policy councils etc. 2. Ensuring land use policy supports food production for personal use or sale 3. Promoting economic development strategies to provide financial & technical assistance to new food producers 4. Doing an inventory of public & other land for urban food production. 		
<p>Kobayashi M. Lee T. Abi-Nader J. 2010 <i>The activities & impacts of community food projects 2005-2009.</i> National Institute of Food & Agriculture US Department of Agriculture</p> <p>http://www.foodsecurity.org/pub/CPF_Activities_Impacts_2005-09.pdf</p> <p>Reference also of relevance to the Preservation & Enhancement of Peri-Urban Agriculture</p>	<p>Report commissioned & published by the Community Food Projects (CFP) Competitive Grants Program by researchers from the National Research Center & the Community Food Security Coalition</p> <p>CFP reported having an impact on</p> <ol style="list-style-type: none"> 1. <i>Economic & social equity</i> – increased gardening & farming skills, job & 	<p>The reports states that these results demonstrate “the important & integral role of community food projects towards creating food security in communities across America”.</p> <p>Conclusions suggest that a sustained funding program for a range of community food projects leads to a range of positive impacts.</p>	<p>Moderate evidence based on an analysis of quantitative & qualitative data based on reports made to USDA from the recipients of US national Community Food Project funding</p>	<ol style="list-style-type: none"> 1. All 2. Across Council especially <ul style="list-style-type: none"> • Strategic, Social & Urban Planning • Public /Environmental Health • Community Services • Business /Economic Development • Sustainability /Environment

	<p>business creation, & demand for local produce</p> <p>2. <i>Environmental stewardship:</i> 53,000 acres farmed of which 62% was donated or used free of charge. 3000 acres preserved. Vast number of community & urban gardens operated, millions of lbs of food waste composted with consequent reduction in land fill & increase in soil health.</p> <p>3. <i>Healthy food access:</i> 19 million lbs of food generated, value estimated at \$19.7 million. The thousands of recipients varied in age, race & ethnicity, most lived in low income areas.</p> <p>4. <i>Increased community food system infrastructure:</i> 350 community food</p>		<p>2005-2009.</p> <ul style="list-style-type: none"> • 307 grantees funded • 191 community food projects completed the annual Common Output Tracking Form, providing annual response rates between 37% & 79% & an overall response rate of 62%. • Data were then statistically weighted to represent the results of 100% 	
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	<p>assessments done, 40 food policy councils formed, 180+ policies adopted.</p>		<p>of active grantees operatin g between 2005- 2009.</p> <p>DH: 4 Daly: Impressive level of detail reported, however, based on program self reports, not on independent evaluation.</p>	
<p>Parliament of Victoria. Outer Suburban Interface Services & Development Committee. 2010 <i>Inquiry into sustainable development of agribusiness in outer suburban Melbourne.</i></p> <p>Parliament House. Victoria.</p>		<p>Vic Gov supported the following recs in principle: Rec 77 That the Victorian Government work with local governments to identify available government-owned land suitable for new community gardens.</p> <p>Rec 78 That the Victorian Government work with developers & local governments to ensure that space in new housing developments is allocated for community gardens.</p>	<p>Low evidence based on background literature review, expert option & some case studies.</p>	<p>Built & Natural Planning Environment/Sustainability</p>

		<p>Rec 79 That the Victorian Government encourage developers to work with local governments, gardening clubs & local schools to promote the practice of edible landscaping in new & existing communities.</p> <p>Rec 80 That the Department of Planning & Community Development:</p> <ul style="list-style-type: none"> ○ conduct an assessment of the Victorian Planning Provisions in regards to removing the barriers for urban agriculture in Melbourne ○ amend the Victorian Planning Provisions to include a zone for urban agriculture 		
<p>Larsen K. Ryan C. Abraham A. 2008 <i>Sustainable & secure food systems for Victoria: What do we know? What do we need to know?</i> Victorian Eco-Innovation Lab, University of Melbourne</p>	<p>A 'mapping' of information sources across the food system, to provide a sense of "what we know" & "what we need to know". Based on literature scans, selective interviews & correspondence with researchers & research groups, & some consultative workshops. It also draws on secondary</p>	<p>Useful discussion types of urban agriculture & grassroots urban food production movements in Victoria. Concludes:</p> <ol style="list-style-type: none"> 1. Urban agriculture, particularly horticulture can produce significant amounts of food (Cuba, Victory gardens in 2nd World War) 2. Victoria has successful history of urban food production (ABS data 	<p>Low evidence based on literature scan & expert opinion.</p>	<p>Natural, economic Planning, Environment/Sustainability</p>

	sources including general media to map social concerns & awareness about food sustainability issues.	from 1992) 3. Urban food production could reduce environmental impacts of food consumption		
<p>Bellows. AC, Brown. K & Smit. J 2008 <i>Health benefits of urban agriculture.</i></p> <p>Community Food Security Coalition's North American Initiative on Urban Agriculture.</p> <p>http://www.foodsecurity.org/pubs.html#healthurbanag</p>	Report for Community Food Security Coalition outlining the benefits of urban agriculture with regard to nutrition, food security, exercise, mental health & social & physical urban environments, based on an extensive set of references.	<p>Concludes that urban food production has benefits in</p> <ol style="list-style-type: none"> 1. Nutrition (dietary knowledge & practice, saves food dollars; fresh & local food) & food security in times of personal or community emergency 2. Lifelong active lifestyles (exercise) & mental health 3. Builds safe, healthy & green environments (active social life, education via urban agriculture in schools, aesthetic & environmental gains. <p>They identify some risks (& ways around them):</p> <ol style="list-style-type: none"> 1. Soil contamination 2. Air pollution 3. Standing water (mozzies) animal manures (disease?) sharp tools, muscle strain, sun exposure. <p>Recommend:</p> <ol style="list-style-type: none"> 1. Build gardens in key locations (council, aged 	<p>Moderate evidence based on overview of large body of literature, not a systematic assessment.</p> <p>DH: 6 Daly: III</p>	<ol style="list-style-type: none"> 1. Natural, Social, Economic 2. Across Council especially <ul style="list-style-type: none"> • Strategic, Social & Urban Planning • Public /Environmental Health • Community Services • Business /Economic Development • Sustainability /Environment

		or health care facility, schools etc) 2. Support home & community gardening 3. Planners & policy makers to preserve open space, establish gardens, support markets, build edible buildings (rooftop gardens etc) 4.		
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Gaynor A. 2006 <i>Harvest of the suburbs: An environmental history of growing food in Australian cities</i> University of Western Australia Press	Not sighted, referred to in Nettle 2008	A history of the culture & cultivation of food production in Australian cities from the 1880s to the present. Includes community gardening as a form of urban food production.		
Brown K H. & Carter A. 2003 <i>Urban agriculture & community food security in the United States: Farming from the city center to the urban fringe.</i> A Primer prepared by the Community Food Security Coalition's North American Urban Agriculture Committee. 29p www.foodsecurity.org/PrimerCFSCVAC.pdf	"This primer provides an introduction to urban agriculture with a special emphasis on its ability to combat food insecurity in United States cities. Through profiles & information, the reader will be able to gain access to the many resources available to expand urban agriculture in their area." Includes sections on 1. Definition of urban agriculture 2. Benefits including recreation & leisure; economic vitality & business entrepreneurship, individual health & well-being; community health & well-being; access to food for the food insecure; landscape	Challenges include: 1. Land tenure 2. Start up costs 3. Access to markets 4. Knowledge & skills 5. Seasonal limits 6. Health 7. Urban planning 8. Vandalism & crime A range of response described to tackle these challenges. Policy changes needed are: 1. City-wide food system assessment & establish food policy council or body to bring together individually weak advocates & activists. 2. Support infrastructures for increased food production,	Moderate evidence based on selected review of literature, case studies & expert opinion. DH: 6 Daly: III A useful primer with extensive references & suggestions, many if not most of which are relevant to the Australian context	All: Built, Natural, Economic & Social Planning Environment / Sustainability Economic/ Business Development Community Services

	<p>beautification; & environmental restoration & remediation.</p> <ol style="list-style-type: none"> 3. Describes the potential for growing food in cities & the 3 categories of city food producers: commercial, communal & domestic 4. Enumerates the challenges facing urban agriculture & responses to these 5. Recommends the policy changes needed to promote urban agriculture 	<p>processing & marketing</p> <ol style="list-style-type: none"> 3. Extend appropriate farm related services & opportunities to urban growers 4. Preserve farms on urban fringe & convert idle underused urban lands to food production 5. Promote & develop training in food production 6. Sponsor & publicise research that integrates health, nutrition, food production, access & economics to solve city issues 7. Educate professionals so urban farming automatically considered a part of urban planning 		
<p>Bruinsma, Wietse & Hertog W. (Eds.) 2003 <i>Annotated bibliography on urban agriculture</i></p> <p>Prepared for the Swedish International Development Agency (SIDA) by ETC - Urban Agriculture Programme in cooperation with TUAN & other organisations Leusden, The Netherlands: ETC Urban Agriculture Programme.</p> <p>www.ruaf.org's publications page.</p>	<p>An exhaustive 804 page bibliography of research on urban agriculture, with introductory essays to each section. Indexed & cross-referenced. Includes numerous references to overseas research on community gardening (in several languages).</p>	<p>Did not consult as focus of Resource Centres on Urban Agriculture & Food Security (RUAF) is on developing countries. Also you need to be a member of RUAF.</p>	<p>Mentioned here for interest's sake!</p>	

COMMUNITY GARDENING

1. Reference Yellow highlight indicates reference is based on Australia material	2. Scope	3. Conclusions	4. Nature & strength of the evidence & comments	5. Relevance to Environments for Health & LGA Divisions
<p>Litt JS. Soobader MJ. Turbin MS. Hale JW. Buchenau M. Marshall JA. 2011 The influence of social involvement, neighbourhood aesthetics & community garden participation on fruit & vegetable consumption.</p> <p><i>In American Journal of Public Health 2011 June 16th In press</i></p>	<p>Based on population based survey representing 436 residents across 58 block groups in Denver Colorado from 2006 to 2007. Multi-level statistical models used to evaluate the survey data. Survey explored the relationship between an urban adult population's F & V consumption & several selected social & psychological processes, beneficial aesthetic experiences & garden participation.</p>	<p>Neighbourhood aesthetics, social involvement & community garden participation were significantly associated with F&V intake.</p> <p>Community gardeners consumed F&Vs 5.7 times a day, compared with home gardeners (4.6 times a day) & non-gardeners (3.9 times a day)</p> <p>Also 56% of community gardeners met national recs to consume F&Vs at least 5 times a day, compared with 37% of home gardeners & 25% of non-gardeners.</p>	<p>Moderate evidence based on survey DH: 3 Daly: N/A</p>	<p>Natural Planning Environment/ sustainability Community Services</p>
<p>McCormack LA. Laska MN. Larson NI. Story M. 2010 Review of the nutritional implications of farmers' markets & community gardens: a call for evaluation & research efforts.</p> <p><i>In Journal of American Dietitians Association. March 110(3) pp 399-408.</i></p>	<p>A systematic review of scientific literature published between January 1980 & January 2009 if they took place in the US & qualitatively or quantitatively examined nutrition-related outcomes, including dietary intake; attitudes & beliefs regarding buying, preparing or eating F & V; behaviours & perceptions related to obtaining produce from a FM or community garden. Studies focussing on garden-based</p>	<p>Findings state few well-designed research studies available.</p> <p>This unable to conclude whether farmers' markets or community gardens have a positive impact on nutrition & attitudes or practices.</p>	<p>Low evidence based on systematic literature review DH: 5 Daly: N/A</p>	<p>All Planning Environment/ Sustainability Economic Business Development Community Services</p>

	youth programs were excluded. 16 studies identified: 12 on FMs: 4 on CGs.			
<p>Robinson-O'Brien R. Story M. Heim S. 2009 Impact of garden-based youth nutrition intervention programs: A review.</p> <p>In <i>Journal of American Dietary Association</i> Feb 109(2) PP 273-280.</p> <p>Conclusions of the above are supported by a subsequent evaluation of a school garden initiative "Community based interventions that provide activities to engage parents may provide added benefit by improving the home food environment." Heim S. Bauer KW. Stang J. & Ireland M. 2011 Can a community based intervention improve the home food environment? Parental perspectives of the influence of the delicious & nutritious garden.</p> <p>In <i>Journal of Nutrition Education Behavior</i>. 2011 Mar-April, 43(2) pp 130-134</p>	<p>A systematic review of the scientific literature on garden-based youth nutrition intervention programs & the impact on nutrition-related outcomes. Included studies published between 1990 & 2007 in involved children or adolescents in US & examined impact of garden based nutrition education on F &/or V intake, willingness to taste F & Vs or other nutrition-related outcomes.</p> <p>11 studies reviewed;</p> <ul style="list-style-type: none"> o 5 on school grounds & integrated into curriculum o 3 studies part of an after school program o 3 studies in the community. 	<p>Concludes" garden-based nutrition intervention programs may have the potential to promote increased F&V intake among youth & increased willingness to taste F&Vs among younger children. However, empirical evidence in this area is relatively scant.'</p> <p>Call for well-designed, evidence based, peer-reviewed studies.</p>	<p>Moderate evidence based on systematic literature review DH: 2 or 3 Daly: N/A</p>	<p>All Planning Environment/ Sustainability Economic Business Development Community Services</p>
<p>Browne J. Laurence S. & Thorpe S. 2009 <i>Acting on food insecurity in urban Aboriginal and Torres Strait Islander communities: Policy and practice interventions to improve local access and supply of nutritious food.</i></p> <p>http://www.healthinonet.ecu.edu.au/health-risks/nutrition/other-reviews</p>	<p>Paper written</p> <ol style="list-style-type: none"> 1. To promote food security as a key agenda for policy & practice in addressing health inequalities for Aboriginal & Torres Strait Islander people. 2. To review available evidence & documented evaluation of interventions to promote nutrition in Aboriginal & 	<p>The authors mention literature that reviewed a number of indigenous community gardens. These are reported as having increased access to fresh F&V for participants & provided opportunities for physical activity, community pride & social interaction through gardening.</p> <p>Authors note literature that states a community garden approach needs a great deal of organisation to manage the shared responsibility for</p>	<p>Low evidence based on general overview of the literature. DH: 5 Daly: III</p>	<p>Natural Planning Environment/ sustainability Community Services</p>

	<p>Torres Strait Islander people in order to inform best practice.</p> <p>3. To inform inter-sectoral and multi-strategy options for policy & practice interventions to improve food security for Aboriginal & Torres Strait Islander people, with a focus on urban Australia.</p>	<p>maintaining the garden;</p> <ul style="list-style-type: none"> ○ The sustainability of the garden is often dependent on one or two individuals having the capacity to co-ordinate the activities of the other participants ○ Access to on-going funding is necessary for infrastructure costs associated with vehicles, fuel costs & repair of equipment etc. 		
<p>Alaimo K. Packnett E. Miles RA. & Kruger DJ. 2008 Fruit & vegetable intake among urban community gardeners</p> <p><i>In Journal of Nutrition Education & Behavior</i> 40(2) pp. 94 - 101</p>	<p>Data analysed from a cross-sectional random phone survey conducted in 2003. A quota sampling strategy was used to ensure that all census tracts within the city were represented.</p> <p>F & V intake measured using questionnaire items from the Behavioral Risk Surveillance System, Household participation in a community garden was assessed by asking the respondent if he or she or any member of the household, had participated in a community garden project in the last year. Generalised linear models & logistic regression models assessed the association between household participation in a community garden & F& V intake, controlling for demographic, neighbourhood participation & health variables.</p>	<p>Adults with a household member who participated in a community garden consumed fruits & vegetables 1.4 more times per day than those who did not participate, & they were 3.5 times more likely to consume fruits & vegetables at least 5 times daily.</p> <p>The authors suggest that community gardens may encourage fruit & vegetable consumption by increasing access to fresh produce, providing low-cost produce that is perceived as of high-quality, & increasing people's preference for fruit & vegetables.</p>	<p>Moderate evidence DH: 2 Daly: N/A</p>	
Volcu I & Been V. 2008	This article estimates the impact	Results: "gardens have significant	Moderate	Natural &

<p>The effect of community gardens on neighbouring property values.</p> <p><i>In Real Estate Economics Vol 36 Issue No.2 pp 241-293.</i></p>	<p>of community gardens on neighbourhood property values using "rich data from New York City & a difference-in-difference specification of a hedonic regression model."</p>	<p>positive effects, especially in the poorest neighbourhoods. Higher quality gardens have the greatest positive impact."</p>	<p>evidence based on quantitative analysis of property values (not in terms of food security) DH: 3 Daly: N/A</p> <p>These results may not be directly transferable to Australian context.</p>	<p>Economic Planning Environment/ sustainability Economic/ business development</p>
<p>Wakefield S. Yeudall F. Taron C. Reynolds J. Skinner A. 2007 Growing urban health: Community gardening in South East Toronto</p> <p><i>In Health Promotion International 2007 June 22(2) pp 92-101</i></p>	<p>Describes results of a community based research project that collected data on perceived health impacts of community gardening through participant observation, focus groups & in-depth interviews.</p>	<p>Results suggest that community gardens were perceived by gardeners to provide numerous health benefits, including</p> <ol style="list-style-type: none"> 1. improved access to food 2. improved nutrition 3. increased physical activity 4. improved mental health 5. social health & community cohesion <p>There were also some challenges:</p> <ol style="list-style-type: none"> 1. Insecure land tenure & access 2. Bureau critic resistance 3. Concerns about soil contamination 4. Lack of awareness & understanding by community members & decision makers 5. Need for on-going resources to support gardens. 	<p>Low evidence c based on selected interviews. DH: 4 Daly: IV</p>	<p>Natural & Economic Planning Environment/ sustainability Economic/ business development</p>
<p>Armstrong D. 2000</p>	<p>Reports on survey of 20 garden</p>	<p>Most commonly expressed reasons</p>	<p>Low evidence</p>	<p>Natural</p>

<p>A survey of community gardens in upstate New York: Implications for health promotion & community development.</p> <p><i>In Health Place 2000 Dec 6(4) pp 319-327.</i></p>	<p>programs representing 63 gardens to identify characteristics that may be useful to facilitate neighborhood development & health promotion.</p>	<p>for participating in gardens were access to fresh foods, to enjoy nature & health benefits. Gardens in low income neighbourhoods (46%) were 4 times as likely as non-low-income gardens to lead to others issues in the neighbourhood being addressed; reportedly due to organising facilitated through the community gardens.</p>	<p>based on limited survey</p> <p>DH: 4 Daly: N/A</p>	<p>Planning Environment/ sustainability Community Services</p>
<p>Brown KH. & Jameton AL. 2000 Public health implications of urban agriculture.</p> <p><i>In Journal of Public Health Policy 2000;21(1) pp 20-39</i></p>	<p>The article presents the case for stronger public policies in support of urban gardening as a means to improve public health.</p>	<p>Article discusses several beneficial aspects of gardening, such as food security, economic development, exercise, psychological & community well-being, & environmental stewardship.</p> <p>It also considers some of the public health problems associated with urban agriculture & suggests policies to ameliorate them. In the balance, urban gardening has potential as an important element of urban public health</p>	<p>Low evidence based on expert opinion</p> <p>DH: 6 Daly: N/A</p>	<p>Natural</p> <p>Planning Environment/ sustainability Community Services</p>

AUSTRALIAN COMMUNITY GARDENS

1. Reference Yellow highlight indicates reference is based on Australia material	2. Scope	3. Conclusions	4. Nature & strength of the evidence & comments	5. Relevance to Environments for Health & LGA Divisions
Community Garden Conference 2010 <i>Promoting sustainability, health and inclusion in the city.</i> University of Canberra. 7-8 October 2010. Proceedings http://canberra.edu.au/communitygardens/home	Contains 11 refereed papers and 2 non-refereed papers covering community garden initiatives around Australia (and elsewhere) including one by Nettle C <i>Australian community gardens as food security initiatives.</i>			
Nettle C. 2008 <i>Community gardening: An annotated bibliography</i> Published by Australian City Farms & Community Gardens Network www.communitygarden.org.au	A bibliography including brief descriptions of <ul style="list-style-type: none"> • Why an annotated bibliography? • Guidebooks & Manuals • Books <ul style="list-style-type: none"> ▪ Research & analysis ▪ History of community gardening ▪ Community garden stories ▪ Book Chapters • Theses • Journal articles & conference papers <ul style="list-style-type: none"> ▪ Social impacts & community development 	<ol style="list-style-type: none"> 1. The emphasis is on furthering understanding of community gardening in Australia. The Bibliography attempts to be exhaustive in the inclusion of Australian sources & it also includes many sources from & about North America & Britain. 2. It does not include all published research about British allotments, though it does include a number of articles that raise issues relevant to Australia. Nor does it include the many articles that have been published in Australia & overseas in newspapers & magazines. 	Low evidence based on annotated bibliography. DH / Daly N/A	All All Council divisions

	<ul style="list-style-type: none"> ▪ Health ▪ Food security, food policy & community food systems ▪ Urban agriculture ▪ Education ▪ Politics & social action ▪ Environment ▪ Planning, urban design & place making ▪ Economics <ul style="list-style-type: none"> • Evaluations, submissions, reports 	3. Many of these are available online. The substantial literature on gardening in schools is also omitted.		
<p>Astbury B. & Rogers P. 2004 <i>Evaluation of the Stronger Families & Communities Strategy 2000-2004 Gilles Plains Community Garden A Case Study</i></p> <p>Australian Government, Department of Family & Community Services. RMIT University CIRCLE.</p>	Qualitative methods (site visits, interviews, document review) of this garden in a culturally diverse, socio-economically disadvantaged suburb of Adelaide in South Australia. Garden based in the centre of an area with a number of community services.	<p>Perceptions of impact for individuals include:</p> <ol style="list-style-type: none"> 1. Educational & teaching resource 2. Therapeutic tool giving sense of belonging & helping with depression 3. Source of recreation & physical exercise <p>Perceived impact for organisations & community:</p> <ol style="list-style-type: none"> 1. Enhancement of partnerships 2. Means for building capacity & social capital development 3. Improvements in the urban environment 4. Reduction of antisocial behaviour. 	<p>Low evidence based on qualitative case study. None of perceived impacts relate to access to food.</p> <p>DH:4 Daly: IV</p>	<p>All</p> <p>All Council divisions</p>
<p>Urbis Keys Young 2004 <i>Community greening program: Evaluation final report</i> Prepared for the Botanic Gardens Trust & the</p>	A retrospective evaluation of the Community Greening Program run by the Botanic Gardens Trust (BGT) & the	<p>Evaluation reports that the Program</p> <ol style="list-style-type: none"> 1. Reduced crime & antisocial behaviour on the high rise estates & increased feelings of 	<p>Low evidence based on post program self reports.</p>	<p>All</p> <p>All Council divisions</p>

<p>NSW Department of Housing</p>	<p>NSW Department of Housing (DoH) as part of community renewal program in public housing estates across NSW.</p> <p>The program objectives are.</p> <ol style="list-style-type: none"> 1. Reduce crime & antisocial behaviour 2. Improve health & community resilience 3. Improve educational & employment opportunities 4. Improve local coordination & infrastructure 5. Improve agency coordination & information sharing <p>The evaluation methodology included:</p> <ol style="list-style-type: none"> 1. Interviews with key stakeholders associated with five garden projects & with the program overall 2. A brief survey distributed to DoH staff at individual garden projects to generate a profile of projects which constitute the program 3. A review of background documentation provided by DoH & BGT. 4. Case studies of 5 gardens 	<p>safety & confidence moving about the estate for participants.</p> <ol style="list-style-type: none"> 2. Improved health & community resilience for participants especially in terms of combating social isolation, increasing interaction between different cultures & between public housing & other residents. Benefits to the physical health of participants through exercise & better nutrition also reported. 3. Improved educational & employment opportunities. 4. Improved local coordination & infrastructure. However residents did not have a sense of being able to take on the organising of the gardens themselves. Actions to prepare residents for decreasing involvement from agencies need to be integrated into the activities of the program. 5. Improved agency coordination & information sharing. 	<p>DH: 4 Daly III</p>	
<p>Bartolomei L. Corkery L. Judd B. Thompson S. 2003 <i>A Bountiful Harvest: Community Gardens & Neighbourhood Renewal in Waterloo</i></p>	<p>A qualitative evaluation (interviews, document survey, brief survey) of several gardens on the Waterloo Housing Estate funded as part</p>	<p>Concludes:</p> <ol style="list-style-type: none"> 1. The gardens play a role in enhancing community & social life on the estate 	<p>Low evidence based on interviews & focus groups DH: 4</p>	<p>All All Council divisions</p>

<p>NSW Department of Housing. The University of New South Wales. Faculty of the Built Environment. School of Social Work</p>	<p>of NSW community renewal program in public housing estates.</p>	<ol style="list-style-type: none"> 2. Gardens have physical & emotional wellbeing benefits including a reduction in food costs & access to food not usually accessed 3. Management & design issues presented challenges to gardeners, housing workers & policy makers. (includes internal & external conflict management, cultural differences, leadership, conflict resolution) 4. Mixed results on whether gardens improved actual or perceptions of safety on the estate. <p>Large number of recommendations targeted to all those involved (govt, NGOs, residents, housing workers policy people etc. Emphasis on</p> <ol style="list-style-type: none"> 1. Need to provide adequate funding for management support infrastructure, tools etc 2. Partnerships with agencies 3. Participation & social inclusion of diversity of residents 4. Sympathetic design for diverse users 5. Development of realistic & responsive goals based on residents' views 6. Recognition of diversity & emphasis on networking with other gardens/ers 7. Gardens are not a panacea for the complex social problems on the estate: they must be part of 	<p>Daly III</p>	
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		an integrated social, economic & environmental strategic approach.		
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COMMUNITY GARDEN GUIDES

<p>2011 <i>Community gardening</i></p> <p>Department of Health Victoria</p>	<p>Small 4 page information sheet on community gardens as strategy "to improve dietary intake & improved access to F&V and a mechanism to improve access to & the number of recreational facilities in disadvantaged areas.</p>	<p>Contents include:</p> <ul style="list-style-type: none"> ○ Description & benefits ○ Size & distribution of the problem ○ Suggested partners ○ Resources for implementation ○ Evaluation tools ○ References 		
<p>Nettle C. 2010 <i>Growing community: starting and nurturing community gardens</i></p> <p>Adelaide: Health SA, Government of South Australia and Community and Neighbourhood Houses and Centres Association Inc</p>	<p>Extremely detailed guide based on a number of earlier guides including previous 2003 SA resource kit & Victoria's Cultivating Community's <i>Good Practice Guide for Community Gardens</i> & drawing on previous evaluation and policy recommendations on community gardens.</p>	<p>Contents include:</p> <ul style="list-style-type: none"> ○ Advocating for community gardening ○ Starting a new community garden ○ Garden design ○ Involving people & growing community ○ Gardening with children & schools ○ Notes for community, local council & landscape professionals ○ Promoting your garden ○ Accessing resources & funding ○ Decision making & meetings ○ Administration & management systems ○ Learning, education & training ○ Gardening basics ○ Sample forms & documents 		
<p>Thompson F. 2008 <i>Getting started in community gardens: A guide to planning, design & implementation of community garden projects</i></p>	<p>Detailed 70+ page document to support local level community gardening initiatives</p>	<p>Contents include:</p> <ul style="list-style-type: none"> ○ Getting started ○ Ongoing management ○ Social & organisational systems 		

<p>City of Sydney. Sydney</p>		<ul style="list-style-type: none"> ○ Essential resources ○ References ○ Examples of garden rules & guidelines, risk assessments, fact sheets, garden safety booklet etc 		
<p>Australian City Farms & community Gardens Network 2008</p> <ul style="list-style-type: none"> ○ <i>Evaluating Sydney's community gardens</i> ○ <i>Local government documents</i> <p>http://communitygarden.org.au</p>	<p>Series of sites to assist in the establishment and evaluation of community gardens</p>			

Appendix 3: Local Government, Peri-Urban Planning & Food Security

<p style="text-align: center;">1. Reference</p> <p style="text-align: center;">Yellow highlight indicates reference is based on Australia material</p>	<p style="text-align: center;">2. Scope</p>	<p style="text-align: center;">3. Conclusions</p>	<p style="text-align: center;">4. Nature & strength of the evidence & comments</p>	<p style="text-align: center;">5. Relevance to Environments for Health & LGA Divisions</p>
<p>Blanck HM. Thompson OM. Nebelling L. Yaroch AL. 2011 Improving fruit and vegetable consumption: Use of farm to consumer venues among US adults.</p> <p>In <i>Prev Chronic Disease</i> March 8(2) A49 Epub 2011 Feb 15.</p>	<p>Analysed data from a subset of respondents (N=1994) in the National Cancer Institute's Food Attitudes & Behaviours Survey, a mail survey of US adults.</p>	<ol style="list-style-type: none"> 1. Found associations between primary grocery shoppers' region & socio demographic characteristics & frequency of purchasing F & V in the summer from farm-to-consumer approaches. 2. No differences were found by sex, race/ethnicity, education, or annual household income. 3. Conclude these findings suggest that farm-to-consumer venues are used by many Americans & could be expanded to increase access to fruits & vegetables. 	<p>Moderate evidence. DH: 3 Daly: NA</p> <p>Not sure how applicable this research is to the Australian context.</p>	<p>Natural & Economic</p> <ul style="list-style-type: none"> • Planning • Business /Economic Development • Sustainability /Environment

<p>Curran D. & Stobbe T. 2010 <i>Local government policy options to protect agricultural land and improve the viability of farming in Metro Vancouver.</i></p> <p>A report prepared for Metro Vancouver.</p> <p>http://www.metrovancouver.org/planning/development/agriculture/AgricultureDocs/Local_Government_Policy_Options_to_Protect_Agricultural_Land.pdf</p> <p>NB In 2009, Curran did a review of local government</p> <ol style="list-style-type: none"> 1. Legislation, regulations, & policies affecting local agriculture 2. Policy tools available for farmland protection, farm activities, crop productivity & protection, water management, marketing, workers, tax assessment, & environmental issues. 3. Potential action by local governments to protect & enhance agriculture. <p>Not reported on here as too detailed & specific to Metro Vancouver. Mentioned because a similar, Victorian specific piece of work could be done.</p>	<p>A scoping or assessment document commissioned by Metro Vancouver to assist program & policy development.</p> <p>It contains</p> <ol style="list-style-type: none"> 1. A quantitative analysis of the density & value of farm land in Metro Vancouver 2. Identifies & reviews 40+ agricultural land & farm support policies & programs from around the globe. organised under headings of <ul style="list-style-type: none"> • farmland security • land tenure • local markets • urban agriculture • ecological goods & services • agricultural practices <p>Assesses each one in relation to</p> <ul style="list-style-type: none"> • Regulatory/legal 	<p>Suggests that 9 polices & programs have value:</p> <ol style="list-style-type: none"> 1. Regional & edge planning 2. Agricultural enterprise zones & revitalisation tax exemption programs 3. Amenity bonus 4. Regional agriculture fund 5. Regional farmland trust 6. Agricultural development office 7. Regional procurement policies 8. Agritourism strategy 9. Ecological goods & services <p>Gives examples in each area & suggests that a systems approach & a regional focus are required for effective implementation.</p>	<p>Moderate evidence, based on expert opinion & previous case studies.</p> <p>DH: 6 Daly: III</p> <p>The recommended policies & programs have relevance to Victoria but need adaptation because of the different planning powers of local government in Victoria as compared to British Columbia.</p> <p>Many require the exercise of state government powers, eg taxation, regional & urban fringe planning boundaries.</p>	<ol style="list-style-type: none"> 1. All with an emphasis on built, natural & economic 2. Across Council especially <ul style="list-style-type: none"> • Strategic, Social & Urban Planning • Public /Environmental Health • Community Services • Business /Economic Development • Sustainability /Environment
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	<ul style="list-style-type: none"> fit • Administrative fit • Fiscal impact • Fairness • Efficacy <p>4. Recommends mechanisms for Metro Vancouver & its member municipalities to protect agricultural land, improve the viability of farming & increase the amount of land farmed.</p>			
<p>McCormack LA. Laska MN. Larson NI. Story M. 2010 Review of the nutritional implications of farmers' markets and community gardens: a call for evaluation and research efforts.</p> <p><i>In Journal of American Dietitians Association. March 110(3) pp 399-408.</i></p>	<p>A systematic review of scientific literature published between January 1980 and January 2009 if they took place in the US and qualitatively or quantitatively examined nutrition-related outcomes, including dietary intake; attitudes & beliefs regarding buying, preparing</p>	<p>Findings state few well-designed research studies available.</p> <p>This unable to conclude whether farmers' markets or community gardens have a positive impact on nutrition & attitudes or practices.</p>	<p>Moderate evidence based on systematic literature review DH: 5 Daly: N/A</p> <p>Unclear how applicable this research is to the Australian context.</p>	<p>All</p> <p>Planning Environment/ Sustainability Economic Business Development Community Services</p>

	<p>or eating F & V; behaviours & perceptions related to obtaining produce from a FM or community garden. Studies focussing on garden-based youth programs were excluded. 16 studies identified: 12 on FMs: 4 on CGs</p>			
<p>Parliament of Victoria. Outer Suburban Interface Services & Development Committee. May 2010 <i>Inquiry into sustainable development of agribusiness in outer suburban Melbourne.</i></p> <p>Parliament House. Victoria.</p>	<p>Bipartisan Committee inquiry involving review of literature, public submissions & presentations to the committee.</p>	<p>The following recs were supported in principle by the Vic Gov in September 2010</p> <p>Recommendation 43: That the Victorian Government encourage local councils to remove or streamline the permits required by farmers moving livestock on roads, including the option of introducing longer (5-10 year) permits rather than annual permits.</p> <p>Recommendation 63: That the Department of Primary Industries provide advice &</p>	<p>Low evidence based on a brief literature review, some case studies & some expert opinion.</p> <p>DH: 5 Daly III</p>	<p>Natural & Economic Planning Business /economic development Environment/ sustainability</p>

		<p>practical assistance to peri-urban farmers seeking to establish Community Supported Agriculture schemes.</p> <p>Recommendation 66: That the Victorian Government assist & encourage private sector & community organisations across peri-urban Melbourne to conduct studies of local food supply chains & develop provedoring or similar services, with the aim of supporting local producers & increasing the consumption of local produce.</p> <p>Recommendation 68: That the Victorian Government introduce greater flexibility into the Victorian Planning Provisions to promote the development of agritourism in the green wedges.</p> <p>Recommendation 84: That the Victorian Government develop a comprehensive food</p>		
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		strategy for the Melbourne region which integrates agricultural policy with land use planning		
<p>Parliament of Victoria. Outer Suburban Interface Services & Development Committee. October 2010</p> <p><i>Inquiry into Farmers' Markets.</i></p> <p>Parliament House. Victoria.</p>	<p>Bipartisan Committee inquiry involving review of literature, public submissions & presentations to the committee.</p>	<p>Recommendation 1: That the Victorian Government continue to fund the Farmers' Markets Program beyond 2011.</p> <p>Recommendation 2: That Regional Development Victoria, in conjunction with Tourism Victoria, provide funding for interface local governments to develop agritourism websites promoting food-related tourist destinations, including farmers' markets, farm gate sales, cellar doors, 'pick-your-own' farms & festivals & events.</p> <p>Recommendation 3: That the Victorian Government work with the Australian Government, the Victorian Council of Social Service, Victorian Farmers' Markets Association &</p>	<p>Low evidence based on background review of relevant literature, case studies, & expert opinion, though largely from the basis that farmers' markets are good business opportunities that benefit all (farmers, customers, local communities, other traders) rather than potentially inaccessible to those on low incomes & potentially detracting from local greengrocers businesses.</p> <p>Some customer survey data</p>	<p>Built, Natural Economic Planning Environment/Sustainability Economic/business development</p>

		<p>farmers' market operators to examine innovative options (such as linking in with Centrelink concession cards or seniors cards) to ensure that the cost of produce at farmers' markets is accessible for people on low incomes.</p> <p>Recommendation 4: That the Victorian Farmers' Markets Association review its policies concerning local producers selling on behalf of other local producers, in order to • introduce greater flexibility for farmers & markets; & ensure maximum transparency & disclosure of the origins of products sold at farmers' markets.</p> <p>Recommendation 5: That the Victorian Government continue to encourage & support high standards for vendors trading at Victoria's farmers' markets.</p> <p>Recommendation 6:</p>	<p>quoted. DH: 5 Daly III</p> <p>NB this Inquiry considered a large number of Farmers' Markets defined as regular markets on public land where farmers & food producers sell their produce directly to customers. Does not include small markets run by third parties, market stalls whose primary goal is to increase the local supply of affordable accessible food.</p>	
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		<p>That the Victorian Government establish a program to identify vacant rural land suitable for agriculture in peri-urban Melbourne & encourage its lease to farmers & community organisations seeking land.</p> <p>Recommendation 7: That Victorian local governments seek opportunities to support farmers' market organisers & reduce regulatory barriers for farmers' markets.</p> <p>Recommendation 8: That the Victorian Government work with the Interface Group of Councils to develop a streamlined & standardised planning approval process for all new farmers' markets.</p> <p>Recommendation 9: That the Victorian Government, through the Department of Planning & Community Development, work with local government</p>		
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		<p>to: ensure that farmers' markets are sited in high visibility locations (such as public transport hubs, activity centres or retail precincts) which are accessible & likely to provide maximum benefits for nearby businesses; & facilitate & assist with access to services, such as power, public amenities, water & traffic management.</p> <p>Recommendation 10: That the Victorian Government, through its Farmers' Markets Program, ensure that a specific number of grants are dedicated to the establishment & operations of farmers' markets in lower income outer suburban areas or areas with limited access to fresh food. Ideally, the Committee believes all Victorian local government areas should have at least one farmers' market.</p> <p>Recommendation</p>		
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		<p>11: That the Victorian Government include a clause in the State Planning Policy Framework specifically noting the importance of ensuring access to food & encouraging a diversity of local food outlets, such as farmers' markets.</p> <p>Recommendation 12: That the Victorian Government assist local governments to implement the single registration system for vendors selling at farmers' markets.</p>		
<p>Community Food Security Coalition. 2007</p> <p><i>Food and agriculture related policies & practices to benefit limited resource farmers.</i></p> <p>Venice California.</p>	<p>A policy paper containing an overview of state & local policy approaches to supporting viable, sustainable small scale peri urban farming in order to develop a food system that benefits farmers & consumers alike. The paper</p> <ol style="list-style-type: none"> 1. Reviews existing state & local food & agricultural policies aimed 	<p>Identifies ways in which NGOs have effectively supported limited resource providers:</p> <ol style="list-style-type: none"> 1. Facilitating access to land & capital, & land retention (loans, grants, legal education, support & advice, partnerships, Land Trusts); 2. Teaching sustainable agriculture practices; 3. Managing risks & building the capacity of limited resource producers to compete 	<p>Moderate evidence based on expert opinion & case studies based on US experience & literature. Not all of this is relevant to the Australian context but some interesting discussion & ideas are potentially relevant.</p> <p>DH: 6</p>	<p>Natural & Economic Planning Environment/Sustainability Economic/ Business Development</p>

	<p>at creating increased market opportunities for local producers in general & limited resource producers in particular</p> <ol style="list-style-type: none"> 2. Recommend additional state & local policies for disadvantaged farmers & ranchers 3. Provides an overview of effective & innovative approaches towards limited resource producers created & implemented by NGOs; 4. Identifies appropriate roles for Food Policy Councils in strengthening opportunities for limited resource 	<p>in the market;</p> <ol style="list-style-type: none"> 4. Forming cooperative arrangements to collect & share resources; 5. Aiding immigrant & refugee producers to become farmers (education, training gardens, networking & information sharing, financial support), 	<p>Daly: III</p>	
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	producers to contribute to state & local food systems.			
<p>Derden-Little E. & Feenstra G. 2006</p> <p><i>Regional marketing: A review of programs in California.</i></p> <p>For the University of California Agriculture & Natural Resources Sustainable Agriculture Research & Education Program.</p> <p>http://www.sarep.ucdavis.edu/pubs/pubs.htm</p>	<p>Uni based research to gauge effectiveness of regional agricultural marketing in California. 25 interviews with stakeholders from sub-county to State level, who represent farmers, program directors, farm advisors & agricultural commissioners & a marketing consultant & cover 9 counties (LGAs).</p>	<p>All regional marketing programs (RMPs) share goals of increasing local production & consumption of agricultural products plus other educative & open space development goals. All RMPs are voluntary & core members are producers: recognition growing of the importance of involving consumers, retailers, restaurants & other businesses. Creation of a brand or logo often 1st step followed by logo dissemination & marketing activities, education for producers, production & marketing, farm tours tourism workshops etc. Establishment resources vary; local sources seen as preferable especially from local govt. or</p>	<p>Low evidence based on expert opinion, authors acknowledge lack of formal evaluation efforts or concrete measures of success to back up verbal assertions.</p> <p>DH: 6 Daly: III</p> <p>Key considerations eminently transferable to Australian context:</p> <ul style="list-style-type: none"> o Membership criteria critical (geographic boundaries; production practices, quality standards) & inclusion of broad 	<p>Natural & economic Planning Environment/Sustainability Economic Business Development</p>

		<p>other regional bodies. Need a PT or half time position to manage RMP responsibilities. Need to establish & track measurable indicators of success</p>	<p>spectrum of community</p> <ul style="list-style-type: none"> ○ Need PT person to manage communication, admin & marketing ○ Local funding preferable to engage local stakeholders ○ Networking critical component of RMP. 	
<p>Vandermeulen V. Verspecht A. Van Huylenbroeck G. Meert H. Boulanger A. & Van Hecke E. 2006</p> <p>The importance of the institutional environment on multifunctional farming systems in the peri-urban area of Brussels.</p> <p><i>In Land Use Policy Vol 23, Issue 4. pp 486-501</i></p> <p>Abstract only acquired.</p>	<p>Review of local & regional policies on the uptake of multifunctional farming systems based on analysis of data on diversification & environmental management by farmers in the Brussels peri-urban area.</p>	<p>Key findings of relevance here is that</p> <ul style="list-style-type: none"> ○ where a municipality attaches greater importance to environmental issues, then the higher the uptake of agri-environmental measures ○ the promotion of local agriculture encourages farmers to start processing & selling products on their farms. 	<p>Low evidence based on policy review. DH: 4 Daly: I</p>	<p>Natural & Economic</p> <p>Planning Environment \Sustainability Business/Economic Development</p>

<p>Guthrie. J.C. Guthrie A. Lawson R. Cameron A. 2006</p> <p><i>Farmers' Markets: The small business counter-revolution in food production and retailing.</i></p> <p>Otago & Massey Universities</p> <p>Based on & extends a paper Guthrie J. C. Guthrie A. & Lawson R. 2004. Living the good life: A report on farmers markets in new Zealand. New Zealand Centre for Retail Studies, Department of Marketing, University of Otago, Dunedin, NZ, Industry Report 2004.1.</p> <p>Earlier paper by Murphy A. J. 2004. <i>Farmers' markets as retail spaces.</i> Also for Dept of Commerce Massey University NZ</p> <p>Draws similar conclusions based on a study of FMs with particular attention to motives for participation of stallholders & customers. Product quality is a key motivator, with price not a significant barriers to purchase or visits.</p>	<p>The paper explores the rationale for farmers' markets in NZ.</p>	<p>Paper concludes that FMs provide additional outlets for entrepreneurial small-scale farmers & producers, alternatives for consumers & opportunities for communities, while their rapid growth is presenting challenge for some large competitors.</p> <p>Indications that these NZ markets similar to Australian FMs:</p> <ul style="list-style-type: none"> ○ Strong economic benefit for farmers ○ Indications of growth in local employment due to success of FMs ○ FMs play a role as business incubators ○ Customers tend to be better off & motivated by shopping 'experience', quality & "value for money' for artisan style & 	<p>Low evidence based on semi-structured interviews & case studies with selected sample of 3 established markets & their managers, producers /growers & customers.</p> <p>DH: 6 Daly: III</p>	<p>Natural & Economic</p> <p>Planning Environment \Sustainability Business/Economic Development</p>

		<p>value added products, rather than by price</p> <ul style="list-style-type: none"> ○ Tight eligibility rules for farmers used to maintain local nature of produce ○ Local govt regulatory framework underdeveloped & adapting to upsurge of FMS. ○ Consultation with local established businesses may reduce negative reactions to FMs 		
<p>Barbolet H. Cuddeford V. Jeffries F. Korstad H. Kurbis S. Mark S. Miewald C. Moreland F. 2005</p> <p><i>Vancouver food system assessment.</i></p> <p>Funded by Western Economic Diversification Canada in partnership with the City of Vancouver's Department of Social Planning, Simon Fraser University Centre for Sustainable Community Development, & the Environmental Youth Alliance.</p> <p>www.sfu.ca/cscd/food_security.htm</p>	<p>Assessment of the current state of the Vancouver food system & an exploration of how that system might be transformed to enhance food security for all residents through community led economic development & promotion of policies that build food system sustainability.</p>	<p>Makes many recommendations, 3 of which refer to improving access to affordable locally grown food:</p> <ol style="list-style-type: none"> 1. Support farmers' markets in low income neighbourhoods & make them more affordable via subsidies, employing local residents, tailoring product mix to the needs, tastes & incomes of the community & developing transit 	<p>Low evidence based on limited literature review, brief case studies & expert opinion.</p> <p>DH: 6 Daly III</p>	<p>Natural & Economic</p> <p>Planning Environment \Sustainability Business/Economic Development</p>

		<p>programs to bring people to market</p> <ol style="list-style-type: none"> 2. Explore possibility of developing a wholesale farmers' market to enable local producers to achieve economies of scale necessary to compete with imported products & build local economies 3. Publicise the importance of individuals & institutions buying local 		
<p>Coster M & Kennon N. 2005</p> <p><i>'New generation' farmers' markets in rural communities.</i></p> <p>A report for the Rural Industries Research & Development Corporation. RIRDC Publication No. 05/109: RIRDC Project DAV 207A.</p>	<p>Focus on Collingwood, Hastings & Albury Wodonga Farmers' Markets (FM). Research project designed to provide an understanding of</p> <ul style="list-style-type: none"> o the social & economic benefits to rural & town communities of FMs o the employment & local leadership created by FMs o the relative benefits as 	<p>FMs assessed as a win-win situation: economic benefits for farmers, education for community, & added value for local retailers. The assessment not made in the context of food security & the impact for people living on low incomes in disadvantaged communities.</p> <p>Customers do not report shopping in FM for good price rather for quality & for the opportunity to support local farmers, SES</p>	<p>Low evidence based on interviews (expert opinion?) and results of market surveys</p> <p>DH 5 Daly: III</p> <p>Jury still out on the basis of this research as to whether FMs of the type described are an effective strategy to bring accessible,</p>	<p>Natural, Economic, Planning Environment \Sustainability Business/Economic Development</p>

	<p>perceived by farmers compared to other marketing options</p> <ul style="list-style-type: none"> o the factors that contribute to a successful FM 	<p>profile of customers suggests (especially in inner city market) tend to be in middle to higher income brackets.</p>	<p>affordable food to people in disadvantaged communities.</p>	
<p>Paster E. 2004</p> <p>Preservation of agricultural land through land use planning tools and techniques.</p> <p>In <i>Natural Resources Journal</i>. Vol 44 No. 1 Winter 2004.</p> <p>http://ssm.com/abstract=600141</p>	<p>Article argues productive agricultural lands are an irreplaceable natural resource disappearing in the face of urban growth. Suggests ways in which this land can be preserved.</p>	<p>Local planners & community members must make agricultural preservation part of long term planning goals that take in to account both benefits & drawbacks of agriculture.</p>	<p>Low evidence based on expert opinion</p> <p>DH: 6</p>	<p>Natural & economic</p> <p>Planning Environment/ Sustainability</p>
<p>Toronto Food Policy Council. 2000</p> <p><i>Food secure city. Submission to the Toronto Official Plan.</i></p> <p>In 1991, in the absence of federal and provincial leadership on food security, the City created the Toronto Food Policy Council (TFPC). The Toronto Food Policy Council partners with business and community groups to develop policies and programs promoting food security. Its aim is a food system that fosters equitable food access, nutrition, community development and environmental health.</p> <p>The TFPC operates as a sub-committee of the Toronto Board of Health. Members include City Councillors, and volunteer representatives from consumer, business, farm, labour, multicultural, anti-hunger advocacy, faith, and community development groups. As one of the few urban-rural policy</p>	<p>Part of a series of documents on</p> <ol style="list-style-type: none"> 1. Food & hunger action 2. Health 3. Agricultural land preservation & urban planning 4. Economic development 5. Urban agriculture & food waste recovery 6. Community 	<p>Recommends that the City</p> <ol style="list-style-type: none"> 1. Does what it can to protect irreplaceable, excellent good food producing land close to the city 2. Recognises the important of urban agriculture in reducing exposure to global change events, and local 	<p>Low evidence based on expert opinion</p> <p>DH: 6</p> <p>Daly: III</p>	<p>Natural, built & economic</p> <p>Planning Environment/sustainability Economic /business development</p>

<p>development bodies in Canada, we try to bridge the gap between producers and consumers. The TFPC has a small staff and modest budget. It has no authority to pass or enforce laws. It's the power of ideas, inspired individuals and empowered communities that gives us influence. The Council is free to make its own decisions on food policy issues. Staff working with the TFPC are employed by, and responsible to, Toronto Public Health. This innovative and effective arrangement has gained international respect from public health, community food security and sustainable agriculture organisations. Together, staff and council members serve as catalysts and brokers. The TFPC brings people from different organisations together and help them find new ways to solve old problems. The Council is a forum for discussing and integrating policy issues that often fall between the cracks of established departments and research specialities. Council staff collect hard-to-get information and make it available to students, researchers and community developers. Staff and council members increase public awareness of food policy issues through public lectures and workshops. Staff and members advocate for policy change at the municipal, provincial and federal level. <u>Over the past 10 years</u> the TFPC has been instrumental in putting Food Security and Food Policy development squarely on the municipal agenda in Toronto</p> <p>http://www.toronto.ca/health/tfpc_index.htm</p>	<p>gardens</p> <p>7. Communication s, capacity building & public education</p> <p>This paper is a Policy Submission suggesting ways the City of Toronto can protect first class agricultural land in peri urban areas via 'The Toronto Official Plan'.</p>	<p>emergency planning& providing employment & contributing to the local economy.</p> <p>3. Puts more emphasis on promotion of local food consumption</p> <p>4. ensure affordable food retail outlets & affordable housing are key part of urban planning</p> <p>5. reduce negative environmental impact of food system through integrated resource management of waste management.</p>		
<p>Fisher A. 1999</p> <p><i>Hot peppers and parking lot peaches: Evaluating farmers' markets in low income communities.</i></p> <p>Paper written for the Community Food Security Coalition. Venice California.</p>	<p>Explores issues associated with farmers' markets & low income communities.</p> <p>1. Barriers to F & V consumption</p> <p>2. Case studies of 8 farmers'</p>	<p>Relevant conclusions:</p> <p>1. Barriers include lack of time available for cooking, food costs, lack of transport & food access</p> <p>2. Low income</p>	<p>Low evidence based on case studies & expert opinion.</p> <p>DH: 5 Daly: II</p> <p>Factors used to</p>	<p>Economic</p> <p>Economic /Business Development Environment/ Sustainability</p>

	<p>markets, some more successful than others</p> <p>3. Characteristics of successful markets in low income communities</p> <p>4. Policy barriers & opportunities & recommendations</p>	<p>markets need to be subsidised, preferably with govt grants</p> <p>3. Community organising is an essential component of a successful market in a low income area</p> <p>4. Low income market should tailor their product mix to focus on basic foods at affordable prices</p> <p>5. farmers should consider hiring sales staff from the neighbourhood especially where they do not speak the prevailing language of the markets consumers</p> <p>6. Lack of transport can be a barrier; market organisers should consider building in transport options.</p> <p>NB conclusions around food stamps not quoted here.</p>	<p>assess "success"</p> <p>include longevity, sales figures & whether the market meets the needs of farmers & the community</p> <p>Conclusions seem likely to be applicable to the Australian context.</p>	
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EXEMPLARS OF COMMUNITY SUPPORTED AGRICULTURE STRATEGIES DESIGNED TO ENHANCE PERI-URBAN AGRICULTURE

<p>1. Reference</p> <p>Yellow highlight indicates reference is based on Australia material</p>	<p>2. Scope</p>	<p>3. Conclusions</p>	<p>4. Nature & strength of the evidence & comments</p>	<p>5. Relevance to Environments for Health & LGA Divisions</p>
<p>Fisher A. 2005</p> <p><i>Building the bridge: Linking food banking & community food security.</i> For the Community Food Security Coalition & World Hunger Year.</p>	<p>Community FoodBank concept aims to achieve goals of community food security, the sustainability & viability of peri-urban farming, & a reduction in food miles & the environmental impact of this.</p> <p>Several Food Banks are profiled several of which demonstrate how peri urban farming, food redistribution and food security can be linked.</p>	<p>Examples include</p> <ol style="list-style-type: none"> 1. The Food Bank of Western Massachusetts where 600 shareholders leased & now own the land. They contract farmers to run the operation. Shareholders receive a weekly portion of the harvest, & 50% of produce is donated back into The Food Bank's redistribution stream to 400 local pantries, shelters, meal sites & other social service agencies 2. Kauai Food Bank which runs a food brokerage agency that buys from 100 local farmers & markets A Grade produce to tourist hotels & donates lower grade produce to the Food Bank 3. Capital Area Food Bank farms Trust Land with support from the USDA grant, CSA supports half the costs of the farm, & the rest is raised thro farm stalls. & markets or donated to Food Bank. 4. South Plains Food Bank runs a 	<p>Exemplars via case studies with some "General threads" & Challenges pulled together</p> <p>Note taken of</p> <ul style="list-style-type: none"> o Need for on-going govt funded grants to seed & support food banks & means of sharing information on old & mentoring on new strategies. o Importance of linking practical strategies 	<p>Natural, Economic & Social/Cultural</p> <p>Environment/ Sustainability Community Services</p>

		<p>training market garden to teach young people food growing skills. CSA & USDA Community Food Project grants supports the cost of the program.</p> <p>5. Greater Pittsburgh Community FoodBank links local farmers who donate food in return the Food Bank brings in volunteers to help pick produce. One farmer owns a farm , pays for food production in return FoodBank supplies volunteers & takes the produce selling through farm stands that also operate as training settings for young people.</p>	<p>to education & advocacy to achieve broader food system change.</p> <p>DH: 6 Daly: IV</p>	
<p>Food Connect. 2005 onwards</p> <p>http://www.foodconnect.com.au/</p> <p>Also Sullivan R. 2010 Local food for sustainable communities. In <i>Ecos Magazine</i> 152 pp18-21.</p>	<p>A Brisbane based organisation operating on CSA principles in Adelaide, Sydney & Brisbane,</p> <ul style="list-style-type: none"> o Food Connect sources seasonal food from local farmers (also home & community gardens, school farmers & even gleaners-people who harvest fruit growing in public space like street or park fruit trees). This is delivered to the Food Connect Homestead each week by the farmers & small freight companies. o It is packed into various 	<p>Sullivan 2010 reports this model has multiple benefits for farmers :</p> <ul style="list-style-type: none"> o Encourages them to grow a more diverse range of food o This is good for the environment & o Ensures farmers are fairly compensated for their produce o No need to transport produce very far so saving time, energy & money all of which can be put back into growing food. <p>Concept so successful it is said to be about to be launched in other major cities.</p>	<p>Opinion & Case Study</p> <p>DH: 6 Daly: IV</p>	<p>Natural & Economic Environment/ sustainability</p>

	<p>sizes of fruit & veggie boxes.</p> <ul style="list-style-type: none"> ○ The boxes are delivered to a network of City Cousins (families, schools or community centres) ○ Subscribers collect their boxes from their local City Cousin & get the chance to meet like-minded neighbours for a chat. <p>Food Connect also organises regular farm tours to connect city folk with growers.</p>			
<p>Local Harvest US Community Supported Agriculture (CSA) model. Current</p> <p>http://www.localharvest.org/csa/</p>	<p>Over the last 20 years, CSA taken off in US (Local Harvest website reports over 4,000 CSAs). Consumers can buy local, seasonal food directly from a farmer. Farmers have income stream & local customer base. CSAs involve:</p> <ul style="list-style-type: none"> ○ A farmer offers a certain number of "shares" to the public. Typically the share consists of a box of vegetables, but other farm products may be included. ○ Interested consumers purchase a share (aka a 	<p>CSAs often expanded to include</p> <ul style="list-style-type: none"> ○ Farm visits for customers & their children ○ Cooking & preparation demos ○ Close relationships between farmers & customers & growth of idea of shared risk or responsibility <p>Local Harvest website contains a section of tips & questions to help make CSAs work well.</p>	<p>Case studies</p>	<p>Natural & Economic</p>

	<p>membership or a subscription)</p> <ul style="list-style-type: none"> o In return they receive a box (bag, basket) of seasonal produce each week throughout the farming season. 			
<p>Boston Community Supported Agriculture (CSA)</p> <p>http://www.farmfresh.org/food/csa.php?zip=02215</p>	<p>Details of the 518 CSAs in the Boston area.</p>		<p>Case studies</p>	<p>Natural & Economic</p>
<p>Ambrose Family Farm CSA</p> <p>http://www.stonofarmmarket.com/Membership.html</p>	<p>Detailed website of a CSA in South Carolina</p>		<p>Case studies</p>	<p>Natural & Economic</p>

EXEMPLARS OF FARM TO HOSPITAL FOOD STRATEGIES DESIGNED TO ENHANCE PERI-URBAN AGRICULTURE

1. Reference	2. Scope	3. Conclusions	4. Nature & strength of the evidence & comments	5. Relevance to Environments for Health & LGA Divisions
<p>Farm to hospital: Supporting local agriculture & improving health care: Brochure current</p> <p>Center for Food & Justice & Community Food Security Coalition http://www.foodandjustice.org Health Care Without Harm http://www.noharm.org The resources referenced in this brochure, and many others, can be downloaded at Health Care Without Harm's website.</p>	<p>Brochure explaining how hospitals can improve their food environments by partnering with local farms</p>	<p>"Coordinating an institution's health mission with food procurement can be done in a number of ways. Examples of farm to hospital program elements are:</p> <ul style="list-style-type: none"> o purchasing locally grown products like fruits, vegetables, meat, and dairy for use in patient and cafeteria meals o hosting a farmers' market or CSA (community supported agriculture) programs on hospital grounds <p>creating hospital gardens as places of calm and healing</p>	<p>Information brochure containing information on</p> <ul style="list-style-type: none"> o What is farm to hospital o Steps hospitals can take to improve food o for growers on how to approach hospitals 	

<p>Sample Institutional Policies can be found on the Food Alliance website: http://www.foodalliance.org/sustainablefoodpolicy/policies.htm</p>			<ul style="list-style-type: none"> o case studies 	
<p>Sachs E. Feenstra G. 2007</p> <p><i>Emerging local food purchasing initiatives in Northern California: Executive summary.</i></p> <p>UC Sustainable Agriculture Research & Education Program. Agricultural Sustainability Institute.</p> <p>www.sarep.ucdavis.edu/cdpp/fti/index.htm</p>	<p>Exploratory research with chefs & food service directors at hospitals in & around the Bay Area, info also gathered through a partnership with the SF Bay Area chapter of Physicians for Social Responsibility.</p>	<p>Concludes:</p> <ol style="list-style-type: none"> 1. Best to avoid too narrow a definition of "local" for farm to hospital initiatives 2. Buying & serving local food may increase consumption of F & V by those who eat in hospitals 3. Hospitals can use local food purchasing to exert public influence that supports preventive health, environmental health, and social justice in their communities. 4. Local food purchasing in hospitals responds to growing consumer demand for local food & may bring cost-savings to hospitals. 5. Gives detailed recs on how the hospital food service needs to be structured & what to do to generate local purchasing pathways. 	<p>Expert opinion & case studies</p> <p>DH: 6 Daly: III</p>	

AUSTRALIAN EXEMPLARS OF ENHANCEMENT OF LOCAL COMMUNITY LINKS WITH PERI URBAN FARMERS

<p>1. Reference</p> <p>Yellow highlight indicates reference is based on Australia material</p>	<p>2. Scope</p>	<p>3. Conclusions</p>	<p>4. Nature & strength of the evidence & comments</p>	<p>5. Relevance to Environments for Health & LGA Divisions</p>
<p>Hawkesbury Food Program (HFP) 1997 – current</p>	<p>HF Program run out of Hawkesbury District Health Service. Its aim is to improve health & wellbeing of</p>	<p>HFP focus on food security & using multi-strategy approaches.</p>	<p>Low evidence based on exemplar.</p>	<p>1. Natural & economic</p>

<p>http://www.hawkesbury.net.au/community/178.html</p> <p>Hawkesbury Harvest (HH) 2000 to present</p> <p>http://hawkesburyharvest.com.au/news.asp</p>	<p>the community within the Hawkesbury LGA by strengthening links between the community & local food production & thus improving access to & consumption of safe, nutritious, affordable food.</p> <p>HH established as an incorporated organisation in 2000 covering 3 LGAs (including Hawkesbury). Strategic goals are</p> <ol style="list-style-type: none"> 1. Business & industry engagement in agribusiness – promotion & communications, product development, advertising, merchandising, regional branding, income generation, industry members’ education & support. 2. Community engagement of agriculture (Farm Gate Trail Open farms, Farmers & Fine Food Markets, special events 	<p>HH focus on improving economic viability & sustainable of local agriculture also using variety of educative, advocacy, marketing & business development strategies.</p>	<p>HFP Examples of work to build close links between rural & urban residents of Hawkesbury LGA & surrounds.</p> <p>HH reports significant growth in participation in the strategies & widespread recognition of the HH approaches.</p> <p>Overall HFP & HH provide exemplars of multi-faceted action on food security at the local government level</p> <p>Limited evidence of impact or outcome effectiveness beyond description, case studies, & limited before & after data on participation DH: 6 Daly: IV</p>	<p>2. Planning Community Services Economic/Business development Environment/ sustainability</p>
<p>Transition Towns movement & the Municipal Association of Victoria (MAV) 2009?- to</p>	<p>TT movement grew out of concerns about peak oil in the late 1990s. Local government is</p>		<p>Low evidence based on exemplar of multi-faceted</p>	<p>1. ALL especially Economic & Natural</p>

<p>current</p>	<p>becoming increasingly involved. The focus is on increasing the local sustainable food supply, on decreasing the use of non-renewable resources & the adoption of environmentally friendly thinking & actions at the local level</p>		<p>action on food security at the local government level</p> <p>Limited evidence of impact or outcome effectiveness beyond description, case studies, & limited before & after data on participation DH: 6 Daly: IV</p>	<p>2. All especially environment/sustainability</p>
<p>Penrith Food Project 1994-1997 (PFP)</p> <p>http://www.penrithcity.nsw.gov.au/index.asp?id=360</p>	<p>PFP had a multi-level, multi-sectoral, multi-strategy approach. Under its goal "to increase & improve the supply of affordable, acceptable, nutritious & safe food to residents & workers in the Penrith LGA, with particular concern for disadvantaged groups" the PFP includes (among others) the objectives of</p> <ul style="list-style-type: none"> o conserving high quality agricultural land o increasing local production of food 	<p>PFP undertook advocacy for sustainable agriculture, & influenced the development of a number of other food policy projects & networks in NSW including the Sydney Fresh Food Bowl Network; Hawkesbury Food Program and Hawkesbury Harvest.</p>	<p>Low evidence based on exemplar of multi-faceted action on food security at the local government level</p> <p>Limited evidence of impact or outcome effectiveness beyond description, case studies, & limited before & after data on participation</p>	<p>1. ALL</p> <p>2. All especially Community services Environment/sustainability</p>
<p>Northern Rivers Food Links 2010-2011</p> <p>http://www.northernriversfoodlinks.com.au/</p>	<p>A collaborative partnership between 7 Northern Rivers Councils & Rous Water that aims to secure a sustainable food future for the region. Project has a budget of &1,899,080 to</p>		<p>Low evidence based on exemplar of regional alliance of local govt.</p>	<p>Natural, Social & Economic</p>

	<p>implement a range of initiatives during 2010 & 2011 including</p> <ul style="list-style-type: none"> ○ Village showcase projects ○ Marketing & education ○ Distribution projects ○ Food production & distribution in Indigenous communities project ○ Sustainable agriculture projects ○ Local government resource kit 			
<p>Landshare Australia: connecting growers with people with land to share</p> <p>http://www.landshareaustralia.com.au/</p>	<p>“Landshare Australia brings together people who have a passion for home-grown food, connecting those who have land to share with those who need land for cultivating food. The concept of Landshare began in the UK, launched through the River Cottage television program in 2009, and has since grown into a thriving community of more than 57,000 growers, sharers and helpers across the country. Now that Landshare is here in Australia, we welcome you to come and take part in this fantastic initiative. Landshare is for people who:</p> <ul style="list-style-type: none"> ○ Want to grow vegetables but don't have anywhere to do it ○ Have a spare bit of land they're prepared to share ○ Can help in some way – from sharing knowledge & lending tools to helping out on the plot itself ○ Support the idea of freeing up more land for growing ○ Are already growing & want to join in the community” 	<p>Landshare Australia website claims 1140 members. A number of resources on line to assist those interested: how to guides, a toolkit, case studies, who can help.</p> <p>Case studies include school gardens, city farming & establishment of community farms on rural land near towns.</p>	<p>Low evidence based on small case studies only</p> <p>DH: 6 Daly: III</p>	<p>Natural & Economic</p> <p>Environment/sustainability</p>

Appendix 4: Local Government, Regulatory and Fiscal Powers and Food Security

1. Reference Yellow highlight indicates reference is based on Australia material	2. Scope	3. Conclusions	4. Nature & strength of the evidence & comments	5. Relevance to Environments for Health & LGA Divisions
<p>Department of Health 2011 <i>Victoria's Food Act : Food vans and stalls: Single approval to operate anywhere in Victoria</i></p> <p>State Government of Victoria. Melbourne</p>	<p>Information sheet to explain the changes in registration requirements under the Food Act for food stalls and vans that operate in several parts of Victoria.</p>	<p>Changes brought in as a result of feedback from traders & public health agencies who saw requirement to register & pay fees in each & every municipality in which food vans or stalls operate as a barrier to some food security strategies seeking to increase access to fresh food via mobile vans, farmers markets & stalls.</p>	<p>N/A</p>	<p>Social & Economic Public Health</p>
<p>VicHealth 2011 <i>Food for All 2005-2010 Program evaluation report.</i></p> <p>Victorian Health Promotion Foundation. Melbourne.</p> <p>Also a set of resources (information sheets and micro movies) that derived from FFA the evaluation entitled <i>Ten ways local government can act on food security.</i></p> <p>Available from: www.vichealth.vic.gov.au</p> <p>And an evaluation of the efficacy of these resource documents</p>	<p>A report highlighting the findings of the 5 year Food for All Program funded by VicHealth through local govt. Program goals:</p> <ol style="list-style-type: none"> 1. To reduce local government systemic & infrastructure barriers to food security 2. To increase access & consumption of healthy food by people living in disadvantaged communities. <p>Limitations in before & after data restricted the assessment of these goals</p>	<p>This report contains a number of examples of where local government used its regulatory powers, most of these are highlighted as case studies in the text of this Review.</p>	<p>Low evidence based on qualitative research design, no controls or comparison groups</p> <p>DH 4 Daly: III</p>	<p>All 4 environments All local govt divisions</p>

currently being carried out by the University of Melbourne.				
Parliament of Victoria. Outer Suburban Interface Services & Development Committee. May 2010 <i>Inquiry into sustainable development of agribusiness in outer suburban Melbourne.</i> Parliament House. Victoria.	Bipartisan Committee inquiry involving review of literature, public submissions & presentations to the committee.	The following rec was supported in principle by the Vic Gov in September 2010 Recommendation 43: That the Victorian Government encourage local councils to remove or streamline the permits required by farmers moving livestock on roads, including the option of introducing longer (5-10 year) permits rather than annual permits.	Low evidence based on a brief literature review, some case studies & some expert opinion. DH: 5 Daly III	Natural & Economic Planning Business /economic development Environment/ sustainability
Morales A. Kettles A. 2009 Healthy food outside: Farmers' markets, taco trucks and sidewalk fruit vendors. <i>In Journal of Contemporary Health Law & Policy. Vol 20, No. 20</i> <i>Also Mississippi College School of Law Legal Studies Research Paper 2010-02</i>	Policy paper exploring the dimensions of street vending & public markets and their intersection with food regulation.	Authors claim they do 3 things: 1. Suggest a reconfiguration of public space away from transportation to street & sidewalk vending 2. Highlight the importance of public space for commerce & creative activities 3. Discuss how cities traditionally used public markets as public policy tools to address food security, employment & help growing cities accommodate new immigrants 4. Suggest ways public health can support outdoor food sales.	Abstract only obtained, policy paper based on expert opinion.	3. All 4. All divisions
Allender S. Gleeson E. Crammond B. Gary S. Lawrence M. Peeters A. Loff B. Swinburn B. 2009 Moving beyond 'rates, roads and rubbish': How do local governments make choices about healthy public policy to prevent obesity?	Report of 11 semi-structured interviews with Victorian local government representatives to explore factors associated with regulatory intervention to create environments for healthy nutrition & physical activity (obesity prevention).	Local government most likely to support policy change when 1. There is a local evidence base that includes data on cost effectiveness 2. Council is supported by external funding (authors note that because councils rely on rate mechanism as primary source of income, least well	No evidence of effectiveness: opinion given by local government stakeholders on what would encourage them to support regulatory change	1. All 2. N/A

<p>Australia and New Zealand Health Policy 6:20</p>	<p>Detailed description of data collection & analysis processes. Several themes emerged in relation to the factors affecting policy change:</p> <ul style="list-style-type: none"> ○ Availability of local & general evidence ○ Availability of external funding ○ Council culture of integration & multilevel/cross council communication ○ Lobbying from the community ○ Local government has limited powers to act currently defined by State government legislation 	<p>off councils with greatest health disparities have least resources to address them)</p> <p>3. Council has integrated approaches, strong leadership & a community that advocates for change.</p> <p>Barriers to change included a perceived or real lack of power to make change (lack of evidence based, collaborative, multilevel integrated approaches) & the complexity of the legislative framework.</p>	<p>DH: 6 Daly: I</p>	
<p>Ashe M. Feldstein LM. Graff S. Kline R. Pinkas D. Zellers L. 2007 Local venues for change: Legal strategies for healthy environments. <i>In Journal of Law & medical Ethics 35(1): 138-47</i></p>	<p>Exploration of potential ways in which local policy change can encourage healthful behaviours</p>	<p>Examines 4 possible venues for policy change</p> <ol style="list-style-type: none"> 1. school environment 2. built environment 3. community facilities 4. point of sale environment <p>Emphasises potential to use taxes & fees to pay for nutrition work & possibly reduce consumption of unhealthy products.</p>	<p>Informed discussion. Abstract only obtained DH: 6 Daly: IV</p>	<p>1. Built & Economic</p>
<p>Nexus Study 2005. <i>Regulatory fee assessments: Nutrition related municipal service.</i> Prepared for Shute, Mihaly & Weinberger LLP</p>	<p>Expert opinion: Californian legal opinion to justify the role of municipalities in levying regulatory fees to support obesity related activities at the local level. Covers 2 areas relevant to FS</p> <ol style="list-style-type: none"> 1. farmers markets in low income areas 	<p>Emphasises the capacity of local government to use its regulatory & fiscal powers to support obesity prevention strategies.</p>	<p>DH: 6 Daly: IV Of limited relevance to Victoria as local govt cannot raise taxes.</p>	<p>1. Economic</p>

	2. financial incentives & technical assistance for neighbourhood retailers to improve food selections			
Department of Human Services 2005 <i>Donating food to charities in Victoria</i> State Government of Victoria. Melbourne	Information sheet on whether excess food can be donated & under what circumstances, designed to support the donation of excess food for charitable purposes.	What the law says To support and encourage businesses to donate food, Victorian legislation provides indemnity for organisations that donate safe food to charitable organisations. The <i>Wrongs & Other Acts (Public Liability Insurance Reform) Act 2002</i> , offers protection to food donors as long as certain pre-conditions are met re food handling.	N/A	Social Public Health

