

# Community Gardens: A Natural Way to Wellbeing

By

Simon Fountain

Submitted as part of course requirements for  
Graduate Diploma of Health Science [Community Health]  
Yooroang Garang: School of Indigenous Health Studies  
Faculty of Health Sciences  
The University of Sydney

December, 2000

Co-ordinaotr's Copy



## Acknowledgment

I would like to thank my lecturer Freidoon Khavarpour for sharing with me his experience and advice. Freidoon has always been available to discuss my topic and the research process. He has been a cheerful and supportive advisor.

I would also like to thank the community gardeners and others who have shared their experiences and opinions on this topic.

Lastly I would like to thank my partner Claire for her patience and her computer advisory service.

## **Abstract**

*Community gardens provide social, economic and environmental benefits to local urban communities. These include individual and collective social wellbeing, access to cheap, nutritious food and improved functioning of the local ecology. Although regarded by some as a neutral project to organise a community around, community gardening is still highly political. When planned, organised and run by local people and located centrally in the community, (particularly disadvantaged communities) these green spaces offer multiple health benefits that prevent disease and promote wellbeing, a sense of citizen control and social capital. Most indicators suggest that community gardening movement has enjoyed varied success in building healthier Sydney communities. However the intrinsic effects of this low cost, low-tech community process is hard to compare and measure. Challenges include security of tenure, establishing appropriate policy and planning guidelines with local councils and departments, ensuring active and full participation of those community groups 'at risk' and developing persuasive evaluation systems to meet these challenges. It is suggested that community gardens reflect the wider social, cultural, structural elements in the society as well as the human processes that ultimately enable or restrict healthy living.*

<b>Content</b>	<b>Page</b>
<b>Background</b>	<b>6</b>
Research Topic	
Introduction	
Relevance of this Research	
<b>Chapter 1.- Review of Literature</b>	<b>10</b>
What Constitutes a Community Garden?	
History of Community Gardens	
The Australian Experience	
<b>Chapter 2.- The Benefits of Community Gardens</b>	<b>17</b>
Social Benefits	
Ecological Benefits	
People-plant Interaction	
Economic & Nutritional Benefits	
Access to Healthy and Affordable Food	
Psychological Benefits	
The Gardeners of the 'Third Age'	
Disabled Gardeners	
<b>Chapter 3 - The Challenges to Sydney's Community Gardens</b>	<b>35</b>
Raising the Profile of and Security of Tenure of Community Gardens	
Provision of Community Gardens in the Local and State Government Policy	
Attracting and ensuring full participation of new gardeners	
Developing practical and persuasive evaluation systems	
Maintaining cordial relations between the gardeners, land-holders and neighbours	
<b>Chapter 4 - Methodology</b>	<b>42</b>
The Method	
Data Collection Process	
The Advantages of Using Critical Analysis	
The Disadvantages of Using Critical Analysis	
Summary	
<b>Chapter 5- Discussion</b>	<b>48</b>
Five Different Community Gardens:	
-Claymore Project	
-Glovers Community Garden	
-Stella Maris High School - Manly	
-Waterloo Estate Community Gardens	
-Cook Estate Flower Garden	
<b>Chapter 6- The Outcome</b>	<b>56</b>
Community Leadership	
Building Trust	
Community and Intersectoral Collaboration	
The Future of Sydney's Community Gardens	
<b>Chapter 7- Conclusion</b>	<b>63</b>
<b>References</b>	<b>67</b>

I, Simon Fountain hereby certify that this Integrative Paper, titled Community Gardens: A Natural Health Promotion Process, being lodged herewith for examination is my original work, unless otherwise acknowledged.

I certify that it has not been submitted, in part or whole, for a higher degree in any other university and/or institution.

I understand that if I am awarded the degree of Graduate Diploma in Health Science [Community Health], titled Community Gardens: A Natural Health Promotion Process, being lodged herewith for examination, the Integrative Paper will be lodged with the College Library and will be available immediately for use. I agree that the Head of the Yooroang Garang: School of Indigenous Health Studies and College library may supply a photocopy or microfilm of the Integrative Paper to an individual for research or study or for the use of other libraries.

Signed.....



Date.....



## Background

***“We like to say, we not only grow plants, we grow people!”  
(Perth City Farm 1996)***

The purpose of this research study is to identify what potential benefits and differences Community Gardens can bring to local and urban communities health in Australia. My interest in community gardens has been supported by my involvement in a local bush regeneration group and small vegetable garden my partner and I tend in the flats where we live. Community run gardens appear to be practical ongoing health initiatives that can address the physical, ecological, economic, social, psychological, educational and political determinants of the broad health needs and wellbeing of those community participants and nearby residents.

The World Health Organization’s (WHO) view on urban health “is not only a characteristic of individuals but also of a ....community” (Baum 1998, p.14). Health is seen in the broader terms of the original WHO definition as the “complete state of physical, mental and social wellbeing, and not merely the absence of disease or infirmity” (WHO, 1948). This view of health has evolved to stress the environmental factors (social, economic and ecological) that form the qualities of a ‘Healthy City’ or community ‘setting’ (WHO 1995a, p.4) and protect the resources that ensure a healthy planet. As such health influenced by community gardening is ‘wellness’ oriented and follows the principles of the New Public Health and Primary Health Care approaches.

Community gardens are described by gardeners with phrases like: 'growing people', 'self-reliance', 'self esteem', 'need to get my hands dirty', 'peaceful', 'exercise and fresh air' and 'get us back in touch with the earth and each other'. Community gardens offer many different healthy choices that can...." foster personal growth and quality of life, in so doing reduce disease, premature deaths and disability. (Tones 1996, p.20) The unique (certainly for urban communities) natural and public setting of community gardens offer a sustainable, self directed approach to health prevention, promotion and maintenance. This community development approach to health reduces the need for 'medical expertise', requires less 'outside' health intervention and can improve community health in the longer term.

### **Research Topic**

The research questions that provided the framework for this paper are:

1. What constitutes a community vegetable garden? (particularly in the Australian & Sydney context)
2. What are the community benefits of urban vegetable gardens?
3. What are the challenges facing community vegetable gardens?
4. How effective is the use of community vegetable gardens to promote health and build strong communities?

## Introduction

Study of the literature revealed three distinctive and emerging themes in the context of community based gardening. One was a global model of social/political development that advocated for the broader concept of 'urban (Smith, 1996) agriculture' to assist people in the developing world to build 'healthy cities'. Secondly was a body of work based around the principles of 'Permaculture' which is defined by Mollison & Holmgren (1981) "of working with, rather than against nature; of protracted and thoughtful observation rather than protracted and thoughtless labor; and of looking at plants and animals in all their functions rather than treating any area as a single product system" (P. i). More often than not these books provided the practical steps to get involved in 'hands on' gardening and Permaculture.

The third theme of community gardening related to community development and urban 'greening' (Malakoff, 1998, p. 1] This community development research is centered in America and Canada where urban gardening projects have been established for many years. Focusing on community empowerment and socio-ecological dimensions of health, this work is disseminated and supported by many University Faculties and influential community gardening organisations. Local Australian and Sydney information on community gardening is largely sponsored by Government waste education programmes and community based Permaculture groups.



## **Relevance of this Research**

I hope to make a modest contribution to the study of Sydney community gardens with this paper. This document will identify and discuss the relevant issues, benefits, challenges and effectiveness of community gardens. My research is a comparative study that will probably not change community health practice. However I hope it will identify some specific factors that limit and enhance community gardening in Sydney in the year 2000. My involvement with developmentally disabled community members and my interest in ecology place me in a good position to advocate and mediate for community gardening now and in the future.

Much of the local research and commentary has been written by professionals employed by local government. While the material from American researchers and community gardening associations are more 'citizen based' but lack specific cultural and environmental relevance for Sydney. This paper tries to achieve a balance between the local and overseas literature. Where possible I have attempted to integrate any personal observation and anecdote to give the paper greater variety and authenticity. The potential for community gardens in Sydney in their many forms and sizes is significant. The flexibility of these often previously unused spaces to fulfill the broadest concepts of health are appealing.

## Chapter 1 - Review of the Literature

### What Constitutes A Community Garden?

*“No two community gardens are the same”(Community Gardens Network, 1998).*

Community gardens are difficult to define due to the considerable variations in their purpose, design, location and participants. Different community gardeners, health professionals, horticulturalists, researchers and administrators all have their own understanding and varying philosophies of what constitutes a community garden. Warman (1999) sites two opposing academic viewpoints from Barker and Ashelford that exemplify the debate. “Some only consider a garden a community garden if the users are the instigators, developers, and maintainers of the site”(Barker 1997) while “Thomas Ashelford classified a certain project as a community garden when it was completely developed and built without any input from the community”(p.5).

The meaning of ‘urban’ and the ‘boundaries’ of urban areas, is also much discussed. This is particularly the case amongst researchers searching for “standardization of definitions and design so that quantitative data can be collected and compared”(Tinker 1994, p. 1). In my study the term ‘urban simply refers to an area within the urban metropolitan area. It would be useful to keep in mind the urban concepts as outlined by Jac Smit et al (1996) “...the entire area in which a city sphere of influence (social, ecological and economic) comes to bear daily and directly on its population”(p.9). Smit also states that “urban is

distinguished (here) as the agricultural product that gets to city markets or consumers the same day it is harvested”(p.9).

The Concise Oxford Dictionary defines a garden as a ‘cultivated’ piece of ground devoted to growing flowers, fruit, or vegetables and as a place of recreation (1982, p.406). Community is defined as an: organised political, municipal or social body; living in the same locality (1982, p.190). To expand on these definitions the working document of the South Sydney Community Gardens (1998) outlines how (1) “a garden may be used for growing herbs, flowers or food , conserving rare plants, nurturing the re-emergence of nature, creating an orchard or food forest, developing sustainable technologies, artistic expression, a meeting place, a quiet retreat, for community education and composting” and (2) “a community garden is a multi-functional place with a great diversity of spaces, plants, environments and opportunities. They attract people from a wide cross-section of the community, satisfying an enormous variety of interests and needs”(p.2). Community gardens have the potential to address issues of: food security, community building, Agenda 21 (the 1992 United Nations blue print to achieve sustainable development at local government level), agricultural Biodiversity, indigenous Biodiversity, waste minimisation and water conservation.

“Community Gardens are unique forms of public open space and are managed by the community”(Community Garden Network 1998). The question of control of community gardens is very important to the promotion of health and community

development. For many gardeners, facilitators and researchers this participation and power is an essential and distinctive part of the community gardening process. Marti Ross Bjornson (1994, cited in Malakoff 1995) has coined a community garden driven empowerment process called "greenlining". "The simple act of starting a garden can teach previously powerless people how to get access to city hall, and it can change the perception of the people with power who are looking into the community for the first time"(p.7). Bjornson sees community gardening as a 'political' activity.

Community gardening is not to be confused with 'Urban Agriculture' which largely relates to food production in the third world. Urban Agriculture includes the broader generation of animal products, non-edible products and ...."pre-production and post-production processes as well as waste recycling processes" (Smit 1996, p.10). Community gardening is an adaptable and multi-use community development strategy that is consistent with the following economic, environmental and community movements: *Healthy Communities; Community Economic Development; Social Ecology ; The Green Movement ; Bioregionalism ; Indigenous World View ; Appropriate Technology and Sustainable Development*. Many of these are new philosophies that have very old origins.

### **History of Community Gardens**

**"In all parts of the world, ancient civilizations developed urban agriculture systems to feed the cities"**  
(Smit 1996, p.28).

The Aztec, Mayan and Inca cities were self reliant in producing perishable fruit and vegetables(Smith, 1996, p. 12). Ever since these ancient civilizations relied on 'urban' produce, community gardening has promoted self-reliance, social assistance and social control in local communities. The Gaza Urban Agriculture Committee is using community gardens in schools and suburban houses to build the Palestinians food security and standard of living in the face of daily decreased access, equity and employment opportunities (Gaza Urban Agriculture Committee, 2000, p. 2). During the Great Depression in America, 'Relief' and 'Welfare' gardens were a central strategy of President Roosevelt's 'New Deal' (Warman, 1999, p. 15). Early in the 19<sup>th</sup> century in the UK and Western Europe, allotments were set aside for the urban working class (Grayson, 2000, p. 1). There was an explicit Government and industry interest in keeping these workers healthy, productive and 'welfare free'.

Before "modern urban sanitation systems were developed in the later part of the 19<sup>th</sup> century, urban agriculture was the principal treatment and disposal method for urban wastes"(Smit 1996). A socialist gardening movement "provided an important social and organising underpinning in the pre World War One period" (Grayson 2000, p.1). "Liberty Gardens' were a successful form of food production and patriotism during World War I. During the Great Depression of the early 1930's there was a renewed interest in community gardening as a means of food production. During World War II, 'Victory Gardens' in Britain and America once again became a necessity. In the post war years the tradition of

community gardening and tending allotments declined. "...with the advent of internal combustion, refrigerated trucks, and modern sanitation systems, the circle was broken"(Rauber 1997, p.1).Despite this modernism, some European countries like Russia have a longer tradition of relying on this food to survive. In St. Petersburg, rooftop gardens provide vegetables for city people with no access to land or plots outside the city (Gavrilov, 1997, p. 1). Economic hardship and shortages of basic food stuffs are common place in most Russian cities. Unsupported by the city administration, rooftop gardens have been adopted by the city apartments and St. Petersburg's largest prison. "They (the prisoners) prefer to be in the open rather than stuck in a cell and their gardens were in excellent shape"(Gavrilov 1997, p.2). Another garden has been started in the Artificial Limb Institute providing training and rehabilitation for young veterans from the war with Cechnya (Gavrilov, 1997, p.2).

While in more affluent western European cities, community gardens are in great demand. In the United Kingdom with its local government approved system of allotments, the waiting list in London is reported to be in the thousands (Grayson, 2000, p. 1). In Germany, 'Kleingarten' or 'urban retreats' are recognised for their health benefits, and a vital connection with nature in their heavily industrialised cities (Grayson, 2000, p. 1). The experiences of American urban 'greening' and farming over the last 20 years, has a strong 'social justice' background with the emphasis on urban revitalisation, organising the poor and minorities as well as a strong environmental/ecological history. Riding on the impetus of 'greening' or

'social action' objectives, community gardening has become a global movement often backed by National Federations and government support in many western countries.

### **The Australian Experience**

The origin of community gardening in Australia started in the 1970's in inner city Melbourne. This was "a decade characterised by increasing concern over environmental conditions, greater leisure time and changing recreational activities"(Grayson 2000, p.2). Not to mention political activism and the introduction of community health initiatives with the Whitlam Labour Governments Rainbow Paper. This collaboration between local groups and councils in the suburbs of Nunawading, Collingwood and Brunswick spread to other Melbourne communities.

Glovers was Sydney's first community garden which was established in 1985. There are now 24 community gardens in the metropolitan area. These gardens range in size and function from small, low cost inner city neighbourhood gardens to larger suburban farms that employ staff. Consisting of a mixture of communal areas as well as individual allotments these gardens are supported by a network of education centres, food co-operatives and organic markets. Australian community gardens are now represented by numerous community based interest groups, local government and a national body, the Australian City Farms & Community Gardens Network. Last year Australia's Open Garden Scheme (a

self funding, non-profit organisation) provided grants totalling \$50,000 to thirty community -based gardening projects (Opengarden, 2000, p. 1). To illustrate the diversity and effectiveness of Sydney's community gardens I will outline 5 gardens at the end of the literature review.



## Chapter 2 - The Benefits of Community Gardens

The Ottawa Charter for Health Promotion(1986) defines the fundamental conditions and resources for health as “peace, shelter, education, food, income, a stable ecosystem, sustainable resources, social justice, and equity” (p.5). This focus highlights the unavoidable connection between human health and the health of the environment. Keeping the framework of the Ottawa Charter in mind, this paper identifies the following benefits that can directly lead to improving communities physical, emotional and psychological wellbeing. Where possible the paper focuses on the impact community gardening has had on those groups in society that experience a disproportionate health and socio-economic burden. The literature review starts broadly and internationally, gradually focuses on Sydney community gardens and then finally pinpoints Sydney’s inner city community gardens.

### Social Benefits

***“Community development begins with the conscious decision that what happens in your street is the one thing you can affect in the world” (Bell 1992, p.107).***

This quote relates to ‘opting into’ a social process of community gardening. It is where people who share a common interest work together to improve their health by creating supportive physical and social environments. In this context community gardening is a socio-environmental approach to health promotion. This approach uses a community development model to strengthen communities “where living conditions or non-behavioural health problems are identified as a

matter of concern" (Labonte 1991b). Ilona Kickbusch (1996) neatly summarises this health perspective as "...those elements which contribute to the health, quality of life and social capital of a society. And they can only be 'produced' by an organised partnership-based community effort"(p.269).

This gardening effort (whether the participants are aware of it or not) is a form of empowerment. McArdle (1993) described empowerment as "the process whereby decisions are made by the people who have to wear the consequences of those decisions"(p.2). In context this means the professional horticulturist, landscape gardener and waste reduction officers have an 'enabling' role while the gardeners should have control over the design and running of the garden. The consequences are those positive and negative outcomes outlined in the Ottawa Charter for Health Promotion(1986). A powerful aspect of community gardens is that these consequences are largely positive and "there is rarely the sense that some benefit at others expense" (Community Resources Organisation 1996, p.5).

After reading the world literature, there is little doubt, that a citizen designed and controlled, community garden is also well organised and resourced and has the capacity to promote health by impacting on a range of social health determinants. The Community Resources Organisation in Baltimore (1996) argues that 'community greening'(of which gardens are a central part) are more effective than other community based strategies for the following reasons and differences:

- [A] "It is Community rather than individual, public rather than private".
- [B] "Urban Community Greening is a positive, unifying activity , with results, in neighbourhoods where few other unifying forces exist.....working side by side, differences (in class, gender and race) usually begin to fade".
- [C] "Community Greening can be used to easily address multiple issues at the same time".
- [D] "Community Greening teaches important positive skills from horticulture to stewardship to conflict resolution"(p.5)

Rather than the explicit political action described in some approaches to community gardening like Bjornson's 'greenlining', these benefits appear to have the right balance that typical Australian community gardeners and community health professionals would identify. The collective impact of community gardening appears to be more highly developed in America where there is often greater equity gaps and stronger identification with local culturally specific neighbourhoods. In Baltimore at the Shaffer-Miles Community garden the co-founder Dorothy Zeigler emphasises that "Gardeners are encouraged to 'Adopt-a Family' each season. Each gardener selects a family in the neighbourhood, who can't garden for one reason or another, with whom to share the harvest. And, the 'adopted families' benefit" (1998, p.1). This is social capital in action and is born out of a long history of civil rights and community organisation.

Probably a more attainable example of shared community comes from the past. An acquaintance of mine grew up in Glasgow in the 1940's and 1950's. One of the poorest cities in Europe, his family and many others had an allotment on a large council owned space called the '50 pitches'. He recounted how his father loved to go up to the garden, sit in his chair and smoke his pipe. The narrator became very animated as he remembered the glass house where his father grew tomatoes and leaks. He told of all the different produce grown, including huge flowers. Surrounded by working class people, it was common for the different tradesmen to do odd jobs for each other. He reminisced that these gardens formed a real community free of theft, vandalism and outside interference.

Half a century later there is an expansion of community gardens as an important place for Environmental and Science based Education as well as Art and Culture. In cities around America and now in Sydney, community groups and schools are using community gardens as an experiential teaching tool to learn about the local environment. Sculptures created by young people, photographic essays, environmental murals and community theatre are some of the creative cultural expressions taking place in community gardens. Mary O'Connell who organises artistic and poetry events at the University of NSW's Community Permaculture Garden reminds us that "Statues....fountains, sundials, symbols formed by metal or arrangement of stones or entire gardens fitted into a shape of

a symbol, coloured tiles, mosaics, pots, pools....they've all been part of the Garden since we have kept records" (2000, p.2). This type of deeply felt artistic expression along with education, empowerment and social justice are all different social benefits that rarely occur in isolation of the other benefits associated with community gardens.

### **Ecological Benefits**

**"While local initiatives cannot solve the ecological crisis which impact on cities, they can empower communities and foster incremental improvements in the quality of life at a local level"**

**(Perlman 1994 p.86).**

There is a close and overlapping relationship between social and ecological concepts of health and socio-ecological benefits for communities. In the Borough of Sandwell in the West Midlands of England a local community development programme believes that their co-ordinated approach to community agriculture will lead "... to the realization that environmental regeneration and the regeneration of Sandwell's people are inextricably linked". Closely attuned to Kickbusch's ecological model for public health, is the holistic Human Ecosystem of Health (Hancock & Perkins 1985) or "The Mandala of Health". Incorporating a sociological and environmental analysis of health, this model recognises two principles of public health, (1) ecological sanity (a healthy, stable and safe ecosystem) and, (2) social justice (an equitable distribution of wealth and thus health) (cited in Knight 1998, p.146). This combination of ideals forms the basis

of the new public health movement and shifts the emphasis off individuals to communities, societies and the health of the planet.

Kickbusch argues “that health is a fundamental resource to the individual, the community and to a society as a whole and must be supported through sound investments into conditions of living that create, maintain and protect health”(1989, p.267). An ecological perspective provides a useful way of looking at social health needs when there are competing power relationships and influences and often little available data. Health workers and administrators (particularly those from outside the communities they represent) are not always the best decision makers in regard to the environment and sustainable health practices. By focusing on the long term dual ‘end’ outcomes of ecologically sustainable planning and quality of life, a balanced approach to health is achieved. Placing the physical environment parallel with the social environments ensures a continuum of natural and human management. Thus ‘natural justice’ and ‘social justice’ work together. In this sense there is a universality about community gardens, being a central point for human as opposed to economic values and for the practice of sustainable local development.

Roseland (1994) argues that “Sustainable development must therefore be more than merely ‘protecting’ the environment: it must be development that improves the human condition while reducing the need for environmental protection”(p.71). This is the essence of health promotion where individual behaviour change “is

but one of the interconnected strategies that have a clear structural and community development focus” (Knight 1998, p.152). Community gardening is a practical model of change gently modelling for this and future generations. The responsible use of local resources can incrementally improve the health of the immediate community and those receptive to this active form of community development.

### **People-Plant Interactions**

The American Community Gardening Association explore the benefits of ‘community greening’ and offers some ecological theories. Diane Relf(1990) from the People Plant Council (PPC) categorises several theories of “people-plant interactions”. One category of research is the study of ‘background theories’ “which try to explain the underlying reasons why people have positive responses to plants and green spaces” (p.3). These undefined theories are of an ‘ecological’ and ‘evolutionary’ orientation and make the link to our ancestors environments and the need to escape the stresses of modern living.

A second category of research is how individuals respond to plants and green spaces. The researchers “suggest that nature’s restorative value is a key to healthy living for everyone...” (Kaplan 1973, p. 4 cited in Malakoff, 1998). Specifically Kaplan believes that....”A visit to even a small garden, for example, can offer a person the feeling of ‘being away’ from a stressful setting (such as

work)" (p. 4). This is a psychological tradition recognising the importance of "Ecotherapy" for urban dwellers.

The third and most interesting research category is the role that plants and greening activities (like community gardens) play in developing healthy communities. The three roles identified by Kaplan include: provide a more livable environment; help create a positive community image; and create opportunities for people to work together to improve their communities. Francis (1989) similarly believed that central to the "unique social and economic benefits" of community gardens was the process of development and control by the local residents". (p. 8) Francis "concluded after a 1987 study of parks in Sacramento, California. "Gardens are active places that people make themselves, use for work and socialising, and can 'love', he found" (p.5). Community Resources (1996) suggest "...those who invest physically in their community, are more likely to care for it" (p. 4). This dimension of community ownership has been dramatically practiced in the example of the Claymore Community Garden in the outer western suburbs of Sydney and will be examined later in this study.

A case study from inner city Sydney reflects how community gardens can play a role in 'resource diversion'. The Angel Street garden in Newtown was established in 1991. It is situated on Department of education land and is part of the South Sydney Community Garden Network. The garden operates communally and Permaculture is the guiding philosophy. There is a communal composting



system. The stated aim of Angel Street is to reduce inner city waste. "This includes compostable organic waste, green waste and other useful materials which can be diverted from landfill" (Grayson, 2000, p. 3). For example, every year the 20 participating residents divert 10,000 litres of food scraps every year. A local Macro Wholefoods supplier provides twice that amount of food scraps while the NSW Mounted Police supply 20 tonnes of stable sweepings a year for the garden.

This private and public co-operation is a significant coalition and a essential part of health promotion and sustainable inner city living. Rhonda Hunt (2000) is the local Waste Education Officer for this South Sydney garden. She observes that the initiatives used at Angel Street and other inner city community gardens "represent a great reduction in waste, truck movements, noise, as well as improvements to air quality and general amenity"(p.1). Green waste, organic waste and building materials are examples of materials which can be diverted from landfill to feed into Angel Street for free.

### **Economic & Nutritional Benefits**

**"Make healthy choices, easy choices" (WHO, 1986)**

Community gardens can provide an important setting for 'healthy choices'. Their central presence in a community provides nutritional foods for 'at risk' population sub-groups including those people who have newly arrived as refugees or immigrants. Community gardens provide a preventative resource to "promote the

knowledge, skills and supports which will enhance and sustain good nutritional health”(Smith & Smitasiri 1994, p.2). The authors affirm “The food choices of the growing numbers of urban poor are limited by economic constraints”(p.3).

Access to nutritious food for people who have little money or those that enjoy fresh organic food is a real benefit. Community gardens supplement incomes spent on vegetables and fruit bought at supermarkets and has been proven as a reliable source of local urban food supply. The Community Gardens Network of South Sydney lists the benefits as “free food, nutrition, fresh & local organic food and the control over the food we eat”(p.4). Grayson also points out that among the many different answers as to why people garden, is the importance of....”a love of food and cooking”(p.1).

Nugent (1999) suggests a research development measurement of the sustainability of urban agriculture that is equally as relevant for community gardens. “Urban agriculture is sustainable if the benefits exceed the costs over a relevant period and the impacts are equally distributed”(p.34). This work conducted at the International Development Research Centre (IDRC) Ottawa, is a reminder for the local gardeners and facilitators that there needs to be some economic and equitable bottom line to legitimate the prerequisites for health enshrined in the Ottawa Charter (1986). Grayson (2000) asserts that “Community garden productivity is far below the potential food production capacity” and variable across different gardens”(p.5). He sites horticultural experience, plant diversity and “the comparative cheapness of foods in

supermarkets and the availability of income is most likely responsible for community food production having a lower profile than it has in some developing countries”(p.5).

Community gardening utilizes unused resources in the city like food waste and vacant land. “Sustainable urban food systems can form a closed loop if they reduce the need for cities to import resources to satisfy their production and consumption needs and reduce the amount of waste leaving the city for disposal elsewhere”(Nugent 1999 cited in Smit, 1996, p. 64). Developing and maintaining a community garden can also be cheap in comparison, with the work done completely by the community compared with landscapers, private contractors and council employees.

In San Francisco the Department of the Environment established a ‘Sustainability Plan’ for the city in 1996. The city has been at the forefront of social and environmental change in America, and shares a similar cultural diversity and physical environment to Sydney. Using the Ottawa Charter as a framework (e.g. Healthy Public Policy) some of the long term objectives include:

*“...an action plan to increase accessibility to community garden space and increase acreage managed by urban land trusts; exclusive use of organic agriculture techniques across all sectors and establish educational programs explaining the benefits of urban farming participation and organic techniques”*

(p.7).

Research conducted by the American National Gardening Association found that 300,000(1% of the population) households report using a community garden and 13.5% said they would like to be involved in a community garden programme (People-Plant Council News, 1995, p. 2). Another study evaluating Philadelphia's Urban Gardening Project (one of the largest in America) revealed that "gardeners ate fresh produce from their gardens 5 months of the year; 62% of the gardeners preserved some of their harvest; food was shared with neighbours and relatives on a weekly basis; more than 40% of the gardeners shared food with a church or community organisation; gardeners consumed significantly more of six vegetable categories than non-gardeners; their vegetable consumption was almost higher than controls....more likely to eat vegetables in meatless meals and....consumed less milk products, sweets and sweet drinks". And, as the Baltimore based Community Resources organisation affirms, trees and plants grow and their value increases over time (p.6).

Urban gardeners in Australia enjoy some advantages over country farmers. "Urban farmers have much more ready access to organic waste. They typically grow multi-crops rather than mono-crops, so the need for pesticides just doesn't occur. And while the rural farmer often has no idea of the market (for fruit and vegetables), the urban producer talks to shoppers and restaurateurs on a weekly basis" (Smit 1996). The Eveleigh Street community garden in Redfern, Sydney, cultivates 'bush foods' which could appeal to the consumer market. The increasing demand for fresh organic produce provides opportunities for

community gardens to potentially sell niche produce. And as Claire Cummings (1997) observes, this type of 'micro-response' to the globalised food system is...."about taking back the ability to produce food for ourselves. At the grocery store, you not only don't connect to the food system, but your money goes out of the region"(p.2).

### **Access to Healthy and Affordable Food**

The access to healthy, affordable food and an equitable system to distribute this essential consumption item could be particularly useful to isolated communities. Experiencing lower overall health status and with restricted access to reasonably priced fresh healthy foods, community gardens and food co-operatives enable these partially dependent remote communities to develop skills in growing and preparing their own healthy food. The simple act of growing a single vegetable that is visible and has value can be the first step to greater economic independence and self reliance. These initiatives can help in preventing disease and promoting healthier lifestyles and environments. The co-operation, physical work and sustainable practicality of community gardens and food co-operatives helps reduce the labelling of these projects as only for low income or welfare dependent people. The increasing cost of petrol which is then passed on to road transportation, ensures that multi-crop community gardening makes good economic sense. Community development projects like gardens and co-op's can also be used as purposeful places to build community run business and provide employment and work experience opportunities.

One such example is the community garden and co-op being facilitated by the Inner Southern Community Health Service in South Australia. "Increasing access to cheap, healthy food will impact positively on the health of Aboriginal families, especially those families where diabetes, raised blood pressure and cholesterol are a health concern"(Anderson & Wanders 1998, p.1). The Food Co-op Community Garden as this whole project is called, first established the Food Co-op. "It is envisioned that local people will use their gardens to grow healthy foods (fruit and vegetables) and these in turn will be sold at the Food Co-op" (p.1). It is hoped that the Food Co-op will be self sustaining and fill the dietary and ease of preparation needs of this community. The authors of this conference paper point out that...."Many Aboriginal families are large and shopping in supermarkets can become a huge chore and even embarrassing at times"(p.1). A third dimension to this community development approach is the role of the community garden in providing a "work site for community service workers and also to be part of the Community Development Program"(p.1). In this way the use of community gardening has a 'significant multiplier effect' (Smit 1996, p.169) on this community's economy.

### **The Psychological Benefit to Gardeners of the "Third Age"**

**"Using horticulture for healing has a long history. As early as 1699 Leonard Maeger,**

**writing in the English Gardener advised his countrymen “ to spend their time in the garden, either digging, setting out, or weeding; there is no better way to preserve your health”**

**(Levenston 1998, p.1).**

The recognition and popularity of community gardens over the last decade has less to do with economic necessity and more to do with a social and psychological process. The autonomy and freedom felt in the running of a community garden is of particular importance for the disabled and the aged. Experiencing greater disadvantage, discrimination and multiple health problems, these citizens often live in physical and social environments that are not conducive to autonomy, wellbeing and a balanced quality of life.

In the local Drummoyne community bush regeneration project, the most active members are those in their 'third age'. On the golf course where I support a young man with a developmental disability who works with the 'older' gardener, the keenest observers and complimenters of the gardens are the senior players. The camaraderie around this beautiful course is palpable and connected to the social bond created by this natural setting. It is not surprising then that this group is strongly represented in community gardening. As the stereotypes of 'ageism' and chronological ageing are dispelled, people who are active citizens and gardeners into their 60's, 70's & 80's will make a contribution in community gardens. Most Australians are living longer, living more consciously and retiring

younger. And as they mingle with younger people in 'green spaces' the barriers of age are further minimised.

"Both rich and poor have found the joys of gardening adding to their life. Some have done it to save money, due to the high price of food, and improve their diet while others are gardening for hobby and exercise" (Bassett 1979). Sydney community gardener Nan Barbour believes every person regardless of their age or disability 'has the right to garden'. While residents of hospitals, nursing and retirement homes partake actively and passively in the kaleidoscope of benefits community gardens can bring to their lives.

### **The Psychological Benefit to Disabled Gardeners**

**"Everybody can garden, regardless of politics, age wealth or background. We want to demonstrate that a disability need not be a barrier to enjoying the benefits of gardening" (Levenston, 1988).**

The City Farmer, Canada's Office Of Urban Agriculture, reports on the benefits of community gardening as therapy in Canada and North America. Horticultural therapy was used in veterans hospitals following the World Wars, to help men with physical and emotional disabilities recover from their experiences. In an early form of health promotion, volunteers from garden clubs were the 'enablers'. They shared their hobby of gardening and...."There are now more than 250 registered Horticultural Therapists in North America working in a wide range of settings, from nursing homes to prisons, to schools to hospitals, they are trying to



ease mental and physical distress and provide creative, recreational and vocational activities for people who often have very few such outlets”(Levenston 1988, p.1). This has translated into a national employment project run by the America Horticultural Therapy Association which has placed 1000 disabled people into a variety of horticultural jobs.

Traditionally people with disabilities (physical, developmental, psychiatric, acquired brain injury) often don't have the resources or the encouragement to be active gardeners. Typically they are reliant or constrained by family, institutions or service providers. Specific community gardening health outcomes include reduction in stress, improved motor skills and positive effects on personal health behaviour through a blending of exercise and nutritional information. Community gardening provides an opportunity to become competent, make decisions and operate independently of their social and economic dependency. “This can bring about a tremendous improvement in feeling of self esteem” (Levenston 1988, p.2). This increased self esteem has the potential to make a positive impact upon their coping skills, ability to manage their work and home environments and overall quality of life.

Being outdoors in different weather, sweating, bending, talking, making decisions and getting dirty is a very different approach to professional models of health care. What may seem intangible and very difficult to measure by doctors, clinical psychologists and public health bureaucrats can make a difference for these

marginalised groups who rely upon community level development and initiatives to bolster their health status. In Vancouver a pilot programme developed by Michael Levenston, has led to a horticultural therapy handbook and the adoption of similar strategies in other institutions. The participants' viewpoints and voices included the key quotes from a former fireman...."It gets me right back into the realm of gardening, gets me involved...." From a young wheelchair bound woman, "....I go and take care of the garden every Saturday, when the horticultural assistants are off-duty" (p.3). In these examples this gardening therapy is a psychologically reinforcing pursuit, if not practically under their control.

### **Chapter 3 - The Challenges to Sydney's Community Gardens**

The relevance, sustainability and structure of community gardening pose various challenges for community workers. Dena Warman (1999) in her study on community gardening in the Waterloo region of Ontario, highlights the diversity and differences of participants and organisation but argues that "Even with these differences the goals are often the same, to have good food and a strong community" (p.27). Grayson & Campbell (2000) have written an evaluation paper on Sydney's community gardens "to assist local government, community workers and others make decisions about the use of community food gardens as foci for social development, environmental improvement and food production"(p.1). The authors site four additional challenges to the list of those above mentioned.

#### **Raising the Profile of & Security of Tenure of Community Gardens**

Grayson (2000) summarises that the evidence from the Sydney experience has been that "Access to land is not usually a challenge to aspiring community gardeners" (p.5). However, if gardeners are to put effort and energy into developing and managing their local gardens "particularly where high value crops such as fruit trees are to be planted" (Grayson 2000, p.9), they need to know this public open space will not be sold or developed for profit. Most community gardens in Sydney are cultivated on public land or owned by local government or the State government. This has obvious advantages and disadvantages for the long term sustainability of some government controlled gardens. Smit (1996) affirms that...."when planners and economists regard urban agriculture as a

marginal, informal -sector activity, the bias spreads to the market and credit agents, to legislators and the general population” (p.211).

A key future challenge is to increase the awareness of this approach and its multi-use effectiveness at a community level. On a global level Smit(1996, p.197) warns there is a ‘socio-cultural bias’ against urban agriculture particularly at an institutional level. Although talking about the problems associated with ‘urban agriculture’ in the third world, there is a parallel to community gardens in cities like Sydney. Before policies and planning, the cultural, social and political perceptions and paradigms of the decision-makers need to be considered. Smit (1996) argues that these sociocultural biases “arise from outdated, European “city beautiful” views of what a city should be; some are related to local cultures. They often pertain to views about aesthetics, efficiency, hygiene and modernity in general” (p.211).

### **Provision of Community Gardens in the Local and State Government Policy**

The proposed integration of community garden provision into state and local government and environment planning is problematic. This proposition is supported by Grayson & Hunt (2000, p.12) in their recommendations for Sydney’s community gardens. Their thinking is that established government guidelines would facilitate the development of more community gardens and become part of ‘healthy public policy’. Warman (1999) warns “Often when city officials create policies, the people affected by these policies lose control over

the project, and hence control, vital to the actualisation of self-reliance....” (p.9).

Another related aspect is that in establishing a model of community garden land-use, the local development process is restricted. “City officials must recognise that people are different and that they must be able to utilise different approaches and processes” (Kaplan 1992, p.132).

### **Attracting and Ensuring Full Participation of New Gardeners**

If community participation and empowerment are the primary benefits of community gardening, then it is important to analyse how the participants feel what their needs are. There is very little literature that records the voices and individual experiences of a range of Sydney community gardeners. Using a literature review methodology makes it difficult to find out how local community gardeners would rate their involvement using a community organisation tool such as The Empowerment Continuum (Jackson et al, 1989). Labonte (1993) and Peterson (1994) “caution that empowerment can assume ‘romanticised notions’ and that some communities are not always healthy or empowering in their organisation and interaction” (cited in O’Connor & Parker 1995,p.181).

How healthy and empowering are Sydney community gardens? Will a vision of structural provision build communities capacity to control their health or diminish it? The principles of Permaculture stress diversity and the conscious design of human habitats which invites the participation of the users. Part of this diversity is about the range of different humans and their different needs. “Community will

only work, therefore, if it is designed by all these different people, rather than for them” (Bell 1992, p.102). How effective are the different gardens advocacy and political action initiatives especially in under resourced areas? Particularly in these disadvantaged areas, is power sharing with government agencies preferable to no structure and leadership? How supportive is the local council and what level of participation do the gardeners and their enablers enjoy on the council committee?

Arnstein (1971:70) developed a Ladder of Citizen Participation. She proposed 3 degrees of ‘citizen power’ : citizen control, delegated power and partnership. Anything less than power sharing was considered ‘tokenistic’ or ‘non-participatory’. However, this ‘power’ is harder to achieve in real life. Rhonda Hunt(2000), Waste Education Officer with South Sydney Council, warns that “council interest in community gardens may start to dwindle if they continue to require large amounts of time from a staff position meant to focus on waste education” (p.3). At the end of July 2000 the Randwick Organic Community Garden had been evicted to make way for residential development. The same fate hangs over the Willoughby Community Garden unless local campaigning can stop these plans.

### **Developing Practical and Persuasive Evaluation Systems**

“ Because community gardens are informal entities, they lack specific objectives to measure their performance against. Progress is difficult to estimate” (Grayson

& Hunt 2000, p.7). It appears there is little local data or frameworks to measure the different indicators of impact and efficiency of community gardens.

“Measureable outcomes need to be established, both quantitative and qualitative” (Hunt 2000, p.3). The Baltimore based Community Resources provide an innovative Program Monitoring and Evaluation Service. Their system uses a participatory approach which involves stakeholders in the design and implementation of the evaluation. Working individually with each organisation or partner this proven service aims to provide relevant and practical information rather than hypotheses.

In Australia measurement of community gardens effectiveness is guided to some extent by Agenda 21(Earth Summit 1992) criteria. Agenda 21 is a worldwide sustainable development plan designed for local governments and councils. A broad community based environmental protection document, more specific social diagnosis is needed on community gardens. Local studies and data are needed to secure land tenure, funding and to establish greater intersectoral collaboration. Smit (1996) reminds us that greater compatibility is needed across the different ‘data sets’(p.240) (social scientists, health researchers, agronomists, waste reduction researchers and psychologists) and recommends visually recording and sharing survey data with institutions, interested groups and the public(p.250). Baseline and gardening system surveys, pilot projects, field trips and the identification and transfer of ‘best sustainable practice’ are all

important factors to bridge the gap between real participation and securing potential resources.

### **Maintaining Cordial Relations Between the Gardeners, Landholders and Neighbours**

Even if a community garden does not follow a political agenda the process is socio-political. That is, the people interactions and degree of leadership and ownership determine the cohesion, effectiveness and usage of any community garden. Mentioning my research to a friend, she recounted that some people in her area dislike community gardens because of the politics and hierarchy they found at their local Permaculture guided communal garden. From the outside though, this particular garden looks like a picture of harmony, abundance and creative spirit. This dichotomy is not uncommon and therefore a number of community gardens have established grievance procedures to resolve disputes amongst gardeners and stakeholders. Facilitators are often appointed to resolve any ongoing differences. Where these facilitators are employed by council or cannot represent the cultural or lingual values of the gardeners there is potential for problems.

Local residents in Glebe successfully opposed a proposed site for a community garden because "of fears over noise, smells and vandalism" (Grayson 2000, p.6). Grayson (2000) warns that "Such objections should be anticipated by community gardeners searching for land and should be addressed in their



submission for assistance from local government”(p.7). In a public meeting during the Waverly Community Garden proposal (1999) the minutes record the following community issues: Hours of operation, fence height, noise, smell, location of compost trays and shed, pests and vermin, water runoff, security, vandalism, locked gate and access rights of residents. The outcomes and objectives addressing these issues were recorded as well.

The local experience of planning, developing and fighting for community gardens and the potential benefits they bring to urban community members are mirrored in many countries around the world. Maintaining the community relevance, legitimacy and participation in community gardens needs to be recognised by non-users and local government as well as the gardeners and affiliated organisations. There is some time before community gardens are comprehensively built into healthy public policy. Until that time, Warman (1999) warns that community gardening has ‘come full circle’ and despite the historical benefits, this form of land use is threatened. “Still the effects of gardening go un-legitimised and unprotected from the perils of the city (which ironically, is what creates the need for the garden)”(p.43). Typically most of Sydney’s twenty four community gardens exist without strong structural support or resources. The emphasis of creating healthy, supportive community gardens returns inevitably to the participatory structures and strategies used by each of these (predominantly inner-city) communities that create and live near these distinctive ‘green spaces’.

## **Chapter 4 - Methodology**

**“ In a sense everything you see represents the answer to some important social scientific question - all you have to do is think of the question”  
(Babbie 1998, p.308).**

### **The Method**

The primary method of research used in this study is 'critical analysis'. Critical Analysis is a qualitative approach used to analyse any form of communication. Unlike 'manifest' 'content analysis' which is interested in measuring the surface content of a communication (quantitative) or 'latent' 'content analysis' which interprets the underlying meaning of a communication, critical analysis objectively records the content without converting the findings to numbers or hypotheses. In this study reviewing Community Development based literature on Community Gardens found in library texts, council documents, electronic databases, and articles and websites on the Internet are the primary sources of information.

### **Data Collection Process**

Following initial library search two Sydney councils who promoted community vegetable gardens were approached and a copy of their guidelines and project outlines were obtained. This provided a useful basis for the practical steps involved in participating and developing a community garden. These 'working documents' also gave some background to their establishment and the different aims, outcomes and issues related to these different socio-economic and cultural 'settings'. Course texts from The University of Sydney's Community Health Programme Planning & Evaluation and Health Promotion subjects (Khavarpour,

1999) were used to clarify the theoretical models and approaches currently used in community health practice. The final and most significant stage of the literature review was to find specific, current community development and health promotion research and examples on the type of community gardens I would find in Sydney. This search would take a random international focus before narrowing to local experience and specific examples of Sydney community gardens.

For this information The University of Sydney's electronic databases was accessed and provided a small body of academic work. Searching on the Internet provided the largest resource base on community gardens as a social and practical tool for communities. The Internet searches provided recent international perspectives and examples of applied projects. This information proved easier to access and locate the latest updated viewpoints. Filtering through both the critical and subjective electronic sources surrounding community gardens provided a useful analysis process. Surfing the links from the numerous community and University based websites around Australia and the world was a quick way to access relevant streams of research and practice.

Relevant pamphlets and segments of conversation that relate to local self directed urban community gardens were also scanned. An unstructured and informal conversation with the community gardeners and a few friends helped the understanding of the social dimensions of the community gardening. So nearing the final stage of this unobtrusive study and surrounded by 'texts', there

was still need to match the findings with the social reality found in and around these 'social settings'. As a result four different community gardens near by were viszited. Without observing these different physical and social environments it would have been very difficult to critically analyse the social dimensions emphasised in the literature.

### **Why Critical Analysis?**

Critical analysis is an 'unobtrusive' research method that provides a 'non-reactive' distance to undertake a broad but focused literature review. Lupton (1999) describes "Unobtrusive methods of research as those that do not involve the direct interaction of the researcher with the source of data"(p.450). Critical analysis is an appropriate choice and another name for reviewing an existing or second hand source of information. By analysing the 'texts', inexperienced researchers can identify (and organise) patterns or tendencies in the 'texts' to consolidate and apply effective health promotion practice. This methodology allows the investigator a large amount of material on community gardens. By refining the research questions to mirror the key factors that affect the successful health promotion potential of community gardens (e.g. 'real' participation / multiple factors affecting wellbeing) a theoretical process/framework was finally constructed.

Observation of the four community gardens is one of the five main ways Kellehear (1993a) suggests to obtain good unobtrusive data. The emerging

critical analysis themes with the real people and communities involved with community gardening were finally emerged. Babbie (1998) states that one of the key strengths of field research is that "By going directly to the social phenomena under study and observing it as completely as possible, they (researchers) can develop a deeper and fuller understanding of it" (p.283). Two conversations were held with community gardeners (one anticipated and the other a surprise) provided an opportunity to explore a sense of their experience without interviewing or being a typical 'participant observer'.

### **The Advantages of Using Critical Analysis**

Critical analysis is cheap, time effective, easy to provide supervision and is a forgiving form of research where ethics, intrusion, politics and subjectivity (bias) are minimised. This is largely because "The texts for analysis are produced for reasons other than the research process itself" (Lupton 1999, p.451). Access to the latest information on community vegetable gardens is readily available using and improving the research skills needed of pro-active community health workers. This information comes from many different sources and perspectives which is important for a balanced process. This information can be reviewed over a period of time allowing the researcher to track the longitudinal changes and update their research if necessary. These elements strengthens the 'reliability' of critical analysis.

The brief field observations and conversations provided enough of the natural setting, people and interventions to raise unexpected questions and provide a

counter-point to the tendencies found in the literature. This natural observation and contact with the 'gardeners', provided validity to this study by clarifying the variables identified in the process of critical analysis literature.

### **The Disadvantages of Using Critical Analysis**

Critical analysis doesn't provide an in-depth analysis of research topic. "The approach tends to measure what was said at a very simple level and does not to take into account the 'deeper' or symbolic meanings of the messages" (Lupton 1999, p.453). To overcome these shortcomings use of ethnographic or observational research (e.g. semi- or unstructured interviews) would be the best approach. This is particularly true of this topic where personal outcomes are so varied and the 'social process' is different from one community to the next.

Another concern is how typical is the recorded information being collected. Most of the electronic and written material on community gardens comes from overseas and may not reflect what is happening at a community and local government level in Australia. Therefore the 'validity' or ability to generalise these findings is weaker. The field trips could be seen as mixing methodologies and bringing bias to 'inductive' research process.

### **Summary**

The choice of critical analysis is a practical one. The topic of community gardens is an interesting and practical one. It was partly chosen (apart from my own personal interest and involvement) because it might fit this research methodology better than other multi-faceted community health approaches. This topic can be understood by using critical research to reflect the critical issues of using this strategy to promote community health. The topic does not carry the same degree of sociological theory and debate as more complex health promotion projects (e.g. culturally constructed movements or policies) and is therefore suited to a critical face value analysis. However as I found out it is very difficult to formulate ideas on the key social dimension of gardening without observing these natural settings, the surrounding physical and social environments and who was and wasn't in the gardens.

## Chapter 5 - Discussion

**“Needs are best understood and satisfied by people who are closest to them and who act as neighbours to those in need. It should be added that certain kinds of demands often call for a response which is not simply material but which is capable of perceiving the deeper human need”**

**[Burke cited in Latham, 1999, p.9]**

An assessment of the communities health needs by those people directly affected will make a big difference to the relevance, adoption and impact of a community garden. The most effective way of presenting the different needs that community gardens must address is to outline five examples of gardens in Sydney. Not in a position to meaningfully assess these communities needs as a resident or local health worker might do, a Social Health Atlas of Australia was used (Glover & Tennant 1999) to gauge the broad indicators of social, economic and health service needs of these communities. As Mark Latham (1999), the Labour Member for Werriwa, asserts “the most reliable guide to someone’s employment, health and educational status is their postcode” (p.11).

### **Five Different Community Gardens**

#### **Claymore Project**

This example of urban renewal is possibly the most dramatic and influential contemporary example of the impact of community leadership and community gardening. Before December 1995, Claymore ( a suburb of Sydney Metropolitan area) was one of the most disadvantaged, stigmatised and unhealthiest of



Sydney's communities to live in. Characterised by inter-generational unemployment, street crime and social decay, no one wanted to move to this public housing estate. The NSW Housing Department transferred the management of several streets to manager Brian Murnane and the Argyle Community Housing Association. By fixing small things first like cleaning up rubbish, establishing an office in the worst street and reducing maintenance waiting times, Argyle started to build trust within the community. The establishment of a neighbourhood watch and patrol; the development of a strong Pacific Islander culture; ".....and most significantly, the shared benefits of a thriving community garden on a disused slab of public land" (Latham 1999, p.7).

Combined with improvements to housing and local security, the community garden at Claymore has enhanced social renewal and provided community food.

The effectiveness of these strategies have been:

- 1) To promote a two year alternative public housing ('Intensive Tenancy') management model in similar estates in South West Sydney. This model will use the same innovative participation initiatives and collaboration with local agencies.
- 2) To promote a community garden at the Claymore Primary School to foster participation and health education for the residents and citizens of the future.
- 3) A model of community development and social capital that has been quoted by politicians, and can be used by community leaders, health

workers, city planners, government agencies and community agencies to build healthy communities.

The Claymore Community Development and Garden is an exceptional example of community development and health promotion. The Argyle Community Housing Association and the local people have used all 5 key strategies of the Ottawa Charter of Health Promotion, namely *Building Healthy Public Policy, Reorient Health Services, Strengthening Community Action, Create Supportive Environments and Develop Personal Skills* (WHO, 1986).

### **Glovers Community Garden**

Sydney's oldest garden, Glovers is situated in the grounds of Rozelle Hospital in Sydney. Once a working class area, the people in this area now experience high socio-economic status and high health differential and hospital admission status. Physically, this garden is removed from residential streets, and reports to have 4 to 7 regular gardeners (which is reported by Grayson(2000, p.1) to be a moderate number ). Once used by the hospital for therapy, the access is restricted by privacy concerns for the few short stay patients remaining in some off the wards.

Glovers is a leafy organic garden that had one person composting the beds when one walks by. The gardener described Glovers as 'bio-political', having a flat hierarchy and very little to do with council that leases this space. The Permaculture philosophy is important and could exclude people who did not

embrace these ideals. This communal community garden has a formal acceptance period, which “ensures compatibility and commitment to the goal of working to obtain food rather than simply a social activity” (Grayson 2000, p.3). Given this focus, its location away from immediate community and the gardeners comment about Glovers being an ‘academic’ garden (where people are doing studies and thesis) there is no surprise that the greatest problem for the future is seen as attracting new gardeners.

### **Stella Maris High School - Manly**

A well known ‘ecogarden’, Stella Maris school is only a block away from Manly beach. People in this area report their health status as very high and enjoy high levels of income and employment. Funded generously by the Northern Sydney Waste Board, Manly council and the school itself, the garden is part of councils waste minimisation strategy. Local businesses have donated rainwater tanks and a solar electric panel and pump. Frequently opening the garden to the public, the EPA Earthworks, Manly Environment Centre, Manly Council and the school administration have collaborated with a hope that the public will become involved.

“Planted to herbs, vegetables, bush food and native plants, the gardens lead to a double pond to be used for aquatic ecology study” (Grayson 1999, p.1). The principal Allan Coman described how the garden had been built in an “....old, barren, neglected and disused part of the school” (Grayson 1999, p.1). One of

three more ecogardens planned by the Waste Board, the project has been specifically funded to educate the public about reducing their green waste and the students about science and the environment. Other benefits include the use of the garden by students for study and relaxation and the longer term involvement of the local community.

### **Waterloo Estate Community Gardens**

The largest network of community gardens in Sydney are located in Raglan Street, Waterloo. Dwarfed by and located in front of large concrete housing commission flats, two of these gardens are passed by hundreds of residents every day. Waterloo is measured as one of Sydney's most disadvantaged suburbs. It has a high indigenous population and a high percentage of non English speaking migrants and refugees. These gardens have had prominent publicity and funding and form part of a five-year community building programme instigated by the University of NSW Social Work Department, involving the School of Architecture, the Housing Department and South Sydney Council. They have been described by Adele Horin in the Sydney Morning Herald (1999) as "Garden grows the spirit of Waterloo."

The Estate gardens look organised and well resourced. They have high fences, raised allotment garden beds and communal composting bins. The inspiration for these open gardens was an established community garden in the church grounds up the street. Referred to as 'garden shelter', Waterloo Community

Garden is a neat, walled, irrigated combined individual and communal garden. There is a central shed, bougainvillea vines and a large mound of stable sweepings outside the locked gate. This is a sanctuary that obviously resonated with local residents when consulted by the Department of Housing about the use of the open space which surrounds the tower blocks.

Rhonda Hunt (2000) describes the 'participation' process for the estate gardens. Cook Community Garden was the first garden. "It was designed by landscape architects, supposedly in conjunction with the local residents who wanted it to happen. The local residents weren't particularly happy with the design process. They thought their needs weren't really taken into consideration" (p.2). She goes on to nominate 4 lessons from this experience. Two of the lessons recognise the necessity for translated information and pictorial signs to overcome language and cultural barriers experienced by the multi-cultural gardeners. Another was to set up a garden committee to deal with management and conflict issues. And lastly the need to work and develop a relationship with the institutions and the key people from council and Department of Housing to the community worker and landscape, social work and design students from University of NSW.

### **Cook Estate Flower Garden**

Faye is widely and well known as the 'garden lady'. She is a diminutive lady well into her 'third age'. Over the last 6 years, Faye has created a series of beautiful gardens along the front and entrance to the block of flats. Faye receives no

funding, limited Department and Council support and doesn't use organic techniques. Living on the 13<sup>th</sup> floor, Faye has greened and transformed the front of Cook Estate with her own money and labour. It was evident that Faye is respected and greeted by many of her peers. A Spanish man whose wife is sick approached her for advice on the plant she inspected in their flat last week. She chatted and offered assistance to a man having difficulty with his leg. She told me how the "The Russians love to come down and sit in the garden of an evening....even the drug addicts love the garden.'

Despite her contempt for the well resourced community gardens, apathetic local bureaucrats and plain talking on the daily vandalism that destroys her work, Faye's gardening appears to make a difference. Faye is a community leader, whose love for flower gardening and people has created an environment and symbol every bit as powerful as the community gardens. Faye is quite up front about her non participation, 'psychologically empowering' model of community gardening. Encouraged to form a management committee by the Department when she first started, this didn't work because she prefers to work by herself. Faye says she has the knowledge and 'gardens from the soul'.

Faye's variety of community development places an importance on clean streets and a clean perimeter to the Cook Community Garden. Her view is that the community garden is underutilised, inefficient and divided. Her view is only that. But it is interesting to compare that view with Adele Horin's view of cultural

diversity and community spirit. Without knowing it Faye mentioned a nice young woman by name who she said was driven away from the community garden for watering somebody else's plot. This same woman was quoted 12 months before in the Sydney Morning Herald as saying "we teach other". Still in its early years of development it is possible the reported lack of resident participation at the planning phase of the Waterloo Estate Community Gardens could still be affecting the trust building today? These differing views and continuum of experiences offer an insight into what influences a community gardens effectiveness.

## Chapter 6- The Outcome

To summarise, community gardens are effective because once they are established they are normally left in place so that individuals, groups and communities can maintain some control over the health determinants that effect their lives. The social and cultural relevance of a community garden cannot be overlooked when this setting can meet a range of self-expressed hopes, aspirations and concerns of the local population. "Observation and informal discussion with participants discloses that the relevance of community gardening (in Sydney) to their lives has as much to do with social considerations as with food production"(Grayson 2000, p.2).

So how do disadvantaged communities in particular identify the need for a community garden as opposed to another health promotion project? Consistent with the emancipatory aims and process of community gardening, identifying the four dimensions of community needs (normative, expressed, comparative and felt) should be part of the intervention process and start of participation. "In this way the skills involved in the needs assessment cover not only the data collection, analysis, and interpretation but also the community consultation, communication skills and consensus building skills" (Hawe, Degeling & Hall 1990, p.210).

Looking beyond 'observation' and 'informal discussion', the Baltimore based Community Resources (1999) organisation has developed both a new 'Urban



Inventory' Model for use in American urban cities and 'Human Environment Inventory'. These inventories "will help disadvantaged communities address environmental justice issues by giving them access, ownership and control over the environmental and social information that describes their communities" ( p.1). These step by step approaches could be developed and adapted for Australian urban environments and gardeners.

Particularly relevant for the establishment of community gardens these handbooks include steps like : *bring together you community team; define your community; list your community goals; map your community; photograph your community; observe/interview in your community and chart the Community's resources, structure, history and flows* (p.2) The Community Resources argues "While it is becoming increasingly common for decision makers to include minority and disadvantaged residents in the planning efforts through open meeting and presentations, inner-city residents are rarely, if ever, involved in choosing, collecting and analyzing the information about their communities upon which decisions are ultimately based" (p.1).

### **Community Leadership**

A less tangible dimension of the effectiveness of community gardens is the quality and force of a communities natural and promoted leaders. It is unlikely that the renewal at Claymore would have been achieved without the physical presence, respect and faith of Brian Murnane and the Tongan elders. The

Russians at Cook Estate would not be sitting down on a bus seat looking at the garden unless the informal gardener hadn't 'relocated' the seat with help from a can of WD 40 and a shifting spanner. Allan Coman (Principal, Stella Maris High School) had a vision for his students and the local community which was outside the normal education paradigms.

Mark Latham (1999) calls these people "social entrepreneurs" who "inspire people to take risks, who find clever ways of using abandoned assets, who give others the confidence to develop their skills and potential" (p.9). He argues that "At any time these projects would have been killed off by the imposition of hierarchies and patron/client relationships. For the social entrepreneurs, real power came from giving power away" (p.9). Often these creative leaders will not exist in disadvantaged communities or even within the Community health teams that tap into strategies like community gardens. These individual and group leaders need to be developed through a process of shared empowerment, dialogue, critical reflection and social action.

### **Building Trust**

To strengthen community action particularly where no natural leaders exist it is necessary to build a base of trust and co-operation. The literature on 'social capital' indicate ...." That societies that provide social support for their citizens are likely to be healthy ones" (Baum 1998, p.95). The relationship between gardeners and their relationship with the community enablers is vitally important.

Often the first steps of a community garden process will set a precedent of trust or mistrust. Forming trust or social capital in communities where it doesn't naturally exist is a learnt experience. This learning will often follow a practical or symbolic trust-building episode. Latham (1999, p.9) argues when the scale of a group or organisation is small, people feel they are making a difference and more likely to reciprocate these efforts. "It encourages people to take and manage risks in the realisation of their shared interests" (p.10).

This Strengthening Community Action and Developing Personal Skills (Ottawa Charter, 1986) involved in building trust may be complimented by Grayson & Campbell's (2000) second recommendation on the future of Sydney's community gardens. State and local government funded community garden liaison officers to promote and facilitate the development and use of community gardens as have the waste minimisation and bush regeneration officers (p.10-11). Even with the trust of local people, community gardens are unlikely to work without a comprehensive approach to health promotion that tackles the structural dimension of community resources. Community gardens don't exist without complimentary programmes and collaboration across housing, local government and primary health care services.

### **Community and Intersectoral Collaboration**

The idea and strategy of 'collaboration' is an important one and consistent with The Declaration of Alma Ata (1978) and 'Primary Health Care' planning. Many

causes of health and ill-health are interlinked at the environmental and operational level of a community. Macdonald (1992) states that "Planning for PHC involves.....the management of regular contact both with community structures and other sectors which contribute to health".(p.117) In the case of community gardening this involves the following sectors: food, education, waste management, housing, non-government, private industry, government and communication. The Angel Street community garden in Newtown is a good example. In this garden there is collaboration between local residents, the neighbouring high school Newtown Performing Arts, Permaculture International, Australian City Farms and Community Gardens, the Department of Education, the NSW Mounted Police and Macro Wholefoods.

A collaborative approach to community gardens is vital for the sustainability, participation and equity of this 'multi-dimensional' health community development approach. The advantage of initiatives like community gardens is in the recognition of the limitations of medical and community health interventions to meet all of a communities broader health needs. Dena Warman (1999) in her essay on Ontario's community gardens points to the affiliations between local gardens and organisations such as food banks, housing co-operatives, churches, Universities and community outreach programmes. She reports that these community groups saw the common benefits, and consequently developed community gardens (p.22). This reciprocal process also provides individuals with

multiple opportunities to interact and network with other groups to build their power, competence and coping skills.

Grayson & Campbell (2000) recommend and argue for a model of collaboration and resource network in Sydney. They emphasise the use of community gardens for educational venues which recognise the important preventative link between health education and improved health status (particularly amongst school children). They mention the involvement of community colleges, TAFEs, Environment Centres, Steiner schools, aged and disabled groups and people from interstate and overseas in visiting local community and school gardens. This type of resource reorientation and co-ordination of community education promotes a positive image of health and mediates for a more effective, community controlled development system.

### **The Future of Sydney's Community Gardens**

**"With a decade of community garden development to call upon (in Sydney), advocates are working to lift the social and environmental profile of community gardening and to involve institutions more closely in their development"** (Grayson 2000, p.6).

How do community health workers and developers achieve this aim and what are the conditions that would ensure meaningful community relevance, participation and impact on local health status Grayson (2000) uses the example of a small community run, council owned community garden in Fremantle as an imaginative, collaborative and effective multi-use model. The garden offers:

“community food growing terraces; children’s playground; a grassed recreation space; a picnic shed; a bog garden of native wetland plants; a sand dune separating the garden from the footpath planted with locally indigenous species of dunal vegetation, including bush food; a stone, public artwork arch entrance decorated with ceramic tiles made by local school children and artwork by local Aborigines; the harvesting of rainwater from the roofs of neighbouring houses, its storage in an underground tank and its reticulation as irrigation for the community food garden and the lawn area” (p.10).

This garden is a supportive, inclusive, holistic and enjoyable environment that reflects the communities diversity and range of needs. Regardless of age and cultural background, whether recreation or environmentally oriented, active participant or therapeutic participant this multi-use garden meets the fundamental resources and conditions for positive health and wellbeing. Many of the approaches and impacts studied in this paper can be argued. The role of multi-function gardens for the future impact and sustainability of community gardens is strongly indicated. Gardens like this Fremantle co-operative are so practical because they address multiple health factors at the same time and consequently attract a large number of stakeholders who in turn are “ people with a direct interest in the wellbeing of the garden” (Grayson & Campbell 2000, p.10).

## Chapter 7: Conclusion

**“Understanding all your resources can seriously improve your health”**

**(Bell 1992, p.45).**

Many different voices of community gardeners are used here to identify those resources and help conclude this study:

- *“There is such a breakdown in community spirit....so many people are isolated and alone. I think this place helps to get us back in touch with the earth and with each other”.*
- *“The kids love being here....where else in the inner city could you find some tadpoles ?”*
- *“I don’t have space to garden in my flat”*
- *“Three quarters of my vegetable needs come from here now”*
- *“Implementing the Health Promoting Schools concept has not only provided for and benefited our school, it’s place a stepping stone for the future”(Year 12 student)*
- *“We all wanted to move out of the city and find some greenery. Then we thought, ‘Why not bring the greenery to the city ?”*
- *“.....prisoners are the best gardeners”*
- *“There’s a community here, and there ain’t much of that anywhere in Sydney” “SI HORTUM CUM BIBLIOTHECA HABEBIS NIHIL DEERIT”*

- *“If (one day) you have a garden with a library you won’t be missing anything” (Jesuit inscription on the Fountain of the Stallatite, Palazzo del Collegio Romano)*

Community gardens are one of many resources and approaches available to community members and health workers to promote the wider health and wellbeing of individuals and local communities. They are many different things to many different people. They have the capacity to provide social, environmental and economic benefits to community development (in that order of priority)

According to the different social, cultural, environmental and economic needs of a community, these gardens provide a sustainable model for producing healthy food and social capital. The more successful gardens appear to mirror the diversity and the potential multi-usage of the garden by different groups in the community. Less successful are those gardens that are not physically and aesthetically part of the local neighbourhood or lack inclusion in their philosophy or participation process.

Unlike more targeted or behavioural health promotion strategies, community gardening can succeed on many different levels or have a very limited impact. The study indicates that contrary to general beliefs, gardening is not politically neutral. It is apparent that one of the great benefits and disadvantages of gardening is the politics of participation and collaboration. Decisions about how gardens are planned and what is grown must be made by the gardeners and



community, with the support and facilitation of local government and community professionals and interests.

Once community gardens have been developed they require fewer resources to run and fewer skills and rules for all the citizens to fully participate. When located in the middle of a community the participation, cohesion and care taken for the garden can change the 'whole' environment. This social modelling of positive or negative environmental resource management can make or break the impact of community gardens. Some community members become involved for community action concerns; the practice of traditional food gardening attracts others; many middle class people are interested in the environment and sustainable cities, while other people may not be able to define all the prerequisites of health or benefits that community gardens bring to their lives. Community gardens naturally attract more mature people which is not matched by their younger citizens, despite the excellent school based community gardens and 'healthy community' programmes.

Community gardens offer the greatest health status gains and opportunities to communities with poor social and physical environments. Borrowing from the Ottawa Charter of Health Promotion and Agenda 21 principles the process of promoting health through community gardening should be sustainable and guided by access and equity principles. Significantly many communities are hard places to build trust and participation. Community gardens reflect the power

structures, level of resources and trust/distrust already operating within the community. The social charm and challenge of community gardening appears to be a more natural and appealing way of building health than the formal journey through community health centres and contact with medical professionals.

The future of community gardens in Sydney is at a crossroads. The examples discussed, highlight the factors affecting the different forms of community gardens in the inner city and suburbs. The security of tenure, level and quality of participation, the leadership and training provided and the appropriate integration of the provision and planning of community gardens into local government policy will determine the sustainability, effectiveness, the myths and varied realities of Sydney's community gardens in the future.

## References

American Community Gardening Association (1995) **What are the Benefits of Community Gardening**. Retrieved July 28 ,2000 from the World Wide Web: <http://www.bright.net/~gardens/bebefits.html>. 8 pages.

Anderson L & Wanders F (1998) **Inner Southern Food Co-op Tenth National Health Promotion Conference**, 22-25 February 1998,Adelaide. Retrieved August 18, 2000 from the World Wide Web: <http://www.ecu.edu.au/chs/nh/clearinghouse/hp/abstracts.htm>. 2 pages.

Arnstein S (1971) **Eight rings on the ladder of Citizen Participation. Citizen Participation: Effecting Community change**, E Cahn & B A Passett (Eds), London : Praeger. Pp. 216-225.

Australia's Open Garden Scheme (2000) **Community Grants. ABC** Retrieved September 10, 2000 from the World Wide Webb: <http://opengarden.abc.net.au/grants.htm>. 2 pages.

Babbie E (1998) **The Practice of Social Research** (8<sup>th</sup> ed.) Belmont, CA : Wadsworth. pp..283-309.

Baum F (1998) **The New Public Health: An Australian Perspective**, Melbourne : Oxford University Press. pp. 320-355.

Bell G (1992) **The Permaculture Way: Practical Steps to Create a Self-Sustaining World**, London: Harper Collins. pp.25-115.

Chipper C (1996) **City Farm in Perth, Australia Urban Agricultural Notes: City Farmer**, Retrieved August 2, 2000 from the World Wide Web: <http://cityfarmer.org/perth19.html>. 2 pages.

**City & County of San Francisco (1997) Sustainability Plan for San Francisco - October 1996**. San Francisco Citysplan : Retrieved September 29, 2000 from the World Wide Web: <http://www.ci.sf.ca.us/environment/sustain/health.htm>. 18 pages.

Community Gardens Network (2000) **Community gardens and related sites - NSW**. Pacific Edge permaculture & media : Retrieved September 10, 2000 from the World Wide Web: [http://www.magna.com.au/~pacedge/garden/listings/nsw\\_listing.html](http://www.magna.com.au/~pacedge/garden/listings/nsw_listing.html). 8 pages.

Community Gardens Network (1998) **Community Gardens in South Sydney** Sydney: South Sydney Council Publication. pp 1-13.

Community Gardens Network (2000) **What's on in community gardens in NSW** Pacific Edge permaculture & media: Retrieved August 29,2000 from the World Wide Web: [http://www.magna.com.au/~pacedge/garden/whats\\_on.html](http://www.magna.com.au/~pacedge/garden/whats_on.html), 3 pages.

Community Resources (1996) **Community Greening for Urban Revitalisation** Greenstein Fellowship Presentation To The Associated, Baltimore. Retrieved 20July, 2000 from the World Wide Web: <http://www.communityresources.org/pprcgur.htm>, 6 pages.

Community Resources(1998) Program Monitoring and Evaluation Retrieved August 15, 2000 from the World Wide Web: <http://www.communityresources.org/mande.htm>, 2 pages.

Community Resources (1998) **Knowing Your Community, Showing Your Community**. Retrieved July25, 2000 from the World Wide Web: <http://www.communityresources.org/pua.htm>, 2 pages.

Eastern Suburbs Community Garden Association Inc. (April 6,1998) **Resources to set up and maintain Community Garden in the Waverly Municipality**. pp.1-10.

Ecosteps (1999) Local Agenda 21. Retrieved October 4, 2000 from the World Wide Web: <http://www.ecosteps.com.au/sustainabilitytree/localagenda21.htm>, 4 pages.

Glover G & Tennant S (1999) **A Social Health Atlas of Australia**. Volume 2 : New South Wales. Public Health Information Development Unit, University of Adelaide.

Gavrilov S (1997) **Rooftop Gardening in St Petersburg, Russia** **Urban Agriculture Notes: City Farmer**. Retrieved September1, 2000 from the WWW: <http://cityfarmer.org/russiata.html>, 3 pages.

Grayson R (2000) **Sydney's first- Glovers Community Garden**. Community Gardens Network : Pacific edge permaculture & media. Retrieved August 26, 2000 from the World Wide Web : <http://www.magna.com.au/~pacedge/garden/glovers.html>, 4 pages.

Grayson R (2000) **Claymore - Gardens and Community Renewal**. Community Gardens Network : Pacific Edge permaculture & media. Retrieved October 3, 2000 from the World Wide Web: <http://www.magna.com.au/~pacedge/garden/claymore.html>,. 2 pages.

Grayson R (2000) **Growing in the City, Community Gardens Network.**  
Retrieved August 10,2000 from the World Wide Web:  
<http://www.magna.au/~pacedge/garden/sydney.html>, 4pages.

Grayson R (1999) **Stella Maris - Garden in a school community Gardens Network** : Pacific Edge permaculture & media. Retrieved October 4, 2000 from the World Wide Web: <http://www.magna.com.au/~pacedge/garden/stella.html>, 2 pages.

Grayson R (2000) **Looking Back Community Gardens Network**. Pacific Edge permaculture & media. Retrieved August 2, 2000 from the World wide Web: [http://www.magna.com.au/~pacedge/garden/looking\\_back.html](http://www.magna.com.au/~pacedge/garden/looking_back.html), 2 pages.

Grayson R & Campbell F (2000) **Evaluating Community Gardens Community Gardens Network** : Pacific Edge permaculture & media, Retrieved September 27, 2000 from the World Wide Web: [http://www.magna.com.au/~pacedge/garden/evaluation/e\\_full.html](http://www.magna.com.au/~pacedge/garden/evaluation/e_full.html), 13 pages.

Grayson R & Hunt R (2000) **Making a start - Waterloo Estate Community Gardens**: Community Gardens Network : Pacific Edge permaculture & media. Retrieved August 15, 2000 from the World Wide Web: <http://www.com.au/~pacedge/garden/estate.html>, 3 pages.

Hancock T & Perkins F (1985) **The Mandela of Health: A conceptual model and teaching tool**, Health Education. Summer.pp.265-272.

Hawe P Degeling D Hall J (1990) **Evaluating Health Promotion : A Health Worker's Guide**. Sydney: Mac Lennan & Petty. pp.16-40.

Horin Adele (1999, October 21) Garden grows the spirit of Waterloo. **Sydney Morning Herald**. Retrieved September 27, 2000 from the World Wide Web: <http://www.smh.com.au/news/9910/21/national/national12.html>, 3 pages.

Hunt R (1999) **Community Gardens and Local Government Community Gardens Network**. Retrieved August 5, 2000 from the World Wide Web: [http://www.magna.com.au/~pacedge/garden/councils\\_role.html](http://www.magna.com.au/~pacedge/garden/councils_role.html), 4pages.

Kellehear A (1993) The Unobtrusive Researcher: A Guide to Methods. Sydney: Allen & Unwin. In Rice P & Ezzy D (Eds) **Qualitative Research Methods: A Health Focus**. Melbourne: Oxford University Press. pp. 95-116.

Khavarpour, F (1999). **Programme Planning and Evaluation**, Sydney: Yooroang Garang: School of Indigenous Health Studies.

Kickbusch I (1997) Think Health: what makes the difference? **Health Promotion International**, 12: (4) pp.265-272.

Knight J (1998) Models Of Health. In Germov J (ed) **Second Opinion: An Introduction to Health Sociology**. Melbourne: Oxford University Press. pp.136-150.

Latham M (1999) **The Welfare State and The Third Way** : Brisbane Institute Seminar, "**From Cape York to Campbelltown: Rebuilding Communities**" 26 July, 1999. Retrieved September 19,2000 from the World Wide Web: <http://thirdwa.../THE%20WELFARE%20STATE%AND%20THE%20THIRD%20WAY.html>, 14 pages.

Levenston M (1996) **Gardening With Disabled Individuals**, Urban Agricultural Notes: City Farmer. Retrieved September 26, 2000 from the World Wide Web: <http://cityfarmer.org/disablgard67.html>, 2 pages.

Lupton D (1999) Content Analysis In Minichiello V Sullivan G Greenwood K & Axford R (Eds) **Handbook for Research Methods in Health Sciences**. Sydney: Addison-Wesley, pp. 450-461.

Malakoff D (1998) **What Good is Community Greening**, American Community Gardening Association. Retrieved July 15, 2000 from the World Wide Web: <http://communitygarden.org/pubs/whatgood.html>, 8 pages.

Macdonald J (1992) **Primary Health Care** London : Earthscan Publications. pp. 109-123.

Mollison B & Holmgren D (1981) **Permaculture One: a Perennial Agriculture for Human Settlements**. Winters, California: International Tree Crops Institute. pp. 87-93.

O'Connell M (2000) **Art In The Community: Pacific Edge permaculture & media**. Retrieved September 12, 2000 from the World Wide Web: <http://www.magna.com.au/~pacedge/garden/art.html>, 3 pages.

O'Connor M L & Parker E (1995) **Health: Principles and Practice in the Australian Context**, St Leonards, Sydney: Allen & Unwin. pp.174-189.

Ohio State University Extensions Urban Gardening Program (2000) **Seeds of Hope, Harvest of Pride!** Retrieved August 15, 2000 from the World Wide Web: <http://www.bright.net/~gardens/whyis.html>, 3 pages.

Rauber P (1997 May/June) Cultivating Our Cities. **Sierra Magazine**. Retrieved July 25, 2000 from the World Wide Web: Available <http://www.britannica.com/bcom/magazine/article/0,5744,13460,00.html>, 3 pages.

Ready L (1999) Intensive Tenancy Management Demonstration Project : A Pilot Project of the NSW Department of Housing. **National Housing Conference 1999**. Retrieved September 22, 2000 from the World Wide Web: [http://203.32.156.170/Conference99/paper\\_lynneready.htm](http://203.32.156.170/Conference99/paper_lynneready.htm), 6 pages.

Smit J (1996) **Urban Agriculture: Food, Jobs and Sustainable Cities**. Volume 1. United Nations Development Programme Publication Series for Habitat II. pp.1-250.

Smith B & Smitasiri S (1994) **A Framework for nutrition education programmes**, Retrieved August 29,2000 from the World Wide Web: <http://www.faoorg/docrep/w3733e/w3733e03.htm>, 9 pages.

Waas A (1994) **Promoting Health: The Primary Health Care Approach**. Sydney : Harcourt Saunders. pp. 83-172.

Warman D S (1999) **Community Gardens: A Tool for Community Building**, Retrieved July 22, 2000 from the World Wide Web: <http://www.cityfarmer.org/waterlooCG.html>, pp 1-52.

Whyte D B (1988) **Horticultural Therapy: New Options for People With Disabilities**, Urban Agricultural Notes: City Farmer. Retrieved September 26,2000 from the World Wide Web: <http://cityfarmer.org/Htbruce69.html>, 4 pages.

World Health Organisation (1986) **Ottawa Charter for Health Promotion** Adopted at the International Conference on Health Promotion, November 17-21. Ottawa, Ontario, Canada.