Public policy and physical activity: A South Australian study

Colin James MacDougall

BA (Hons) MA

Thesis submitted in fulfilment of the requirements of the degree of Doctor of Philosophy

Department of Public Health

Adelaide University

October 2000

Table of contents

Table of contents i

List of tables x

List of Figures xii

Abstract xiii

Acknowledgments xv

Chapter 1 Setting the scene from the author's perspective 1

Observations about physical activity 1

The problem to be researched 3

Structure of the thesis 5

Chapter 2 Public health and physical activity 7

History and the Ottawa Charter 7

Definitions of the new public health 8

The rise of the lifestyle approach 9

The New Public Health's critique of the lifestyle approach 12

Downplaying the importance of social factors 13

Overemphasis on the power of providing information 17

Lack of evidence for success 17

Lack of evidence for generalisibility 18

The rise of the new public health 19

The influences from the radical social climate of the 1970s 19

Concern with inequalities in health 20

Healthy settings 21

Critical appraisal of the new public health 24

The old versus new debate 24

Health as a means or end and healthism 26

Commodification of health 26

The web model 27

A macro-micro dichotomy? 28

Three approaches to promoting physical activity 29

Definitions of health and physical activity in each approach 30

Medical approach 30

Behavioural approach 30

Socio-environmental approach 33

Conclusion 36

Chapter 3 Public policy 37

Policy and values 37

Healthy Public policy 40

Approaches to policy formulation and decision making 41

Rational-deductive 43

Incremental 43

Mixed scanning 43

Agenda setting and management 44

Key players in agenda setting 46

Key techniques in agenda setting 48

Agenda-Building Theory 49

Outside initiative 50

Inside Initiative 51

Mobilisation 51

Policy research 52

Types of research 52

Analysis for policy 53

Analysis for policy at the local level 53

Conclusion 54

Chapter 4 Methodology and methods 55

Development of the methodology 55

My research context 56

The importance of starting with the research question 57

Research methods as techniques and procedures 57

Research methodology as a plan of action 58

The importance of underlying beliefs and understandings 59

Developing a research methodology 64

The research process 64
More about the research question 67
Statement of research methodology 70
Study 1 An analytical epidemiological investigation of the results of a cross sectional community health survey in Adelaide, South Australia 71
The survey and the sampling method 72
Sample 73
Development of indices 74
Physical activity 75
Health status 77
Social connections 78
Recreation facilities 78
Studies 2 and 3: Focus groups and field studies exploring people's experiences and theories of physical activity in their settings 78
Sampling procedure 80
Prepare 84
Contact 84
Follow-up 85
Description of the sample 85
Data collection 88
Data analysis 90
Familiarisation 90
Identifying a thematic framework 91
Indexing 93
Charting 93
Mapping and interpretation 94
Comments on ordinary theory and Studies 2 and 3 95
Study 4: Case study and document analysis of policies and organisations concerned with physical activity in South Australia 96
Document analysis 96
Case Studies 96
Overview of the case study project 97
Field procedures 98
Case study questions 98

Guidelines for preparing the report 99

Chapter 5 Physical activity, values, policy and the role of the state: Changing discourses in South Australian history 101

Colonialism: Transplanting Britannia through sport 102

The Colonial era in public health: white settlement to 1890s 102
Transplanting Britannia 103
Class and race 104
Commentary on policy 105

Nation building: Militarism, education and national fitness 105

The Nation Building era in public health: 1890-1940s 105
Militarism 106
The rise of the education sector 107
National fitness and the emergence of the health sector 108
Commentary on policy 109

Affluence, medicine and infrastructure: exercise and risk factors 110

The Affluence, Medicine and Infrastructure era in public health: 1950s to early 1970s 110
The emerging link between exercise and medicine 110
The creation of the National Heart Foundation in Australia: Prevention of heart disease gains a place on the policy agenda 111

Lifestyle: physical activity programs and the role of government 114

The lifestyle era in public health: late 1960s to mid 1980s 114
Institute for Fitness, Research and Training (IFRT) 114
Health Development Foundation (HDF) and subsequently Children's Health Development Foundation (CHDF) 116
The National Heart Foundation of Australia (SA Division) 119
Commentary on policy 120
1969 - 1986: Incremental changes involving collaboration between supportive government sectors 120
1986 - 1994: Modular change towards one dominant government sector and the private sector 123
Public managers as street level professionals 125

New public health meets new public management: Simultaneous reappraisal of physical activity and the role of government 128

The New Public Health era: 1980s onwards 128
Institute for Fitness, Research and Training (IFRT) 128

Health Development Foundation (HDF) and subsequently Children's Health Development Foundation (CHDF) 130
National Heart Foundation of Australia (SA Division) 132
Policy commentary 1994 - 1999 134
Public sector managers as contractors in the marketplace 134
Conclusions 137
Chapter 6 Associations between physical activity, demographic factors, health status, social connections and community facilities... 139
Bivariate analysis 139
Multivariate analysis 142
Discussion of results 144
Demographic factors that are compared with other epidemiological studies 144
Age 144
Income and education 145
Gender differences 145
Health and settings factors that add to models from other epidemiological studies 146
General health and mobility 146
Social connections 146
Recreation facilities 146
Carers 147
Implications for Studies 2 and 3: Adding complex factors to an epidemiological model 148
Conclusion 150
Chapter 7 Ordinary theorising 151
Expert and ordinary theory 151
Ordinary theorising and health 154
The definition and dimensions of ordinary theory used in this thesis 156
Ordinary theory and the new public health 158
A focus on participation and public health 158
Examples of community participation in Australian history 158
Participation and models of health 159
Participation and health policy 161
Participation and types of knowledge 162
Differences in the ways communities and bureaucrats theorise 163

Commentary on participation, knowledge and policy 166

Results of ordinary theorising about health and physical activity.....167

More than the absence of disease 167
Stress 168
Environment 168
Gender 170
Social connections 172
Health is a means for physical activity 173
Lifecourse, reservoirs and sensible limits 174
Comparison with research on retirement 175
Implications for health promotion and policy 176

Results of ordinary theorising and acute conditions: bring on the experts! 178

Rehabilitation 178
Benefits 181
Weight 181
The physical and the mental self 181
The social self 181
Through the lifecourse 182
Ordinary theory and health education: Image, meaning and implementation 182
Implications for health promotion and policy 183

Results about negotiating expert and ordinary theorising 185

I know it's supposed to be good for me ... but it isn't always and that's not why I do it 185
Moderating expert advice 188
Individual versus population risk 188
Dealing with unhelpful expert advice and interventions 189
Expert fatalism 190
Implications for health promotion and policy 191
Diversity and conflict in ordinary theory 191
Developing personal skills when ordinary and expert theories differ 192

Results about ordinary theorising and chronic conditions: listening to your body and doing it yourself.....196

Doing normal things and making trade-offs 196
Taking control and really listening to the body 197
Normal stories and passports to life 199
Implications for health promotion and policy 199

Implications for approaches to promoting physical activity 202

Different ways for public health to draw on psychology: from behavioural to lifestyle .. 202

Whose theory in a socio-environmental approach? 205

Chapter 8 Emerging analysis for healthy public policy about physical activity and settings 208

Step 1: Define themes that describe a setting's support for physical activity 210

Locating in space 210

Moving through space 213

Relating to people in space 217

Step 2: Explain current difficulties with physical activity 220

Step 3: Explore options for supportive environments for physical activity 223

Step 4: Identify policy actor networks and agendas 225

Case study A: Convenience and aesthetics: locating in local spaces .. 225

Explanation of current difficulties with physical activity 225

Developing options for supportive settings 228

Case study B: Safe routes for children moving through local space ... 232

Explanation of current difficulties with physical activity 232

Options for supportive settings 235

Case study C: Values and friendliness: relating in space 240

Description and explanation of current patterns of physical activity 240

Options for supportive settings 242

Case study D: Unsafe streets: moving, relating and social capital 244

Explanation of current difficulties with physical activity 244

Safety 244

Changes over time 245

Options for supportive settings 247

Case study E Netball: relating in safety while moving to sporting locations 249

Explanation of current difficulties with physical activity 249

Options for supportive settings 252

Case study F: Pools, buses and halls: using and moving between specialised locations 254

Explanation of current difficulties with physical activity 254

Specially designed facilities: availability and cost 254

Public Transport 256
Options for supportive settings 260
An analysis for healthy public policy 260
Local-incremental decisions 265
Local policy actor networks 267
Crafting the policy proposals and advocating for change at the local level 268
Limits of local-incremental policy processes 269
National-fundamental decisions 271
National policy actor networks 273
Crafting the policy proposals and advocating for change at the national level 273
Limits of national-fundamental policy processes 274
Mixed scanning 274
Potential problems for a mixed scanning approach 275
Hot topics and open windows of opportunity 275
Clashes between expert and ordinary theory 278
Organisational structures and relationships 278
Complementary discourses on place and space 280
A place based focus 280
Transport policy and social space 281
Urban planning and space 290
Criminology and space 292
Concluding comments on place and space 293
Chapter 9 Reflections, conclusions and implications 295
Implications for models of physical activity promotion 296
Focus of intervention 298
Main strategies used in each approach 298
Success criteria used in each approach 299
Reflections on research 299
The questions in the quantitative study 299
Designing surveys and selecting factors in quantitative methods 300
Assessing qualitative research 301
Credibility 301
Triangulation 301
Transferability 301
Dependability/reliability and confirmability 302
Reflections on seeking and analysing ordinary theory 302

Designing complementary studies 303
Reflections on policy action: pragmatic alliances or grand theory? ...304
Pragmatic alliances 306
Grand theory 307
And in the end... 309
References 310

List of tables

Table 2.1 Associations of determinants with physical activity in adults (Sallis & Owen, 1999 p. 115) 14
Table 2.2 Lessons from the first generations of heart health programs. 23
Table 2.3 Approaches to promoting physical activity: Definitions of health and physical activity . 30
Table 3.2 Agenda management techniques utilised by institutional policy keepers (summarised from Cobb & Elder 1983; Nordlinger 1981) 48
Table 3.3 Models of agenda building adapted from Cobb & Ray (1983) 50
Table 4.1 Summary of methodology 70
(Study 1) 70
Table 4.2 Age group and gender distribution of respondents to the Marion, Brighton and Glenelg Community Needs Assessment Survey (1987) 73
Table 4.3: Selected comparisons between factors associated with physical inactivity (compared with moderate activity) and factors associated with moderate activity (compared with vigorous activity) 76
Table 4.4 A strategy for recruiting participants from existing groups in focus groups and field studies 82
Table 4.5: Participants in focus groups, interviews and field visits for Study 2 86
Table 4.6: Participants in focus groups and field visits for Study 3 87
Table 4.7: Guide used by facilitators in focus groups and interviews for Study 2. 88
Table 4.8: Guide used by facilitators in focus groups and interviews for Study 3. 89
Table 5.1 Changing discourses in the history of physical activity and health 136
Table 6.1 Associations between gender, income, education, age group and physical inactivity in the Marion, Brighton and Glenelg Community Needs Assessment Survey .. 140
Table 6.2 Associations between gender, sub-scales on the Nottingham Health Profile and low physical activity in the Marion, Brighton and Glenelg Community Needs Assessment Survey 141
Table 6.3 Associations between general health, gender, social connections, satisfaction with recreation facilities, status as a carer and low physical activity in the Marion, Brighton and Glenelg Community Needs Assessment Survey 142
Table 6.4 Predictors of low physical activity (compared with moderate activity) based on a logistic regression model with a forward stepwise addition of significant interactions with gender to the main effects model in the Marion, Brighton and Glenelg Community Needs Assessment Survey: Significant odds ratios only 143
Table 8.1 Summary from Study 3 about aspects of locating in space that made it easier to build moderate physical activity into the day 211

Table 8.2 Summary from Study 3 about aspects of locating in space that made it more difficult to build moderate physical activity into the day 212
Table 8.3 Summary from Study 3 about aspects of moving through space that made it easier to build moderate physical activity into the day 214
Table 8.4 Summary from Study 3 about aspects of moving through space that made it more difficult to build moderate physical activity into the day 215
Table 8.5 Summary from Study 3 about aspects of relating to people in space that made it easier to build moderate physical activity into the day 219
Table 8.6 Summary from Study 3 about aspects of relating to people in space that made it more difficult to build moderate physical activity into the day 220
Table 8.7 The Delhi declaration on the safety of the 'vulnerable road user' 283
Table 8.8 The Australian Pedestrian Charter 284
Table 9.1 Three approaches to promoting physical activity 297

List of Figures

Figure 3.1 The iterative process of policy development 42
Figure 3.2 The scene and the players in the continuous process of policy development (Milio 1988 p.268) 47
Figure 4.1 The research process according to Fran Baum (1998) 60
Figure 4.2 The research process according to Michael Crotty (1998) 63
Figure 4.3 The research process in this thesis 66
Figure 8.1 Hypothetical analysis of current difficulties with physical activity 222
Figure 8.2 Hypothetical force-field analysis of supportive settings 224
Figure 8.3 Locating in local spaces 230
Figure 8.4 Children moving through local spaces 236
Figure 8.5 Values and friendliness of facilities 243
Figure 8.6 Unsafe streets: moving relating and social capital 248
Figure 8.7 Relating in safety while moving to sporting locations: communitarian option 251
Figure 8.8 Relating in safety while moving to sporting locations: transport led option 253
Figure 8.9 Ensuring safety while using and moving to specialised locations 259
Figure 8.10 Advocating for healthy public policy at the local level 266
Figure 8.11 Advocating for healthy public policy at the national level 272
Figure 8.12 Advocating for healthy public policy at local and national levels 276

Abstract

Over the last few decades, governments and interest groups in Australia have focussed on increasing the participation of the population in regular, moderate physical activity. Changes in thinking about the benefits, measurement and methods of promoting physical activity have led to debates about the most effective public policies. Options for public policies frequently reflect fundamental differences in values, paradigms and research methods. The literature review concludes that moves towards designing strategies for physical activity promotion from a new public health perspective are in their infancy.

The thesis asks three general questions in a South Australian context:

1. What are the physical activity gaps between social groups and how do these gaps relate to health and the other benefits of physical activity?
2. What are the constraints on choices and what needs to be done to make the choices of people to increase moderate physical activity easier? How do ordinary people theorise about constraints on choices?
3. What is the role of the social environment in relation to moderate physical activity choices and what needs to be done to ensure supportive social environments? How do ordinary people theorise about supportive social environments?

The methodology is consistent with the social constructionist paradigm and combines quantitative, qualitative, case study and document analysis methods.

The results show that physical activity frequently become the province of different sectors of society at different times. Recent case studies demonstrate that policies about how governments organise their services lead to more fundamental changes than specific health policies.

A quantitative study in Adelaide, South Australia, demonstrates associations between lower levels of physical activity and demographic factors, lower self reported health status, low social connections and low satisfaction levels with community facilities. Qualitative studies show how people use ordinary theories to speak about health and physical activity which either are consistent, or differ from, experts' theories. Qualitative analysis also explains links between levels of physical activity and setting or environmental characteristics involving where people live, how they move around and how they relate to each other. Changing these characteristics involves collaboration between the public health sector and others such as urban planning, transport, criminology, education, recreation and sport. The thesis develops a mixed scanning approach that distinguishes between policy processes at the local and the national levels to propose how to place polices designed to increase moderate physical activity higher on the relevant policy agendas.

The thesis contains no material which has been accepted for the award of any other degree or diploma in any university and, to the best of my knowledge and belief, the thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

I consent to this copy of my thesis, when deposited in the University Library, being available for photocopying and loan.

Date 30 March 2001

Acknowledgments

My parents, Jim and Alicia MacDougall always encouraged my interest and endeavours in education and physical activity. Jim was a swimming champion, played representative soccer, rode bikes and climbed mountains. Even when his health was failing he continued to be active, and I am sure that extended both the years and the quality of his life. Alicia continues to walk, swim and socialise with the energy of a woman half her age. I thank both for their unwavering love and support for me and my education and wish that they had the same opportunities in their early lives as I have had.

I thank my early supervisor, Neville Owen for introducing me to the physical activity literature and networks and for keeping in touch throughout my research.

I thank my current supervisor, Judith Raftery, for being so thorough, supportive, timely and rigorous in her supervision. She has been a model supervisor and has always been appropriately critical and professional in her dealings with me as a student who is also a fellow academic at another university.

I thank the following people for agreeing to participate in formal interviews and to provide documents and references for the case studies in Chapter Five: Tony Sedgwick from Institute of Fitness, Research and Training and Peter Woolley from Children's Health and Development Foundation for interviews in 1994 and 1999; Neville Owen from the University of Adelaide for an interview in 1994; Barbara Smith for an interview about CHDF in 1994 and Melanie Smith from CHDF for an interview in 1999; Cheryl Wright from National Heart Foundation (SA Branch) for an interview in 1999. I also thank Jeff Emmell from the Australian Council for Health, Physical Education and Recreation for an interview in 1999 and Denis Lane, formerly from the Physical Education Branch of the Education Department (and a keen historian) for an interview and the use of his personal library in May 1999.

For the data in Chapter Six I thank the South Australian Community Health Research Unit for permission to use the data from the Marion, Brighton and Glenelg community health needs assessment and in particular Fran Baum, Richard Cooke and Elizabeth Kalucy for discussions about the survey and the data. My analysis of the data was partially funded by a grant from the University Research Board at the Flinders University of South Australia.

Chapter Seven reports the results from focus groups and interviews that were partially funded by grants from the Health Enhancement Research Grants program from the Department of Human Services and the Commonwealth Department of Community Services and Health. I thank colleagues from the Department of Public Health at Flinders University, in particular Christine Putland, and Eileen Willis from the School of Nursing at Flinders and Andrea Wass from the University of New England for their comments on my development of ordinary theory.

Chapter Eight also reports the results from focus groups and interviews that were partially funded by grants from the Health Enhancement Research Grants program from the Department of Human Services and the Commonwealth Department of Community Services and Health. The latter grant was led by Cheryl Wright from the National Heart Foundation (SA Branch) which also involved Rick Atkinson, an urban planner from University of South Australia and various staff from the local government area of Marion. Tonia Mezzini was the research assistant for both the grants and was invaluable during the stages of reviewing literature, planning the study, recruiting participants and organising focus groups and interviews. Bridget Booth took over when Tonia left to study medicine and brought her anthropology background and NUD.IST skills to bear on the data analysis. Bridget later provided invaluable assistance in formatting and preparing tables and figures.

This latter project has developed into the Supportive Environments for Physical Activity project. Since 1995 I have worked with this team and I am grateful for their commitment, ideas and support. This has been an excellent experience of the teamwork that characterises public health research, and I thank all involved. I have tried my best to acknowledge the team's contribution, while at the same time indicating the particular contribution or interpretation of that work which I have used in this thesis.

I thank Dr Lionel Orchard, from the School of Social Sciences at Flinders University for pointing me in the direction of the social science literature on policy.

I have the good fortune to work in a supportive and creative Department of Public Health at Flinders University. Many colleagues have been personally and professionally supportive throughout my doctoral candidature. I particularly thank my late colleague Michael Crotty for introducing me to the philosophy and rigour of qualitative research. Fran Baum has always been supportive and has contributed so much to my knowledge of public health and I thank her for being an excellent colleague and friend. I also thank Flinders University for two periods of study leave which were invaluable when I was conducting the research and analysing the data.

Finally, this project would not have been possible without the love and support of my partner Jenny and my daughter Georgia.

Chapter 1
Setting the scene from the author's perspective

I console myself with the thought that, in our statistically minded times, all this has probably been printed in books which one can consult if need arise. At present I am preoccupied with sense-impressions to which no book or picture can do justice. The truth is that, in putting my powers of observation to the test, I have found a new interest in life. How far will my scientific and general knowledge take me? Can I learn to look at things with clear, fresh eyes? How much can I take in at a single glance? Can the grooves of old mental habits be effaced? That is what I am trying to discover (Goethe, Letters from Italy, September 11 1786).

Observations about physical activity

I started the research for this thesis in South Australia in the early 1990s, and from then on was pleased to observe how, throughout the 1990s, many groups, agencies from state and federal governments and international bodies displayed increasing interest in the promotion of physical activity. In the early part of the 1990s, much of this research involved population surveys and associated interventions (Bauman 1990; Bauman 1991; National Heart Foundation and Australian Institute of Health 1990; Owen 1992). Later, the Commonwealth Department of the Arts Sports and Territories conducted a survey of the fitness of Australians (Department of the Arts 1992) which was one of a number of epidemiological studies that contributed to the evidence base for the physical activity section of the Commonwealth Government's document setting out goals and targets for health (Commonwealth of Australia 1994).

Yet, over the same decade, participation by adults in leisure time physical activity declined (Armstrong 2000), obesity in adults and children increased (NH&MRC 1997) and physical inactivity was judged as second only to smoking in its contribution to the burden of disease (Mathers, Vos & Stevenson 1999). Despite these observations, I consistently noted advocates for physical activity struggling to have their message heard in the policy arena.

In 1996 an influential report from the United States Surgeon General became a landmark document which confirmed a move away from recommending frequent, unbroken sessions of intense physical activity. The new message recommends frequent, moderate activity which adds up to about 30 minutes on most days, but does not require unbroken sessions. The new message is both more difficult to measure and suggests a broader range and complexity of

strategies than the older message (Booth 1997). I observed that the new message made it more feasible to approach my research from a new public health perspective because the benefits of physical activity could be obtained during the activities that characterise everyday life, as opposed to specific purpose fitness activities added on to life. As the venues for physical activity broadened from the gym and the running track to the community, I welcomed the opportunity to adopt the World Health Organisation's settings approach, arguing that health is created where people live, work and play (Kickbush 1996), especially in South Australia where fewer resources were allocated to promoting physical activity than in New South Wales.

The United States Surgeon General's report also stimulated much action by such agencies as the New South Wales health department (Bauman 1997), appearing to locate leadership in physical activity promotion strongly within the health sector. Soon after, Sydney was confirmed as the host of the 2000 Olympic Games. Subsequently, the *Active Australia* strategy commenced originally as an as an initiative of the Australian Sports Commission and the Department of Recreation and Sport (Participation Division of the Australian Sports Commission 1996). Some months later, the Commonwealth Health department reviewed its policy and programs relating to physical activity (Strategic Sports and Recreation Pty Ltd 1997) and subsequently became involved as a partner in *Active Australia* (Sport and Recreation Ministers' Council 1997).

The observation that interest in physical activity was expressed by a number of sectors over a short period confirmed the views that I brought to the research about physical activity being much more than a health issue; in fact it is both complex and contested and has been claimed as the business of many sectors. My previous experience of the very important role of the education sector in physical activity in the 1980s[1], coupled with my observations of the various sectors expressing an interest in physical activity in the 1990s, led me to my interest in public policy in relation to physical activity: past, present and future.

Later in my research, when I was analysing epidemiological data about links between the environment and physical activity (MacDougall, Cooke, Willson & Bauman 1997) a number of Australian researchers were also considering ecological and environmental influences on physical activity, calling for the involvement of local government, urban planners and transport authorities (Corti, Donovan & Holman 1996; Corti, Holman, Donovan & Broomhall 1997; Hahn & Craythorn 1994). This research started to shift the focus from the individual to

[1] In the late 1980s I was Chief Planning Officer in the State health department and was responsible for funding and planning negotiations with intersectoral agencies concerned with physical activity, with strong roots in the education sector.

the environment and set the scene for the thorough examination of settings and physical activity that is consistent with the principles of the new public health.[2]

The problem to be researched

In the first weeks of my candidature I drafted the following questions and areas of interest for my research:

> *Epidemiological evidence supports the view that regular exercise may protect against the development of heart disease, improve mood and sense of well being and prevent some of the complications of conditions such as diabetes and osteoporosis. Consequently, there have been many efforts to increase the levels of participation in regular physical activity, starting with strategies to change the lifestyle of individuals or groups, or social marketing programs to improve awareness about the benefits of exercise. The advent of a social view of health is changing the focus of the exercise debate. Recent Australian research has identified the social, demographic and educational characteristics of physically inactive people and concluded that exercise is but one of a constellation of health related behaviours to be addressed by the New Public Health.*
>
> *The research focuses on people who do not engage in regular physical activity. It will seek to explain their behaviour using methods and theories from epidemiology, public health, psychology, and sociology. The research will suggest psychological and social marketing approaches to improve participation in regular physical activity and public policy initiatives designed to support choices and remove barriers to exercise.*

When I started to explore the literature and research issues in relation to public health and physical activity, I was struck by the concentration on epidemiological methods and interventions based strongly in behavioural psychology. This orientation contrasted starkly with trends, especially in South Australia, for health promotion to adopt a new public health perspective (Baum 1995).

Throughout the process of formulating my research questions, methodology and designing and analysing data, I endeavoured to draw together my experiences in behavioural

---

[2] In Chapter Two I explore the utility of a distinction between the new public health and other approaches to public health and describe the settings approach.

psychology,[3] sports psychology,[4] health planning and policy development, and activism within the new public health paradigm.[5] This led me to construct a question involving public health, healthy public policy and physical activity. Based on the new public health's emphasis on intersectoral collaboration for healthy public policy, and my observations of the multi-sectoral nature of physical activity, I developed an interest in looking at the history of different sectors' claims on physical activity and on strategies to frame physical activity within a new public health approach.

Underlying my research is a concern for equity and a focus on policy, which I found to be neatly encapsulated in the proceedings of the Second International Health Promotion Conference, held in Adelaide in 1988. The then Director-General of the World Health Organisation consolidated the focus on policy by explaining that the main aim of healthy public policy is to create the preconditions for healthy living through:

- closing the health gap between social groups and between nations
- broadening the choices of people to make the healthier choices the easier and most possible
- ensuring supportive social environments (World Health Organization 1988).

When I moved from such general understandings to develop specific questions about physical activity my research questions became:

1. What are the physical activity gaps between social groups and how does this gap relate to health and the other benefits of physical activity?
2. What are the constraints on choices and what needs to be done to make the choices of people to increase moderate physical activity the easier and most possible? How do ordinary people theorise about constraints on choices?
3. What is the role of the social environment in relation to moderate physical activity choices and what needs to be done to ensure supportive social environments? How do ordinary people theorise about supportive social environments?

---

[3] My MA thesis, in psychology, evaluated the development, installation and effectiveness of a community based program for families of children with behaviour problems. In addition, I worked as a psychologist and was Director of a community based mental health service for children and families.

[4] I have experience as a sports psychologist with elite athletes

[5] In addition to 5 years experience as Chief Planning Officer in the state health department I have served on a number of reviews of organisations (including Cabinet Office reviews) and represented the Minister of Health on Committees and Boards of Directors. I have been active in community health associations and in advocating for primary health care approaches.

Structure of the thesis

Chapter Two presents a review of the literature on the new public health with particular reference to its development in South Australia and its application to physical activity. The chapter explores moves towards designing strategies for physical activity promotion from a socio-environmental approach and a number of interacting historical and ideological influences on approaches to promoting physical activity. In particular, the literature review addresses the proposition that there is sense in distinguishing between the *new* public health and earlier understandings. A strong theme is the importance to the new public health of achieving structural change through policy development, involving a number of sectors whose actions comprise important determinants of health.

Chapter Three reviews primarily the social science literature on definitions of policy, approaches to policy formulation and types of policy research in order to inform the later analysis for physical activity policy. In particular, the review looks at literature that suggests strongly that policy development is not a detached, rational and technical process, but is invested with politics and values. Together, chapters Two and Three comprise a formative literature review, containing sufficient detail to derive the research questions and design the methodology. These reviews of literature are not exhaustive because the methodology incorporates qualitative research which requires further reviews of literature to help explain themes that emerge during the data analysis.

Chapter Four explains how I developed the research questions and designed the methodology and also describes in detail the research methods, samples and procedures for each of the four studies. As demonstrated in the methodology chapter, my research questions are not amenable to analyses based solely on epidemiological methods and I therefore needed to develop a methodology that mixed quantitative and qualitative methods. The chapter also shows how the research questions informed the planning and analysis of the four linked research studies and how each study fits into the overall methodology. In the chapter, I describe my role and contribution to each of the studies.

Chapter Five provides the first discussion of results and comprises analyses of case studies and documents in enough detail to answer the research question about the role and rationale of the state in relation to physical activity. In particular, I explore the link between policies and values in instances where physical activity policy frequently became the province of different sectors of society at different times.

In Chapter Six I present the results from an analytical epidemiological investigation of the results of a cross-sectional community health survey in Adelaide, South Australia and derive questions that informed the design and analysis of the later, qualitative, studies.

In Chapter Seven I present my analysis of the lay or ordinary theories that I detected when participants spoke about health and physical activity on the basis of data from focus groups and field studies exploring the reports and experiences of groups identified in Chapter Six as having experience of lower levels of physical activity. The chapter concludes with a discussion of the implications of my findings on ordinary theory for the medical, behavioural/lifestyle and socio-environmental approaches to promoting physical activity.

Chapter Eight analyses further data from the focus groups and field studies and presents my emerging analysis for policy. In this analysis, I develop an explanatory model, then I use case studies of physical activity in settings to explore environmental and policy changes, drawing on a process based on force-field analysis. I then combine the discussions of case studies with the analysis of ordinary theory from Chapter Seven and the history of discourses around physical activity and public policies from Chapter Five. The final chapter, Chapter Nine, summarises the results of the research and comments on implications for theory and practice.

Chapter 2
Public health and physical activity

The purpose of this thesis is to contribute to our understanding of how to increase the participation of the Australian population in regular, moderate physical activity, which, in turn, should lead to both individual and collective benefits that are summarised in Chapter One and referred to throughout the thesis. Even a cursory examination of these benefits shows this to be an area of inquiry that touches many institutions, structures and interests in society: or what are termed *sectors* in the shorthand of the new public health. Three key terms emerge from the statement of research purpose*: new public health, healthy public policy* and *physical activity*. The adoption of *new public health* and *public policy* as key terms shapes how the third key term, *physical activity*, is approached. This, the first of the literature review chapters, reviews the literature on the new public health while the next chapter reviews literature on healthy public policy.

History and the Ottawa Charter

While many discussions of the new public health start with the World Health Organisation's First International Conference on Health Promotion, held in Ottawa, Canada in 1986, there are four reasons why I explore an historical perspective both in this section and later in the thesis:

1. The history of public health did not start in 1986; there has always been a nexus in Australia between public health and the prevailing political and social environment at any one time (Baum 1998).
2. As I discuss in Chapter Five, there is a long history in Australia of governments and elites taking a keen interest in physical activity. Each public health era in Australia has its own, characteristic, discourse about physical activity, and a knowledge of these discourses can assist our understanding of the potential for changes towards healthier public policies.
3. Attempts to define the new public health demonstrate how difficult it is to describe a concept beginning with the word *new* without making some form of comparison. Therefore, one way to understand the new public health is by comparison and contrasts with the old public health.
4. Surely something now called new cannot be new for all time! One author, for example, distinguishes five public health movements that he claims can be called *new* at some time (Holman 1992).

I will take into account the four points above as I review the Ottawa Charter in this section. The Ottawa Charter sets out the defining characteristics of to what is now referred to as the

new public health. It has been argued that the genius of the Ottawa Charter, which is summarised in Appendix A, lay in its integration of many different perspectives on health promotion. In doing so, it built on medical and behavioural or lifestyle approaches and directed the task of health promotion towards a multi-pronged and multilevel strategy (Baum 1998).

Definitions of the new public health

The new public health is defined as follows:

> *The new public health is the totality of the activities organised by societies collectively (primarily led by governments) to protect people from disease and promote their health. These activities occur in all sectors and will include the adoption of policies which support health. They will also ensure that social, physical, economic and natural environments promote health. The new public health is based on a belief that the participation of communities in activities to promote health is as essential to the success of those activities as is the participation of experts. The new public health works to ensure that practices of the government and private sector (including the health sector) do not detract from health and wherever possible promote health"(Baum 1998 p. 510).*

Health promotion is an important public health strategy which people interpret in different ways according to the time and context in which it is used (Baum 1998). In the Ottawa Charter:

> *Health promotion is the process of enabling people to increase control over, and to improve, their health. To reach a state of complete physical, mental and social well-being, an individual or group must be able to identify and to realise aspirations, to satisfy needs, and to change or cope with the environment. Health is, therefore, seen as a resource for everyday life, not the objective of living. Health is a positive concept emphasising social and personal resources, as well as physical capacities. Therefore, health promotion is not just the responsibility of the health sector, but goes beyond healthy lifestyles to well-being" (World Health Organisation 1986 p.i).*

Health promotion represents a comprehensive social and political process. It not only embraces actions directed at strengthening the skills and capabilities of individuals, but also action directed towards changing social, environmental and economic conditions so as to alleviate their negative impacts on public and individual health (World Health Organisation

1999). Similarly, it has been proposed that the following four features are prominent in any coherent theory and practice of health promotion within a new public health context:

1. Broadening the definition of health to include social and economic determinants.
2. Going beyond the emphasis on individual lifestyle strategies to broader social and political strategies.
3. Embracing the notion of individual and collective empowerment.
4. Advocating the participation of the community in identifying and addressing health problems (Robertson & Minkler 1994).

At the start of this section I noted that when a term contains the word *new* it immediately signals a comparison with something that is old, older or somehow different. This now leads me to examine one antecedent of the Ottawa Charter with particular importance to physical activity, the lifestyle approach.

The rise of the lifestyle approach

Discussing the lifestyle approach, Baum (1998 p. 32) said "Internationally, the 1970s saw the discovery of lifestyle and its impact on health." In other words, personal behaviours and a personal responsibility for health were now placed alongside medicine, health services, biology and environment as influences on health and illness. This led to the influence of psychological theory, particularly behavioural psychology, on community programs and campaigns designed to change risk factors.

The lifestyle approach was adopted enthusiastically and applied to a wide range of health problems. One reason for this is the change in patterns of illness in industrialised countries from the late nineteenth into the twentieth century. Infectious diseases, germ theories and beliefs in the power of medical interventions gave way to an increase in chronic diseases (O'Connor 1995). In what is known as an epidemiological transition, as infectious disease mortality declines, it is replaced by a different pattern of chronic diseases, particularly cardio-vascular disease and cancer. This transition is broadly related to the level of economic development: in industrialised countries the rise of cardio-vascular disease occurs with economic development before subsequently declining as development continues (Marmot & Mustard 1994). The state began to invest not only in funding for medical procedures carried out by experts, but also for self-help procedures that were the responsibility of individuals under the guidance of experts (Baum 1998). In the discussion below, I cite just a few applications of the lifestyle approach in order to focus on the type of people and strategies that popularised the approach and that distinguish it from the new public health.

Of particular relevance to physical activity interventions was the development during the 1970s and early 1980s of programs based on behaviour therapy, social learning theory and community psychology. Much of this development was in the area of counselling and interventions for children with behaviour problems. One effective and popular intervention uses principles of social learning theory and behaviour therapy to encourage parents to learn new ways of coping with the behaviour of their children (Griffin & Hudson 1980; Patterson 1982; Griest & Wells 1983; Horne & Van Dyke 1983). Using this approach, therapists do not work directly with the child who has been identified with the problem. Rather, they use strategies that have been shown to be effective in teaching to non-professionals and parents skills formerly limited to therapists and to specify what happened during intervention so organised replication was possible.

A second example is from the counselling literature. What is now known in physical activity and in health education circles as the *stages of change* model has its roots in a paper in a psychotherapy journal warning of the potential for a crisis in psychotherapy as a result of the unprecedented pace at which new therapies were being created - 200 at the time and growing quickly. There were fears that diverse models would give an impression to the community of fragmentation, confusion and chaos and as a result there would be a retreat from the talking therapies to chemotherapy (Prochaska & DiClemente 1982). While acknowledging the need for creativity and diverse methods for the diverse needs for patients, Prochaska & Di Clemente (1982) sensed an emergent *Zeitgeist* in which therapists are searching for common principles of change; a search for convergence to balance the divergence of the previous two decades. They traced the history of attempts to identify common principles of change or develop integrative models. One movement towards a comprehensive theory of change*, transtheoretical therapy*, emerged from a comparative analysis of 18 therapy systems and proposed a model comprising these four variables:

1. Preconditions for therapy.
2. Processes of change.
3. Content to be changed.
4. Therapeutic relationship.

They then focussed on the second variable, processes of change, in order to identify the critical processes of change once therapy has started. They analysed 18 therapy systems and identified five change processes which they subsequently refined to propose a fledgling concept which they named *Stages of Change*. The concept aimed to use the transtheoretical model to account for the processes that individuals use to change both within and without therapy. They identified the following four stages in a retrospective study of people who successfully stopped smoking both with and without treatment programs:

1. Thinking about stopping smoking.
2. Becoming determined to stop.
3. Actively modifying their habits and/or the environment.
4. Maintaining their new habit of not smoking.

They rejected a linear model in favour of a revolving door schema presented as a circle whereby people started at different stages, stalled at different stages and re-entered the model at different places and times. Subsequently, in 1984, at an international conference in Scotland, researchers, theorists and therapists reported on the application of the emerging stages of change model to the treatment of addictive behaviours (Prochaska & DiClemente 1986). From there, the stages of change model has been applied in a range of health education programs; and particularly to physical activity (Sallis & Owen 1999).

During the 1970s and 1980s, academics and practitioners with experience in the application of social learning theory and counselling strategies moved into the public health workforce and applied these skills to health issues-including physical activity. Bringing their experience in areas such as behaviour therapy and counselling, they applied the principles of describing change processes in such a way that they could transfer a great deal of the responsibility and skills involved in changing behaviour from the professional to lay people. Following the lead of behaviour therapy and counselling, the responsibility and skills for changing health related behaviours were transferred by education-focussed approaches with individuals or groups, self-help books and telephone advice lines.

For example, I have reported (MacDougall 1995) that in South Australia Neville Owen's interest in physical activity started in the early 1980s when he became interested in applying his background in learning theory and clinical psychology to physical activity and community based health promotion. At a meeting with Tony Sedgwick from the Institute for Fitness, Research and Training[6] they discussed the issue of the high drop-out rate from organised exercise programs and the disappointingly low proportion of people who maintained their new exercise regime after the classes finished. Owen resolved to apply techniques from the psychological literature to improve the generalisation and maintenance of change in behaviour following an intervention program. He concluded that his theoretical perspective on behavioural persistence could provide insights into the high rate of drop-out from fitness classes and the poor maintenance of exercise habits following exercise interventions. Owen's association with IFRT was an opportunity to examine how altering fitness program structures and teaching self-regulatory skills to participants might improve program adherence and maintenance.

---

[6] IFRT is discussed in more detail in Chapter Five.

Owen also published with colleagues from the Health Development Foundation[7] and the Commonwealth Scientific, Industrial and Research Organisation (CSIRO) to discuss similar issues of maintenance of change (Owen 1989; Owen, Coonan et al. 1991).

In his early work, Owen used social learning theory from his training and experience as a behavioural psychologist as a framework to understand how environmental settings, social influences and peoples' actions influence behavioural change and persistence. He began to view exercise as a primary prevention strategy, and, with IFRT, studied participants in community fitness courses to see the effects of changing program structures and teaching self regulatory skills on program adherence and maintenance. This work led to publications on the practical nature of fitness course development (Sedgwick & Owen 1983; Naccarella, Owen & Haag 1986). At that time, Owen was influenced by systematic approaches to exercise he saw while on study leave in 1982 at Stanford University in California. Upon his return, he obtained a grant from the Australian Sport and Recreation Ministers' Council to prepare a monograph applying social learning theory to the adoption and maintenance of exercise, with particular reference to the policy implications (Owen & Lee 1984).

His later work involved the translation of the stages of change model to the problem of initiating and maintaining behaviour change in physical activity, smoking and diet. With the National Heart Foundation he collected exercise data from population samples before and after the 1990 and 1991 Heart Week exercise campaigns and played a major role in designing a population survey on behaviour, knowledge and attitudes related to cardio vascular disease and its prevention (Booth, Bauman, Oldenburg, Owen & Magnus 1992). [8]

The New Public Health's critique of the lifestyle approach

There are many critiques of the lifestyle approach (Blaxter 1990; Wass 1994; White 1996). From a new public health perspective, the next sections discuss four particular elements in the critique of the lifestyle approach, namely that it:

1. Downplays social factors.
2. Overemphasises the power of providing information.
3. Lacks persuasive evidence of success.

---

[7] HDF is discussed in more detail in Chapter Five.

[8] In 1999, with James Sallis, he published a book that aims to consolidate and integrate the now extensive body of knowledge on health-related physical activity with an emphasis on a behavioural science perspective. I refer to this book throughout the thesis as an excellent example of the lifestyle approach to promoting physical activity.

4. Adopts an ideology of individualism that cannot adequately underpin explanations of patterns of health and illness.

Downplaying the importance of social factors

Baum (1998) reviews a number of large-scale community projects and concludes that they primarily theorise behavioural problems with some minor recognition of societal factors. The focus on the individual creates an undercurrent of victim blaming, holding individuals responsible for their health status irrespective of their social and economic status:

> *"The available evidence on inequities in health status suggests that behavioural explanations of health inequities would, at best, explain only a small proportion of the difference between group." (Baum 1998 p. 316.)*

Baum (1998) cites by way of example research suggesting that behaviour makes most difference to health status when other conditions in their life are favourable. This contrasts with the argument that:

> *Because principles of behaviour change are expected to apply almost universally across groups of people, similar determinants are expected in different population groups. Because people live in a vast range of cultures, socio-economic strata, geographic locations, and social situations, some differences in the determinants are also likely" (Sallis & Owen 1999 p. 316).*

Table 2.1 is a good example of the way lifestyle advocates theorise about physical activity in the text in Sallis & Owen's (1999) review of approximately 300 studies into the determinants of physical activity. The table suggests that a lifestyle approach is most likely to concentrate on psychological and behavioural characteristics at the expense of environmental and policy determinants. However, the same authors are progressively expanding the scope of the lifestyle approach to include these factors.

Table 2.1 Associations of determinants with physical activity in adults (Sallis & Owen, 1999 p. 115)

Determinant	Associations with activity in supervised program	Associations with overall physical activity
Demographic and biological factors		
Age	00	--
Blue collar occupation	--	-
Childless		+
Education	+	++
Gender (male)		++
Genetic factors		++
High risk for heart disease	-	-
Income/Socioeconomic status		++
Injury history		+
Marital status	0	
Overweight/obesity	0	00
Race/ethnicity (nonwhite)		--
Psychological, cognitive, and emotional factors		
Attitudes	+	0
Barriers to exercise	-	--
Control over exercise		+
Enjoyment of exercise	+	++
Expect benefits	+	++
Health locus of control	0	0
Intention to exercise	0	++
Knowledge of health and exercise	0	00
Lack of time	--	-
Mood disturbance	-	--
Normative beliefs	0	00
Perceived health or fitness	++	++
Personality variables		+
Poor body image		-
Psychological health	0	+
Self-efficacy	++	++
Self-motivation	++	++
Self-schema for exercise		++

Determinant	Associations with activity in supervised program	Associations with overall physical activity
Stage of change		++
Stress	0	0
Susceptibility to illness/seriousness of illness		00
Value of exercise outcomes	0	0
Determinant	Associations with activity in supervised program	Associations with overall physical activity
Behavioural attributes and skills		
Activity history during childhood/youth		00
Activity history during adulthood	++	++
Alcohol		0
Contemporary exercise program	0	0
Dietary habits (quality)	00	++
Past exercise program	++	+
Processes of change		++
School sports	0	00
Skills for coping with barriers		+
Smoking	--	00
Sports media use		0
Type A behaviour patterns	-	+
Decision balance sheet	+	
Social and cultural factors		
Class size	+	
Exercise models		0
Group cohesion	+	
Past family influences		0
Physician influence		++
Determinant	Associations with activity in supervised program	Associations with overall physical activity
Social isolation	0	-
Social support from friends/peers	+	++
Social support from spouse/family	++	++
Social support from staff/instructor	+	

Determinant	Associations with activity in supervised program	Associations with overall physical activity
Physical environment factors		
Access to facilities: actual	+	+
Access to facilities: perceived	+	00
Climate/season	-	--
Cost of programs	0	0
Disruptions in routine	-	
Home equipment		0
Physical activity characteristics		
Intensity	--	-
Perceived effort	--	--

Key:

++ = repeatedly documented positive association with physical activity;

+ = weak or mixed evidence of positive association with physical activity;

00 = repeatedly documented lack of association with physical activity;

0 = weak or mixed evidence of no association with physical activity;

-- = repeatedly documented negative association with physical activity;

- = weak or mixed evidence of negative association with physical activity;

Blank spaces indicate no data available.

Table 2.1 demonstrates that the majority of variables studied relate to psychological and behavioural factors. The exceptions are descriptive demographic and biological factors such as age, gender and income, social and cultural factors including social support and physical environment factors such as facilities, climate and home equipment.

In another example, a much-quoted publication from an international conference summarised scientific literature to support a consensus statement on exercise, fitness and health. The consensus statement strongly emphasised individual and lifestyle factors::

> *"Personal attributes can classify people as likely to be responsive or non-responsive to interventions that are designed to increase their level of habitual physical activity. Available evidence from developed countries suggest many categories of people who are particular inactive in their leisure time and who, to date, have been unresponsive to supervised programs. Such target groups include blue-collar workers, low-income less-educated individuals, ethnic minorities, housewives, the physically disabled, smokers and those with a Type A behavior pattern. While resistant to an increase of physical activity, such groups are of interest to public health, since they are the people most likely to benefit from an increase in their personal activity" (Bouchard, Shephard, Stephens, Sutton & McPherson 1988 p.9).*

In this multi-authored, 62 chapter book there is scant mention of social or environmental factors. There is some discussion of social networks in the chapter on lifestyle, fitness and health while the chapter on the environment limits its discussion to exercise in the heat and cold, altitude, high pressure and polluted surroundings.

Overemphasis on the power of providing information

The second element of the critique is that models of behaviour change conceptualise health behaviour as being based on reason and rational choice, which in turn assume that health is a central feature in people's decision making. Further, these models assume a one-way transfer of information from the professional to the person. In contrast, newer understandings demonstrate a gap between lay and professional beliefs about health which are discussed extensively later in this thesis. Unless such gaps are acknowledged and explored, both parties could be left feeling inadequate after health education.

On the basis of their review of studies, Sallis & Owen (1999) support this element of the critique when they note that educational interventions may be limited in their impact, because even if people are convinced that they should be active, they may not be able to afford a health club membership or are fearful of doing physical activity in a high crime neighbourhood. They quote a study using the stages of change model which found that those in the pre-contemplation stage (who have not thought about increasing physical activity) are particularly low in exercise knowledge, but that lack of information about physical activity may be a finding specific to this stage (Sallis & Owen 1999).

When Sallis & Owen (1999) review interventions to promote physical activity in communities and populations, they note the strengths and limitations of mass reach campaigns, describing their impact in Australia as modest. Conclusions from mass communication, behavioural science, marketing theories and the findings of large-scale committee based heart disease prevention from United States and Europe suggest that mass media can play four main roles in promoting health behaviour change:

1. As an educator to introduce new ideas.
2. As a supporter to reinforce old messages or maintain change.
3. As a promoter to attract attention to existing programs.
4. As a supplement to community-based interventions.

Lack of evidence for success

A third and powerful element of the critique is the lack of evidence of effectiveness of programs. One example is the results of the Multiple Risk Factor Intervention Trial in the United States, where men in the top 10% risk for coronary heart disease (who would seem to

have the most motivation for change) were persuaded to make only minimal changes in eating and smoking despite six years of intensive programs (Syme 1996). Even if lifestyle programs do meet with some success with high-risk people there will be others who adopt risk behaviours because "...we have done nothing to influence those forces in society that caused the problem in the first place" (Syme 1996 p 22).

Similarly, worksite interventions based on behavoural methods were ineffective in increasing physical activity (Dishman 1998). The effectiveness of community wide interventions has been described as follows:

> *"We conclude that this field is in its infancy, and we need to learn much more about how to effectively increase physical activity in entire populations. It is likely that more intensive and longer term approaches are required" (Sallis & Owen 1999 p 163).*

Earlier in this chapter I noted how the Ottawa Charter integrates different perspectives on health promotion and builds on medical and lifestyle approaches to direct the task of health promotion towards a multi-pronged and multilevel strategy. Within this spirit, Baum (1998 p 319) concludes her discussion of the lifestyle approach as follows:

> *"Of course, behaviour change is often a prerequisite to changing health status. The key question is whether this is best brought about by programs directed at individuals or by programs that change the environments in which people make choices about their behaviour. Some of the classic programs based on behaviour change did not simply use methods aimed at individuals, but also sought to change people's decision–making environments and to provide them with a more supportive environment in which to make healthy choices..."*

Later in the thesis I discuss how an inter-sectoral approach adds to the focus on health and behaviour the idea that physical activity is an opportunity in society which is linked to health only tangentially.

Lack of evidence for generalisibility

A fourth element of the critique is exemplified by an evaluation of two large school smoking education programs that were conducted in the UK, based on American and Norwegian programs. The evaluation suggested that the originals may have been successful because of the experimental conditions under which they were conducted and thus could not be easily transferred to normal classroom conditions. This is an important line of critique because it mirrors a problem identified in the therapeutic behavioural interventions that were the precursors of the large-scale lifestyle interventions (Baum 1998).

Sallis & Owen (1999) argue that translating intervention research into practice may be the most important step in the behavioural epidemiology framework, because of its direct impact on public health. They strongly encourage researchers to study ways of enhancing the adoption of intervention programs, which is a difficult research problem, and note that behavioural medicine researchers have recently developed models and methods to guide this type of research.

The rise of the new public health

The influences from the radical social climate of the 1970s

1960s radicalism and social discontent in North America and Europe affected the general social climate in developing countries, especially Australia. The period was characterised by an increased generation gap reflecting contrasting ideas about the direction of contemporary society, the women's movement, and debates about rights; in short calls for more radical change. One change process that was to become central to the new public health involved community development ideas. As these changes occurred, there were calls for professional practice to become more reflective and to acknowledge the pervasive influences of class and power.

The ideas that were consolidated in the Ottawa Charter provided a language, framework and a call for change that had such local and international resonance that it became a rallying point and guide for teaching, research and practice. It was a powerful rallying point because it could be understood and adopted by many new entrants to public health who had academic or professional backgrounds that brought critical perspectives and commitment to the social change that originated in the 1970s.

Indeed, South Australia was a leader in social change in a period that came to be named the *Dunstan Decade*, in tribute to Don Dunstan, the reforming State Labor Premier. Some of these social changes paved the way for what was to develop into the new public health (Oxenberry 1995). South Australia in the 1970s was a place where social and cultural turbulence combined to produce expectations of newness and difference and a willingness to explore and experiment. There was not only political will and leadership for change, but also the resources to match.

In South Australia, from 1976 to 1983, the development of thinking about what was to become the new public health was influenced by people with experience in social work, social administration, health services, the women's movement, workers health and aboriginal health. This was reflected in work of some staff at the Foundation for Multidisciplinary Education in Community Health at the University of Adelaide. A key staff member there,

Elizabeth Furler was to move to the South Australian Health Commission to become in 1984 the Women's Adviser on health and in 1986 the Director of the Social Health Office. In this position, she gained considerable influence because she reported directly to the reforming Minister, Dr John Cornwall and had a seat on the South Australian Health Commission's executive (Raftery 1995).

The mid to late 1970s was an uncertain time for community health. A new federal Liberal government dismantled the former Whitlam Labor government's Community Health Program soon after it gained power in 1975. At the end of the 1970s, the reformist state Labor government was defeated. Although there was continued funding and reform in the community health sector, the incoming Liberal government undertook a range of initiatives that directly challenged the existence of the fledgling community health centres. One dramatic move was to take away the funding for the Hindmarsh women's health centre and eventually transfer the funds to a new Adelaide Women's Health Centre. That decision contributed to uncertainty for the directors of community health centres, still principally general practitioners, who started to meet regularly to support each other and to devise lobbying strategies. Key activists from the women's health centre movement, fresh from the turmoil created by the government's intervention in this sector, started attending these meetings. They concluded that the state government threatened their services and saw the benefit of a strategic alliance between women's health and community health. This wider alliance led directly to the formation of the South Australian Community Health Association, which became an important lobby group and think tank for the development of a socio-environmental view of health in South Australia (Broderick & Laris 1995).

These influential women, known as the *founding mothers* (Broderick & Laris 1995), brought with them a collectivist ideology which was reflected both in their view of the social determinants of women's health and a critique of an hierarchical bureaucracy. This led to flatter organisational structures and collective approaches to management (Broom 1991).

Concern with inequalities in health

> *Health promotion focuses on achieving equity in health. Health promotion action aims at reducing differences in current health status and ensuring equal opportunities and resources to enable all people to achieve their fullest health potential. This includes a secure foundation in a supportive environment, access to information, life skills and opportunities for making healthy choices. People cannot achieve their fullest health potential unless they are able to take control of those things which determine their health. This must apply equally to women and men" (World Health Organisation 1986).*

There was growing concern in industrialised countries about inequalities in health and the failure of health services to do much about them. In Australia there are clear social patterns in the distribution of health and illness. People with lower income and lower prestige jobs report poorer health. Women are more likely to report recent sicknesses or illnesses than men, despite the fact, on average, they live longer than men. People living in non-metropolitan areas have significantly higher death rates than those living in metropolitan areas (Baum 1998).

In relation to physical activity the results of a number of epidemiological studies suggest that physical inactivity is distributed in similar ways to other health indicators. Sallis & Owen (1999) report studies indicating that

- women are more likely to be inactive than men;
- physical inactivity increases with increasing age;
- the prevalence of physical inactivity decreases with increasing levels of education;
- in the United States non-Hispanic whites had lower rates of physical activity than non-Hispanic blacks and Hispanics.

Healthy settings

In this thesis, the perspectives from the new public health that open up new directions for research and theorising include the emphasis on supportive environments with its focus on healthy settings. This position leads to the importance of intersectoral action because, according to the Ottawa Charter, the prerequisites and prospects for health cannot be ensured by the health sector alone. More importantly, health promotion demands coordinated action by all concerned, including, governments, local authorities, health and other social and economic sectors, industry, non-governmental and voluntary organisations and the media (World Health Organisation 1986).

Central to the WHO's beliefs is the statement from the Ottawa Charter that 'Health is created and lived by people within settings of their everyday life; where they learn, work, play and love'. It is carried out by and with people, not on or to people! The Settings for Health approach to health was reinforced by the Jakarta Declaration on Leading Health Promotion into the 21st Century (World Health Organisation 1997).

A setting is where people actively use and shape the environment and thus create or solve problems relating to health. Settings can normally be identified as having physical boundaries, a range of people with defined roles, and an organisational structure. Projects arising from the settings for health approach are now being implemented all over the world, some linked officially to WHO networks, others working independently in the spirit of a new public health approach. Examples are:

- Healthy Cities;
- Healthy Villages;
- Healthy Islands;
- Health-Promoting Hospitals;
- Health-Promoting Schools;
- Health in Prisons;
- Healthy Market Places;
- Workplace Health Promotion.

Action to promote health through different settings can take many different forms, including change to the physical environment. Settings for Health projects have certain elements in common, such as:

- A policy and strategic perspective;
- actions at political and technical levels;
- focus on organisational development and institutional change;
- building alliances and collaboration between sectors, disciplines and political/executive decision makers;
- community involvement and community empowerment.

The WHO Healthy Cities project aims to place health high on the agenda of decision-makers and to promote comprehensive local strategies for health and sustainable development (World Health Organisation 1999). Nancy Milio explains the link between the new public health and the Healthy Cities movement by saying that there can be no health without community-that sense of mutual values and goals held by people and their collective responsibility for nurturing their biophysical environment. She goes on to say that:

> *"Both facets of "community" - the commitment to people and to place - are essential conditions for health. Nowhere are we reminded more of the importance of this commitment than in the interdependencies of daily life in cities....The new public health when expressed locally might be viewed as "community" - it binds people and builds communities, and it is neatly embodied in the concept of Healthy Cities" (Milio 1990 p. 291).*

For the World Health Organisation, urban health is increasingly relevant and challenging, especially for the European Region. There are growing health challenges in cities including poverty, violence, social exclusion, pollution, substandard housing, the unmet needs of elderly and young people, homeless people and migrants, unhealthy spatial planning, the lack

of participatory practices, inequality and unsustainable development. The Healthy Cities project is a mechanism for promoting policies and programs that involve explicit political commitment, institutional changes and intersectoral partnerships, innovative actions addressing all aspects of health and living conditions and extensive networking between cities (World Health Organisation 1999).

Australian examples involving physical activity include studies using the Health Promoting Schools framework (Thomas & Hehir 1998), the Safe Communities framework (Morris, Mann & Byrne 2000) and the Ottawa Charter for Health Promotion (Bauman 1997).

In relation to physical activity and heart health, Table 2.2 summarises lessons from the first generation heart health programs. The evaluations of the community heart health programs paid little attention to issues of equity, rarely reporting data on the differential impact on different groups within their populations. The first generations of these programs were not easily translated to other settings. They had large budgets and placed limited emphasis on low income, inner city or minority populations. Like the conclusion from the critique of the generalisation of programs from a demonstration site to another setting, this table demonstrates the importance of involving communities, multiple strategies and purpose-designed interventions.

Table 2.2 Lessons from the first generations of heart health programs.

Elements that helped to achieve the successes of heart health programs
1. Community participation in the planning, design and evaluation of interventions helps the community adopts the intervention.
2. All aspects of the planning and intervention should be data-driven.
3. Feedback to the community is essential.
4. Primary prevention should be given priority over secondary prevention or treatment. Population wide change should be the main aim.
5. Multiple strategies that address multiple risk factors, promoted in a range of different ways are more effective than narrowly focused interventions.
6. Policy and environmental interventions are often more effective and preferred to direct behaviour change efforts.
7. Community capacities to develop, implement and sustained interventions should be a priority. State health departments have an important role in facilitating, sustaining and disseminating the efforts from heart health programs.

Adapted from Baum (1998 p 313).

An evaluation of the Finnish North Karelia coronary heart disease program encapsulates the view that the lessons from, and critique of, large scale community programs are that their successes are attributable not to behavioural interventions alone, but to factors that sit comfortably with the discourse of the new public health. These include a broad-ranged community organisation, provision of primary health care services and involvement of various

other community organisations to create a social atmosphere more favourable to change (Baum 1998).

Critical appraisal of the new public health

This section introduces five problematic issues that should be taken into account in the course of research in the new public health tradition:

1. The debate about whether it even makes sense to talk of a new public health.
2. Health as a means or an end and the possible problem of healthism.
3. A discussion of the web model whereby every health issue is related to a multitude of others leading to potential pitfalls and paralysis.
4. The dichotomy that is often posed between a macro and micro view of health.
5. Whether the new public health risks further commodifying health, rendering it further outside the control of the individual.

The old versus new debate

Baum's (1998) position in favour of the label *new public health* is based on observations of history and implications for the practice of public health. She argues that the Ottawa Charter built on, rather than ignored, public health history; for example distinctive social movements including nineteenth century public health, feminism, the green and consumer movements and experiments in community development. Then, focussing on practice, she goes on to argue (Baum,1998 p.43) that the claim of newness for the Ottawa Charter

> *"... derives from how it pulled together numerous and diverse movements to present a package which gave public health a more radical and cohesive direction than had been the case for some time. (and) ... served to make health promotion a legitimate and respectable aspect of the health scene."*

Similarly, Robertson and Minkler (1994) note that practitioners of the old public health had certainly attempted to employ one or more of the features of the new public health. The difference with the new public health however is that it goes considerably further and consolidates all of the features into a coherent, clearly articulated theory and practice.

From a feminist perspective, the women's health movement is interested in the whole woman and her social environment and material circumstances and thus adopts a holistic approach to health. Therefore, the movement has adopted a social model of health (with its roots in the new public health) which takes the environment into account, treats people in social contexts, conceptualises the physical environment as socially organised and understands ill-health as a

process of interaction between people and environments. It stresses the fundamentally social character of the distribution of illness and argues that for the greater health of all people prevention should be emphasised at least as much as treatment in the allocation of health resources. In contrast, the medical model locates disease within the person and conceptual rises the sources of disease in terms of germs, physical insult or defects in the individual's physical structure or function. It takes the environment into account only in so far as it exposes individuals to infectious, toxic or injurious agents, and allocates health resources to medical or surgical services for sick individuals. In the process, of contemporary specialist technical medicine fosters fragmentation. The advent of the social model of health enables women's health activists to resist the medicalised model that attributes all women's difficulties to defective bodies and constitutions; an approach which depersonalises women's protests and troubles by classifying symptomatic behaviour as *natural.* The importance for Broom of this viewpoint is that it is usually either impossible or inappropriate to interfere with patterns of products of nature. It leads to the claim that if it is natural we can't change it. But even when it is deemed possible to intervene in a natural event, the basis of the intervention is politically different from when the circumstances are understood to be socially based. For women's health, a social (or new public health) model encourages a focus on the social and cultural practices of medicine and on medical and other discourses that are involved in the production of social meetings of health illness and femininity (Broom 1991).

Some have positioned the new public health as an evolved form of public health that goes beyond its original modernist strategies and philosophies. For example, it is contended that the new public health is characterised by features of late modernity or postmodernity, as it distances itself from hospital-centred curative medicine, focuses on multisectoral efforts and emphasises the active participation of individuals rather than passivity. Further, the new public health represents new forms of social mediation in relation to health and illness based on assumptions of contingency, a plurality of rationalities and the abandonment of truth claims (Burrows, Bunton, Muncer & Gillen 1995). However, other writers disagree that the label new can be justified by the argument that it signifies a break with modernity. On the contrary, they argue that, despite its postmodern claims, the new public health retains central features that can be described as modernist and it remains a conventionally modern enterprise. By way of example, they state that the new public health:

- emphasises evaluation using rational strategies;
- routinely employs of medical, scientific, epidemiological and social scientific knowledges as truths to construct and find solutions for public health problems;
- continues to privilege professional over lay expertise (Peterson 1994).

A former Director of the Public and Environmental Health Service in the South Australian Health Commission, took a different view of the implications of this debate for practice and

described people who defined the new and old public health as mutually exclusive as out of touch with reality and causing serious divisions in the work force and institutions of learning. Apart from citing the conclusion (but not the arguments) of one author who argues that none of the perspectives described as the new public health provide an adequate basis for public health practice, Kirke unfortunately does not elaborate upon his assertion (Kirke 1995).

Health as a means or end and healthism

It has been argued that a fundamental ideological conflict exists about the goal of health promotion. "Should the goal be improved health status (individual and collective) - health as an end? Or should the goal be social justice - health as a means?" (Robertson & Minkler 1994 p. 297). On this point, the Ottawa Charter (1986) is very clear:

> *Good health is a major resource for social, economic and personal development and an important dimension of quality of life. Political, economic, social, cultural, environmental, behavioural and biological factors can all favour health or be harmful to it. Health promotion action aims at making these conditions favourable through advocacy for health" (World Health Organisation 1986).*

However, efforts should be made to avoid *healthism*, which operates on the questionable assumption that everyone should work and live to maximise their health (Metcalfe 1993) and can recast health as a moral value (Peterson 1994).

> *"If health becomes the analytical lens through which all social issues are seen, it may dilute and obfuscate not only health related efforts but other social and political efforts as well " (Robertson & Minkler 1994 p. 299).*

This would imply that the primary reason for advocating for increased physical activity is the association with improved health status; an idea that is questioned throughout the thesis.

Commodification of health

It could be argued that by redefining health more broadly - as a resource like wealth or education which is variously distributed among people - we may risk further commodifying the notion of health.

> *Health becomes even more than before something that resides outside of oneself, determined now by the entire social context and conferred by a new set of experts with new knowledge bases and new skills. As a result people may feel even less control over their health than before" (Robertson & Minkler 1994 p. 299).*

The medical view of health has been criticised for identifying people with their illness, lack of health or disability, leading to victim blaming. The lifestyle approach was criticised for turning health into a commodity to be bought and sold in the marketplace of doctors' rooms, hospitals, health food shops, gyms and stress management programs. On the other hand, the WHO definition makes a separation between individuals and their health, which can itself be problematic.

The web model

The new public health adopts a multi-factorial model arguing that health is affected by many factors all linked with one another like the threads in a web. This suggests that to be effective an intervention seemingly has to attack all possible causes of ill-health at once. In practice, such a model can be a recipe for not taking action (Tesh, Tuohy, Christoffel, Hancock, Norsigian, Nightingale & Robertson 1988).

In order to rise to this challenge, it is helpful to explore Tesh's analysis of a major shortcoming of the multifactorial, or web, theory of disease causality: namely its focus on the general causes of disease, instead of on the people who become sick (Tesh, Tuohy, Christoffel, Hancock, Norsigian, Nightingale & Robertson 1988). Accordingly, when disease is discussed using the language of ecology and multiple sources "... there is no easy bridge to a discussion about the men, women, and children to whom prevention policy is directed" (Tesh, Tuohy, Christoffel, Hancock, Norsigian, Nightingale & Robertson 1988 p. 258). Disease is linked to social class and so many policies need to change; however "When we talk about the need for such things as healthful housing, food, education, work environments, and social security, we are not concerned with everybody. People at the bottom need these things; people at the top already have them, and in order to overcome this shortcoming:

> *"With this in mind, we should consider changing the question facing us. When we ask ourselves how to devise health (sic) public policies, we think about adding health components to existing policies ... Surely this is useful work. But consider another kind of question. How can the lives of the diseased poor be made more like the lives of the healthy rich? Such a question has the advantage of implying a fundamental cause of disease. Among the interacting multiple causes, it recognises the primacy of poverty. By focusing attention on the most important issue, it helps to create a conceptual hierarchy of causes out of the confusing multifactorial web. The question therefore helps us to design the disease prevention policies with the most impact on public health" (Tesh, Tuohy, Christoffel, Hancock, Norsigian, Nightingale & Robertson 1988 p. 258).*

One example of this difficulty is provided in an investigation of petrol sniffing among young indigenous people in remote Australian communities. When considering how to plan interventions, there are potential adverse implications of accepting the view that petrol sniffing arises primarily from cultural disintegration due to colonisation and dispossession (Roper 1998) because:

> *"This presents a problem. The overemphasis on external factors and the use of a socio-political framework to explain a social problem perpetuates, in effect, the 'victimisation' of Aborigines. They are understood to be the helpless victims, overwhelmed by oppressive social circumstances and the power of the dominant society ... More seriously, by de-emphasising personal control of, and responsibility for, abuse and by focussing on external causes, these models make interventions feasible only on a grand scale, for example, the eradication of all forms of overt and covert social oppression" (Brady 1992 p. 1).*

A macro-micro dichotomy?

One critical evaluation of the new public health movement argues that it is essential to examine words that the new public health movement uses, such as empowerment and community participation, and explore what they mean and whether they mean the same to everyone who uses them because "To invoke these words is to invoke powerful symbolic concepts" (Robertson & Minkler 1994 p. 297). By exploring such words, Robertson & Minkler (1994) aim to unpack underlying ideological conflicts and accompanying turf battles that have arisen as the new public health has taken health promotion in new directions. They argue that what is contested frequently depends on whether we take a macro or a micro view of the meaning of health and ways to achieve it.

A macro view emphasises the larger structural forces (economic, political, cultural, organisational) that shape everyday lives. The micro view emphasises the everyday practices of individuals. Robertson & Minkler (1994) argue that analytical and operational power is lost by setting up the ideological dichotomy of the macro versus the micro-level. A more constructive approach is to re-frame these two spheres as being in a dialectical relationship with each other: each informs, produces, and reproduces the other - mediated by the mid-level sphere of social organisations. These organisations include churches, neighbourhood organisations, schools, service organisations, voluntary organisations and the networks which link these. Robertson & Minkler (1994) referred to these as *mediating structures*.

They argue that although it is true that structural forces at the macro level shape the everyday lives of individuals - the reverse also holds. That is, the everyday practices of individuals shape structural forces, thus tempering the notion of sociological determinism with

the noted notion of human agency (Robertson & Minkler 1994). For example, disability rights groups enabled persons with disabilities to reframe as social pathology what was once framed as individual pathology. Disability was re-conceptualised as the result of a social environment which disregarded the existence of people with disabilities by making it difficult, if not impossible for them to participate in public life. Part of the solution was to reform social and physical environments and make public spaces accessible to persons with disabilities. In the process, in C. Wright Mills terms, they argue that personal troubles were re-cast as public issues.

Three approaches to promoting physical activity

In this section I start from the position that, while the Ottawa Charter integrates a number of perspectives on health promotion, there are common distinctions between medical, behavioural and socio-environmental approaches to health promotion and these have implications for the promotion of physical activity. I draw on the distinction that was first made between three approaches to health promotion with respect to reducing cardio-vascular disease (Labonte 1992) and then generalised to health promotion (Baum 1998). In this section, I introduce the three approaches and briefly discuss their application to physical activity. I spend some time discussing the different ways physical activity is measured under each approach, but leave a more detailed discussion until the later chapters of the thesis where I reflect on the implications of my research for the three approaches to the promotion of physical activity.

There are three observations about these distinctions:

1. These approaches are complementary, not exclusionary.
2. Their characteristics are presented in a simplistic, stereotypic fashion.
3. The behavioural approach accommodates the medical approach and in turn both are accommodated by the socio-environmental approach (Labonte 1992).

Table 2.3 partially summarises the three approaches, concentrating on the implications of different ways of defining health and physical activity for the design of my research. [9]

[9] In this chapter I provide a partial summary of the three approaches to promotion of physical activity. In Chapter Nine, I revisit these three approaches, as revised by Baum (1998) and use the findings of my research to elaborate on the three issues that complete the table: namely the focus of intervention, main strategies and success criteria.

Table 2.3 Approaches to promoting physical activity: Definitions of health and physical activity

	Medical	Behavioural	Socio-environmental
Definition of health	Clockwork model	Clockwork model incorporating ordinary people's perspectives	Combination of clockwork, ordinary people's and critical perspectives
How physical activity is defined	Procedure	Prescription	Pastiche

Adapted from Baum (1998 p 291)

Definitions of health and physical activity in each approach

Medical approach

The medical approach adopts a *clockwork* perspective which studies the body through its component parts and defines health as the body operating like an efficient machine. When the machine breaks down, it is not healthy (Baum 1998). The health-related fitness components of physical activity include muscular endurance, muscular strength, body composition and flexibility (Sallis & Owen 1999). Later in this thesis, in Chapter Five, I describe the introduction of physical activity to the treatment and rehabilitation of cardio-vascular disease as an example of physical activity being defined in similar ways comes similar to other medical *procedures*, namely:

> *"A particular mode or course of action...In computing: a set of instructions for performing a specific task, a sub-routine...For example as in surgical procedures" (The new shorter Oxford English dictionary 1993 p. 2363).*

Behavioural approach

The behavioural approach to physical activity makes extensive use of epidemiological methods (Sallis & Owen 1999). An important issue for these epidemiological studies and the health promotion programs that they inform is to decide how to measure physical activity. Over the last few decades, there have been three phases in classifying and recommending levels of physical health in relation to health benefits.

The first series of recommendations were that adults should undertake vigorous physical activity, at least three times per week, for a minimum of 30 minutes. This recommendation came from the American College of Sports Medicine's 1978 effort to define the amount of physical activity needed to improve aerobic fitness and body composition in healthy adults. The resultant guidelines became the standard recommendations for promoting vigorous

physical activity (Sallis & Owen 1999). In this phase, researchers focussed their measurement efforts on the presence or absence of vigorous activity 3 or 4 times per week. In their reflections on these guidelines, Sallis & Owen identified three problems:

1. Although they were based on how much activity was needed to promote aerobic fitness in sedentary adults, the guidelines quickly became interpreted as the amount of physical activity needed to ensure good health.
2. Despite the fact that most of the studies on which the guidelines were based were conducted with young, Caucasian males, they were generalised to women, children, the elderly and all ethnic and racial groups.
3. The aerobic exercises specified in the guidelines were not attractive to the majority of adults (Sallis & Owen 1999).

The second phase resulted from research which contributed to a more refined understanding of the effects of different types and amounts of physical activity on various health outcomes. The new research comprised both laboratory and epidemiological studies. When researchers re-examined the results of laboratory studies they concluded that the documented benefits of physical activity could be achieved by physical activity performed at lower intensities than recommended in the 1978 guidelines. Epidemiological studies demonstrated that moderate levels of physical activity were sufficient to provide important protection from cardio-vascular diseases and all-cause mortality. In particular, the greatest risk reduction occurs when people move from the least active to the moderate active group, while there is less improvement when people move from moderate to high levels of activity (Sallis & Owen 1999).

In this second phase, epidemiological studies typically divided population samples into those who were sedentary/low activity, moderate activity and vigorous activity (Bauman 1987; Bauman, Owen et al. 1990; Bauman and Owen 1991; (Owen & Bauman 1992). The resultant public health interventions were directed towards increasing the participation in physical activity of people who are sedentary or have low activity levels, without necessarily specifying a minimum level of activity that is associated with health benefits. Over a number of years in Australia the public health goal in relation to physical activity has been to build on what people already do and achieve small increases in physical activity (Bauman, Owen & Rushworth 1990; Bauman & Owen 1991; Owen & Bauman 1992). For example, in the document setting out the Commonwealth government's goals and targets for health, it was argued that

> *"The greatest health benefits to the community are likely to result from encouraging those who are sedentary to participate in regular moderate exercise, rather than persuading those who are already active to exercise more" (Commonwealth of Australia 1994 p. 54).*

The current, third phase, interprets the US Surgeon General's Report on physical activity and health (U.S. Department of Health and Human Services 1996) and points to the population need for all adults to undertake regular, moderate physical activity, which can be accumulated during the day. It is argued that the best epidemiological evidence for health benefits is for the prevention of cardio-vascular disease and the reduction of all-cause mortality among those who are physically active, compared with those who are sedentary. Evidence is also strong in the prevention of colon cancer, reducing the incidence and complications from diabetes, and in having a positive effect on blood pressure, relative body weight and HDL cholesterol levels. Other benefits probably include a benefit in stroke prevention, a possible role in some other cancers, osteoporosis prevention and in fostering social and mental health. Physical activity may also be an adjunctive therapy for many with clinical depression or anxiety. Although physical activity has a role in weight maintenance, more sustained and vigorous activity may be needed to achieve long-term weight loss among the obese and overweight (Bauman 1997).

After the publication of the US Surgeon General's report in 1996, there was a change in the way Australian researchers classified levels of physical activity. For example, Bauman analysed the results of a survey in New South Wales by reporting on the prevalence of *adequate* energy expenditure (Bauman 1997). Two years later, in a paper reporting a coastal effect on participation in physical activity, Bauman and colleagues used the classifications *sedentary*, *adequate* and *high* levels of activity (Bauman, Smith, Stoker, Bellew & Booth 1999). In a 1997 draft report, the language again changed slightly, with the more neutral term *sufficient* replacing *adequate* (Bauman 1997). In the design of a recent South Australian survey of physical activity, the researchers attempted to be consistent with emerging practice by adopting the terminology and criteria for classifying physical activity levels as *sedentary, below sufficient levels, sufficient* and *vigorous* (South Australia Department of Human Services 1999).

In each of the three phases described above, the guidelines recommending levels of physical activity resemble a prescription, which is defined as

> *"The action or an act of prescribing by rule ... A thing which is so prescribed ... A doctor's instruction, usually in writing, for the composition and use of a medicine ... Also, any treatment ordered by a doctor." (The new shorter Oxford English dictionary 1993 p. 2339).*

Within the behavioural approach, the recommended levels of physical activity comprise a prescription that can be undertaken by people according to instructions that are relatively precise, frequently involving minimum standards about such factors as purpose, site, execution, duration, equipment and supervision.

Prescriptions are designed and given by experts and frequently require co-operation and action from other experts or the person receiving the prescription. Doctors, in particular general practitioners, are usually associated with the term prescription, for example:

- the Green Prescription trial in New Zealand found that a written physical activity prescription led to more change on several physical activity variables than verbal advice alone (Swinburn, Walter, Arroll, Tilyard & Russell 1998);
- the Active Practice Project in New South Wales found that written prescriptions plus additional reinforcement by General Practitioners can lead to short term improvement in the duration of physical activity undertaken by inactive patients (New South Wales Health 1999);
- in South Australia the Gently Physical project encourages General Practitioners to give written prescriptions for physical activity (Lindsay Holmes and Associates 1999).

However, the behavioural approach differs from the medical approach in that individuals are encouraged to take some responsibility for changing their lifestyle and planning and monitoring the implementation of the prescription.

I have argued earlier that many researchers believe that physical activity is too low on the policy agenda, despite the evidence for the risk of physical inactivity and benefits of increased activity. One reason that has ben advanced for this is the failure to disseminate positive scientific results and translate them into practice (Nutbeam 1996).

Socio-environmental approach

The socio-environmental approach is predicated on a broader definition of health than under the behavioural approach, and this is reflected in the contrasting rationales for recommending levels of physical activity. Under the behavioural approach, the rationale for deciding on the weekly amount of physical activity is evidence about a dose-response relationship between particular levels of energy expenditure and specified health outcomes such as protection from cardio-vascular disease and all cause mortality (Sallis & Owen 1999). The argument is that there is no improvement on these specifies health outcomes from levels of physical activity below those recommended by the US Surgeon General.

Under the socio-environmental approach, the rationale for recommending increases in physical activity without specifying a minimum level relates to a number of strands of evidence, for example:

- research proposing a possible relationship between physical activity and such health outcomes as social and mental health (Bauman 1997). In this case, evidence does not yet exist for a dose-response relationship with physical activity;

- elderly people are most likely to experience the effects of decades of sedentary living, whereby long periods of not using muscles is believed to lead to an inability to engage in what are called *activities of daily living*. When older people lose endurance ability and muscular strength they may have trouble walking to shops, climbing stairs, getting up from a chair or carrying bags. Exercise can dramatically improve elderly people's ability to do these activities of daily living (Sallis & Owen 1999). In this case, the relevant health outcome may be best described in functional, rather than energy expenditure terms, because the aim is not to prevent such outcomes as cardio-vascular disease but to help with activities of daily living;
- similarly, my research described later in the thesis found that people appreciate the social support they derive from walking to shops or local destinations or from attending clubs and groups which structure opportunities for social support combined with physical activity (Wright, MacDougall, Atkinson & Booth 1996). In this example, the appropriate level of physical activity is not defined by energy expenditure, but by the amount needed to keep in touch with one's local community or community of interest, whether that is a five minute walk to a social group or a forty minute walk to the shops.

In these examples, the understanding of *health*, while including reference to specific health outcomes, adds such additional considerations as enhancing and maintaining social relationships, older people continuing to live independently and do some of their own gardening and housework and the more intangible social and mental health benefits of moving around a community and thereby feeling connected to that community. Given the complex relationship between social support and health discussed later in the thesis, it is quite possible to argue that increased physical activity leads to better capacity for social support, which in turn improves health.

Researchers with experience in the behavioural approach are now reflecting on the implications of the emerging recommendations about desired levels of physical activity on promotion programs and arguing that they offer a challenge for those involved in promoting physical activity. Because there are many more daily opportunities to engage in moderate activity than in vigorous activity, we need to consider a much wider range of policies and settings. We now need to consider ways in which government and private sector policy and environmental change may be planned to make it easier for people to incorporate physical activity, primarily walking, into their daily lives (Booth 1997).

These reflections coincide with other Australian research linking the environment to the ability to incorporate physical activity into daily life. In Western Australia, research concluded that, while proximity and accessibility of free and pay recreational facilities are important, they alone do not explain the patterns of use of facilities. Other factors included age and ability, urban design features and attractiveness, for example tree coverage, greenery and

maintenance of parks (Corti, Donovan & Holman 1996). Similarly, focus groups in rural New South Wales argued that there was insufficient infrastructure for unstructured activities such as walking and cycling compared with infrastructure for sport; an observation confirmed by an analysis of land use (Hahn & Craythorn 1994). Both studies recommended intersectoral collaboration between urban designers and the health sector, which I have incorporated into the design of my research.

A recent Australian study examines the association between geographical proximity to the coast and physical activity participation levels. The study noted that the potential influence of the physical environment on physical activity is increasingly recognised, yet the nature of this relationship is not well understood (Bauman, Smith, Stoker, Bellew & Booth 1999). From a social ecology perspective in health behaviour research, health behaviours are the product of a dynamic relationship between personal characteristics and facets of the social and physical environment. The study provides descriptive data which can indicate the contribution of physical environmental variables by examining the relationship between proximity to the coast and various measures of physical activity using data from a telephone survey of 16,178 people in New South Wales, Australia. A logistic regression model examined the effect of location of residents on physical activity, after adjusting for gender, employment status, education and country of birth. Proximity to the coast is independently associated with higher levels of physical activity. People who lived in a coastal postcode were 23% less likely to be classified as sedentary, 27% more likely to report levels of activity is to that considered adequate for health and 38% more likely to report high or vigorous levels all effect of physical activity than those who lived inland (Bauman, Smith, Stoker, Bellew & Booth 1999).

Sallis & Owen (1999) noted that there is now broad interest in environmental influences in health promotion generally and for physical activity promotion in particular. Ecological models of health behaviours can be used to guide new environmental and policy interventions. While it is widely recognised that social and physical environments can influence health behaviours, they argued that few studies have directly applied ecological models to understanding or intervening in physical activity. They describe *behaviour settings* as a key concept to aid and understanding of the potential impact of social and physical environmental influences. Behaviour settings are critical to understanding physical activity, because activities at that in specific places and places have characteristics make it easier for people to be active, while other places make it hard to be active. Sallis & Owen (1999) argue that few studies have documented the effects of environmental interventions on physical activity, and thus have proposed a simple ecological framework which they hope will be useful in stimulating further investigation in this area. This framework is being adopted in North America by such organisations as the Centers for disease Control (Centers for Disease Control and Prevention 1997).

These types of physical activity resemble a pastiche, which is defined as

> *"A medley of various things ... A picture or musical composition made up of pieces derived from or imitating other sources" (The new shorter Oxford English dictionary 1993 p. 2339).*

As recommended levels of physical activity resemble pastiches rather than prescriptions, there is more scope for people to use their own theories of health and physical activity by selecting and interpreting information from a number of sources, including their own purposes and theories.

Conclusion

In this chapter I have reviewed literature on the new public health with particular reference to its development in South Australia and its application to physical activity. I conclude that, while there are moves towards designing strategies for physical activity promotion from a socio-environmental approach, these moves are in their infancy.

The review has demonstrated a number of interacting historical and ideological influences on approaches to promoting physical activity. In particular, my critique of the new public health has concluded that indeed there are significant differences between the behavioural and socio-environmental models which support the argument that there is sense in distinguishing between the *new* public health and earlier understandings. When I analyse the research findings in later chapters, I return to the review in this chapter of health as a means or an end, the pitfalls of the web model of health and the notion of a dichotomy between a micro and macro view of health.

A thread running through this chapter is the importance to the new public health of achieving structural change through policy development, involving a number of sectors whose actions comprise important determinants of health. For this reason, the next chapter reviews the literature on policy and healthy public policy.

Chapter 3
Public policy

The review of healthy public policy in this chapter takes into account the critique by that the literature of healthy public policy is largely exhortatory and proscriptive rather than empirical and it is often redundant because the same ideas seem to be re-worked and traded back and forth (Pederson 1988). Pederson et al claim that the literature is not theoretically grounded because it does not reference the literature of the social sciences. In this chapter, I have worked from the observation that "a useful research strategy would be to bring social science theory explicitly to bear on the issues of co-ordinating healthy public policy" (Pederson et al 1988 p.iii).

While Chapter Two discussed the first of the three key terms to emerge from the statement of research purpose - *new public health,* this chapter reviews the literature on the second key term - *public policy.* The chapter defines policy, discusses policy processes in some detail and develops a position on the type of policy study that is undertaken in this thesis.

Policy and values

"Policy is essentially a stance which, once articulated, contributes to the context within which a succession of future decisions will be made" (Ham & Hill 1993 p. 11). The implications of this definition are that we should look for a pattern comprising a number of decisions rather than focus exclusively on specific decisions and that we should consider why action was taken in some circumstances and not in others. One place to look is the values associated with a policy because:

> *"Values explain policy and invest all its ordinary practices with meaning. From the open declarations of intent in legislation, to the unspoken preference for one means over another, and on to the measure and evaluations of the actions that result, values are titanic and ubiquitous" (Considine 1994 p. 49).*

Ham & Hill (1993) agree, seeing policy as a web of decisions and actions that allocate values. This is of particular importance when using a framework such as the new public health, which is not only contested, but also out of step with the prevailing values in Australia associated with economic liberalism and its attendant ideas of rolling back the state.

The way policy and values interact is evident in the recent history of South Australia where in the early 1980s the enthusiasm for a social model of health anticipated many of the ideas of the Ottawa Charter. The Health Minister, Dr John Cornwall, enthusiastically led the debate. However in 1988 Dr Cornwall was forced to resign, and at least one health commentator suggested that "In the end, one suspects, he became "too hot to handle" for the Bannon

Government" (Kosky 1992 p. 249). The commentator went on to note that Cornwall's retirement was followed by a hands-off approach and by preoccupation with the need to cut costs (Kosky 1992). By 1989 the Bannon Labour government steadily retreated from modest reform to a language of management and economic rationalism. This did not lend support to alternative views of the world such as those suggested by the Ottawa Charter and the New Public Health (Raftery 1995).

Subsequently, mismanagement of the state government-owned bank by its board led to debts that had to be carried by the South Australian Government. The Labor Government started to cut spending until it was replaced in December 1993 by a Liberal Government which focussed on reducing the size of the public sector, especially the health budget (Baum 1995). The state Liberal Government, and from 1996 its federal counterpart, increasingly adopted economic liberalism and advocated large-scale privatisation of health services. Soon after it was elected the new State Liberal ... Government "promised to cut spending in areas including law enforcement, education and health to avoid state debt spiralling ..." (Australian 1st June 1994). The health budget will be cut by more than $60 million annually, to be achieved in part by a new casemix funding system, competition between hospitals and lowered operating costs (Advertiser 1st June 1994). The Government based its argument on the report of an Audit Commission which was required "... to establish the actual state of South Australia's finances ... (and) ... to compare the financial performance and financial position of the state's public sector with that of other states" (Commission of Audit 1994 p. xxvii).

After some years of the resultant policies involving cutting government health services, the then Director of the Public and Environmental Health Service in the South Australian Health Commission came to the view that the marked decrease in the size of that division meant that it has struggled to maintain sufficient expertise to advise government and the community on environmental matters and to participate in national work on which Australia relies so heavily for guidelines on health matters (Kirke 1995). Privatisation and privileging the market over planning and state intervention are at odds with the values of the new public health, making the task of pursuing healthy public policy a difficult one.[10]

For Cunningham, a former top British civil servant, "policy is rather like an elephant - you recognise it when you see it but cannot easily define it" (Ham & Hill 1993 p. 11).

---

[10] This brief analysis of recent policy changes in South Australia notes the influence on health policy of the progressive introduction of approaches to government underpinned by economic rationalist or market values. This suggests the importance of exploring not only the values behind health policy, but also the values that governments hold about the structure and role of government itself. This is discussed in greater detail in Chapter 5 of this thesis where I analyse case studies of the effect of various levels of policy change on organisations in South Australia concerned with physical activity.

Cunningham's view is apt in light of the plethora of definitions of policy, such as the ten common uses in a much-quoted introduction to policy:

1. A label for a field of activity.
2. An expression of general purpose or desired state of affairs.
3. Specific proposals.
4. Decisions of government.
5. Formal authorisation.
6. Program.
7. Output.
8. Outcome.
9. Theory or model.
10. Process (Hogwood & Gunn 1984).

Policy in general has been defined as "A framework of principles that guides decision-making and action" (Fry & Baum 1992 p. 304). Ham & Hill (1993) summarise the following elements from a number of authors' definitions of policy, including:

- a course of action or inaction rather than specific decisions or actions
- a set of interrelated decisions concerning the selection of goals and the means of achieving them
- a stance which, once articulated, contributes to the context within which future decisions will be made.

Policy has also been defined as "... a long term, continuously used, standing decision by which more specific proposals are judged for acceptability." Policy, according to Blum, stipulates ends, may provide resources, and may spell out specific means to reach these ends. Policy may refer to:

- a very general statement of intentions and objectives
- a past set of actions of government in a particular area
- a specific statement of future intentions
- a set of standing rules that is intended as a guide to action or inaction (Blum 1974 p. 229).

From these definitions, it is apparent that the use of the term *policy* ranges from descriptions or prescriptions of specific actions, through general rules or frameworks, to inaction or non-decisions. One definition that incorporates many uses of the term is that "A policy may

usefully be considered as a course of action or inaction rather than specific decisions or actions" (Heclo 1972) .

Healthy Public policy

Public policy has been defined as "A framework of principles that guides decision-making and activity of governments" (Fry & Baum 1992 p. 308). Normally, the term public policy is used when dealing with those policies for which government is primarily responsible. "It should be recognised, however, that some public policy analysts prefer to use a wider definition, which embraces all policies that affect the public interest" (de Leeuw 1989 p. 17).

When the three terms, *healthy, public* and *policy,* are put together, they signify that the new public health approach contends that the imperative of health policy, and public policy generally, should be the creation of an economy, a society and an environment conducive to the production of good health, as distinct from the production of disease.

> *... Healthy public policies can be found in any sector of government or outside government. ... In practice, this means a close working relationship between Commonwealth, State and local governments, and between government departments, private community organisations whose actions have an impact on health status ... It calls for co-ordination of a wide range of policies ... that is intersectoral collaboration (Palmer & Short 1994 p. 213).*

This is deliberately broader than a focus on health or health services policy because the new public health recognises that government activity beyond health services and the health sector is necessary to protect and promote health (Fry & Baum 1992). *Policies for health* are broader than *health care policies*. They involve a synthesis of power relationships, demographic trends, institutional agendas, community ideologies and economic resources (Brown 1989).

According to the WHO Second International Conference on Health Promotion:

> *"Healthy public policy is characterised by an explicit concern for health and equity in all area of policy and by accountability for health impact" (World Health Organization 1988).*

Healthy public policy has been described as ecological in perspective, multi-sectoral in scope and collaborative and participatory in strategy (Milio 1986). Table 3.1 summarises the complex and demanding task of advocating for healthy public policy (Hancock 1990). Many of the characteristics described in this table are consonant with, indeed derived from, the Ottawa Charter and inform the analysis for physical activity policy in the latter part of this thesis.

Table 3.1 The characteristics of healthy public policy from Hancock (1990)

A long-term view.	We need to learn the lessons of history that changes of the magnitude we are discussing here do not occur swiftly.
Political commitment.	Since public policies require political action, it is clearly essential to this process that political commitment be secured early on and that it be maintained; where it is lost, healthy public policy will also be lost.
Intersectoral processes and structures.	These may consist of new government structures or quasi-formal multisectoral structures involving politicians, bureaucrats, non-government organisations, community members, quasi-autonomous councils or even the use of academic centres as activators.
Public support.	This requires establishing "activist credentials" with the community, being responsive to the community and ensuring good public relations are established and maintained.
A community-driven process.	People will "speak for themselves", undertake community self-reports on health, identify community challenges to health in a variety of ways.
Multifaceted strategies.	There is no simple approach to healthy public policy, and public policies must address the challenges to health in variety of ways.
Credibility	The initiators and activists must be credible, have expertise in the area, and must have staff and resources to develop, propose and implement healthy public policy initiatives.
Win/win solutions.	Rather than establishing confrontations that result in win/lose situations; coalitions are an important way of fashioning win/win solutions.
Organisational culture	Healthy public policy is a dramatic departure from the old way of doing things, and a new "culture" of organisational management and function and of policy-making is necessary.
Metaphor	Health may be a useful metaphor for addressing issues such as social injustice and environmental deterioration.

Approaches to policy formulation and decision making

In order to explore the complexity of the task as summarised in Table 3.1, the chapter now turns to a discussion of approaches to making policy. A number of authors have distinguished between the phases in making of a policy, which, in a circular form, resemble the empirical cycle and include:

- initiation of the policy development process
- adoption of formal policy
- putting in to operation planning mechanisms and instruments to carry out policy
- implementation of policy with those instruments,
- evaluation
- reformulation of the policy (Ham & Hill 1993).

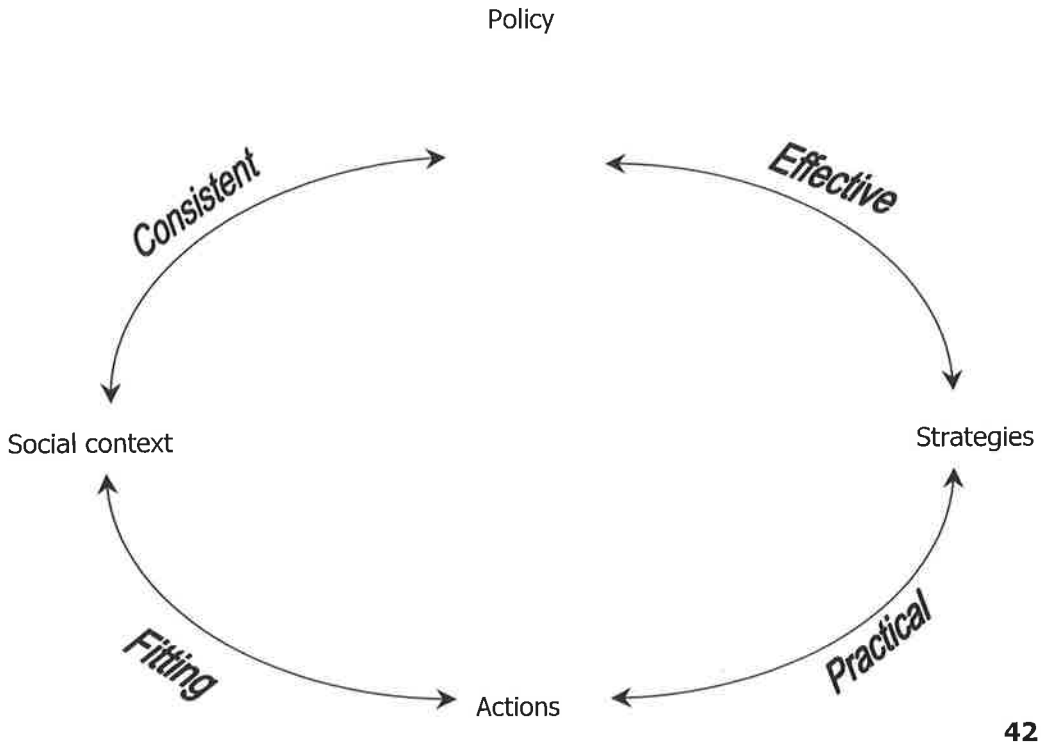
A similar, but more detailed, nine-step framework is:

1. Deciding to decide (issue search or agenda setting)
2. Deciding how to decide (issue filtration)
3. Issue definition
4. Forecasting
5. Setting objectives and priorities
6. Options analysis
7. Policy implementation, monitoring and control
8. Evaluation and review
9. Policy maintenance, succession or termination (Hogwood & Gunn 1984).

Policy and healthy public policy is a complex enterprise, so it is hardly surprising that authors who describe the policy process counsel against regarding it as a linear process with feed-back loops at the end. Most authors reflect the reality that different phases may be intertwined, predetermined, left out or may not in any way be final or causal to each other. Brown (1992) developed the diagram in Figure 3.1 to reflect the subjective, iterative process of policy development under the influence of the social environment.

Figure 3.1 The iterative process of policy development

(from Baum 1998 p. 367)



Decision-making is central to policy analysis because when policy actors make decisions, or decide not to make a decision, they do so within a policy environment (Simon 1945). One way to understand the processes of decision-making is to look at the relationship between rationality and decision-making. There are three generally accepted approaches to describing the decision-making processes that are involved in policy formulation: rational-deductive, incremental and mixed scanning.

Rational-deductive

Early research about decision-making focused on developing comprehensive models of rational choices of courses of action. These alternatives should be conducive to the achievement of the goals and values of the organisation. In reality, it is appreciated that individual and organisational behaviour depart frequently from this ideal type and the model has been modified, using the term bounded rationality to describe how decisions are made between satisfactory alternatives based on experience - rather than the ideal case of examining every possible alternative action. The test of a good policy is whether it maximises the decision-maker's values (Simon 1957).

Incremental

Lindblom developed what came to be known as the *incremental model* by extending Simon's (1957) notion of *bounded rationality* and proposing that decision-making successively limits comparisons of a number of alternatives and simplifies choices to those that differ least from existing policies (Lindblom 1959). While this may ignore the consequences of the entire range of possible policies, Lindblom argued that one chooses among values and among policies at one and the same time. The incremental model says that instead of specifying objectives and assessing what policies would fulfil those objectives, the decision-makers reach decisions about competing policies by assessing the extent to which they most closely result in the attainment of desired objectives. This is also known as *muddling through*. The test of a good policy is whether it secures agreement of the interests involved.

Mixed scanning

Mixed scanning attempts to develop a synthesis of the rational and incremental models. Etzioni (1968) argued that a number of small steps can produce significant change. However, he also argued that incrementalism alone does not lead to accumulation in that the steps may be circular, lead back to where they started or go in many directions and lead nowhere. In his model of mixed scanning he distinguished between fundamental and incremental decisions. The fundamental decisions are important because they set basic directions and provide the context for incremental decisions. Mixed scanning involves a broad review of the field without a detailed exploration of options as suggested by the rational model. The broad

review examines longer-term alternatives from which fundamental decisions can be made. Within this longer-term context, incremental decisions involve more detailed analysis of specific options. Each of the two elements in this model reduces the effects of the shortcomings of the other. Incrementalism tempers some unrealistic aspects of rationalism because it reduces the amount of detail needed in order to make fundamental decisions all the time. Rationalism helps to overcome the conservative momentum in incrementalism by placing the longer term alternatives on the table. Etzioni proposes the mixed scanning model as both a good description of how decisions are often made and a good strategy to guide decision-making (Etzioni 1968). A number of authors argue that the mixed scanning model is the best approach for the development of healthy public policy[11] (de Leeuw 1989; Ziglio 1987).

A long-term view is needed if we are to advocate for healthy public policy, we need to learn the lessons of history that fundamental changes, such as those recommended later in this thesis, do not occur swiftly. If we are to develop these long-term changes we need both a clear strategic vision to guide our activities. We also need to recognise that, in reality, we are going to have to muddle through to our goals. Therefore the concept of goal-directed muddling through (as opposed to aimless muddling through) is a very pragmatic one for planners, community activists and politicians (Hancock 1990).

Agenda setting and management

This chapter now goes on to review the literature in this crucial area of decision-making and the policy agenda. Because, whatever model of policy formulation is adopted, there can be no formal policy without a preceding initiation and adoption phase (Milio 1988). The way that potential and actual policy issues are managed has been likened to the management of an agenda. Therefore, agenda setting

> *"... is a process in which government attempt to prevent policy issues from emerging, to influence the public perception of issues and to shape or delete issues on the current agenda of policy making"(Harding 1985 p. 224).*

The metaphor of an agenda setting process has been used in three areas (Kosicki 1993):

1. Public agenda setting related to mass communication (link between mass media and issue priorities of the public).
2. Institutional analysis in political science.
3. Media agenda setting.

---

[11] In Chapter 8 of the thesis there is an extended discussion of the application of a mixed scanning model.

The metaphor of an agenda, however, does not imply that an issue can be considered seriously in the policy process at the stroke of a pen. The original metaphor of an agenda has been modified to include clearly a reference to the personal concerns of the key people involved with issues:

> *"... the key term of this theoretical metaphor, the agenda, ... in the original study ... both the media agenda and the public agenda consisted of a set of objects, public issues. But ... (writers) ... introduced a new item to the agenda, the agenda of personal concerns, on which politics is but a single entry" (McCombs & Shaw 1993 pp. 62-3).*

When, later in this thesis, I make recommendations about how to influence the policy agenda, I will be mindful of the view that:

> *"... very few episodes of policy making occur in a climate of calm contemplation ... Little is known of the way the policy agenda is formed, how items come to find their priority listing, nor why some things appear to move rapidly up the agenda and into action, while others languish at the edge of attention" (Considine 1994 p. 138).*

Considine (1994, p.138) argues that although policy makers and political scientists agree that issues do suddenly become *hot*, and that this can be traced to the power of elites:

> *"Behind this notion lies another, more fundamental conviction: that through the selection of agenda items, elites control the policy making process in modern societies. Sometimes termed the second face of power, the private setting of public agendas is thought to occur when vested interests act to have their concerns addressed by public officials, and act negatively (or have others act on their behalf) to have dangerous or potentially subversive issues kept off agendas. The definition of the policy alternatives is the supreme instrument of power."*

A recent Australian example from Don Watson, a former senior staff member of the Labour Prime Minister Paul Keating, illustrates how one prime minister understood the policy agenda. Watson provides an insider's perspective on the Labour Government's construction of the policy agenda throughout the 1980s, arguing that it is important to understand that the then government's political and policy successes had come wrapped in a *story*. He described the Prime Minister at the time, Paul Keating, as

> *...the great reformer...the great narrator who made a drama of everything he did and gave everyone a part. Keating loved the language of economics, at least in the classical form in which he had learned it. He loved its clean lines in the way he loved neoclassical design or a Japanese beam, the exquisite meeting of form and function. He talked economics the way others talk about machinery; he had invested the dismal science with images of belts and pulleys and the delight of pulling levers that made inanimate objects obey you" (Watson 1999 p. 10).*

When it came to placing ideas on the policy agenda, success depended upon Keating owning the project.

> *"When Keating owned an idea, he invested it with an almost religious force. Indeed, he would not own it unless he could perceive an almost religious dimension. It needed a core of creativity, pure lines arcing out from it, all connected – what he often called "nice little threads." The thing had to have a meaning at the centre, it had to be of a whole and it had to offer the promise of perfection. He had to be able to draw it on a piece of paper, like a mandala" (Watson 1999 p.11) .*

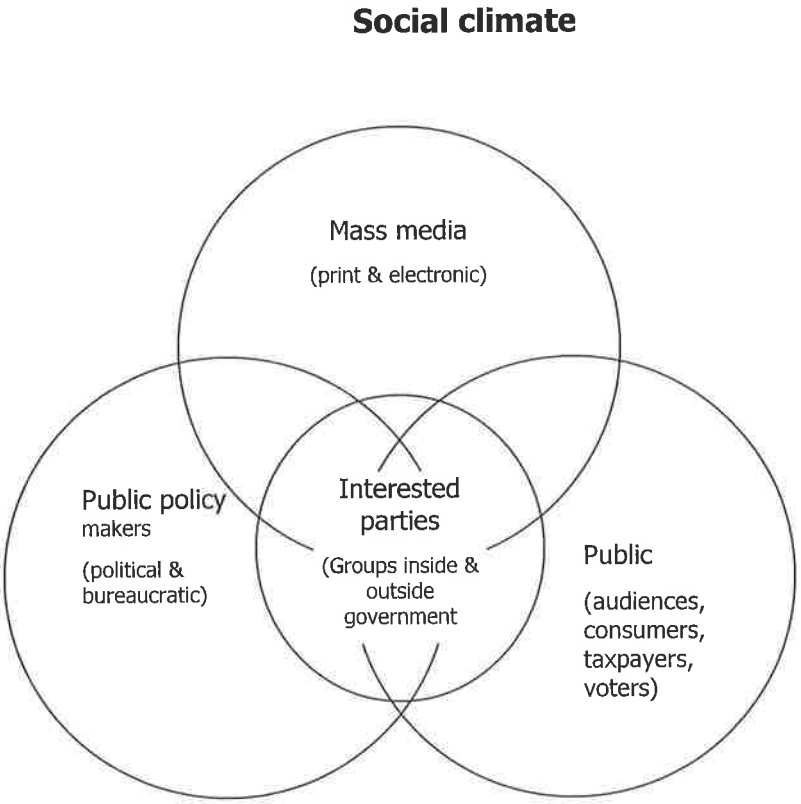
Some years after Keating was defeated, he reflected on his involvement in the debate on whether to have a referendum about Australia becoming a republic in terms which illustrate his version of what the policy literature calls *agenda setting*:

> *the main thing is for a political party to stake out of the ground. A republic was an after-dinner mints and coffee conversation piece until a political party marked out the ground. The current prime minister successfully engineered the defeat of the referendum. Nonetheless the fact that an earlier government marked out the ground will mean that a later government will take up the issue without fear of life of or limb" (Sheridan 2000 p.22).*

Key players in agenda setting

The policy phases of deciding to decide and deciding how to decide (Hogwood & Gunn 1984), or agenda setting, involves the exercise of power, influence and advocacy by a range of people, institutions and interest groups. Figure 3.2 illustrates some of the key players in these processes. The techniques the key players use are discussed in the next section.

Figure 3.2 The scene and the players in the continuous process of policy development
(Milio 1988 p.268)



Key techniques in agenda setting

This section describes some of the specific techniques that are used by the various players in order to manage the policy agenda. Key people in societal institutions who influence the policy agenda are described as institutional policy keepers (Cobb & Elder 1983; Nordlinger 1981). The following table summarises some key techniques that these institutional policy keepers use.

Table 3.2 Agenda management techniques utilised by institutional policy keepers (summarised from Cobb & Elder 1983; Nordlinger 1981)

Symbolism	Provide symbolic rewards, reassurance, or dissuasion
Tokenism	Offer limited action on larger problem
New organisations	Set up new organisations to deal with the problem
Negativism	Argue that problem is beyond governmental resolution/insoluble
Postponement	Set up special committees or inquiries; demand further consultation
Co-option	Co-opt leaders of dissenting organisations
Discredit leaders	Attack leaders of dissenting organisations
Discredit group	Criticise dissenting organisations or affected publics
Redefinition	Redefine issue in a more favourable way
Displacement	Shift focus of controversy to different issue or to policy response to initial issue
Deny legitimacy	Argue that issue is not appropriate or desirable one for government action
Deception	Argue one thing and do another
Retaliation	Threaten opponents, secretly or publicly with retaliation (e.g. withdrawal of government funds or contracts) if they continue agitation
Recognition	Encourage groups whose policies accord with government's. e.g. place them in advisory committees
Exchange	Trade concessions in less important area for cessation of group opposition in more important area
Adjustment of social indicators	Redefine, delay or drop collection of social indicators.

The process by which demands and issues enter or fail to enter the political system or any of its subsystems have been described as *gatekeeping* (Easton 1965.) Gatekeepers are persons, institutions, and groups whose actions determine the success or failure of a demand or issue entering into the system or any of its subsystems. They regulate the overall load on the system by selectively restricting its inputs. Thus, gatekeepers are key participants in the continuous process of agenda-building: *"Demands can be regulated by various reduction processes ... Specific procedures included here are ... intrasystem gate-keeping procedures and the requirement that general systems demands be converted into specific issues for purposes of political processing" (Young 1968 p. 142).*

Milio describes policy keepers as "... the entity that by its own initiative or by mandate holds a specific, articulated policy at any given time, and moves the policy at a pace conditioned by the entity's interest during any phase of policy-making ..." (Milio 1988 p. 142) The entity identified as policy-keeper may thus change as policy-making progresses. Some agency or *policy keeper*, sets up fundamental issues and tries to translate these into socially relevant ones through rounds of consultation with interest groups (Milio 1988). This created the involvement of more and more interest groups, the issue expands and is then presented to governments as demands for comprehensive policy changes. Governments then press for the establishment of concrete policies. Interest groups are

> *"... any organised groups or parts of groups whose resources, authority, status, influence, or survival is affected by a policy. Such groups include political parties; parliamentary committees; ministerial offices and bureaucratic units; commercial enterprises; and voluntary, professional, religious, communications, or minority organisations (Milio 1988 p. 142).*

Agenda-Building Theory

It has already been argued that there are many people, interests and processes competing to be heard in the process of developing policy and that the study of how some are heard and others are not heard has been likened to competing to place items on an agenda. A classic work (Cobb & Elder 1983) was written in order to provide research guidance and is predicated on four observations that are made, but not developed, by democratic theorists. These are:

1. The distribution of influence and access in any system has inherent biases, therefore groups are either favoured or disadvantaged by societal and institutional systems.
2. The range of issues and decisional alternatives that will be considered by a polity is limited by two factors. The first is that the processing and attention capabilities of any organisation are limited. The second is that all forms of political organisation have a bias in favour of the exploitation of some types of conflict and the suppression of others

because organisation is the mobilisation of bias. Some issues are organised into politics while others are organised out.

3. The bias of a political system reflects and legitimises the prevailing balance of power among organised groups, so the range of issues considered will represent the interests of previously legitimised political forces.
4. Finally, and importantly, pre-political processes often play the most critical role in determining what issues and alternatives are to be considered by the policy and the probable choices that will be made (Cobb & Elder 1983 pp. 10-12).

These four points give rise to questions about the elaborate processes whereby issues do or do not become the focus of interest and concern within the polity. This is known as agenda-building and Table 3.3 shows the three models to describe these processes: outside initiative, inside initiative and mobilisation (Cobb & Elder 1983).

Table 3.3 Models of agenda building adapted from Cobb & Ray (1983)

	Initiation	Specification	Expansion	Entrance
Outside initiative	By outside group	General grievances to specific demands	Expand issue to other groups	From public to formal agenda
Mobilization	Decision makers put on formal agenda to get public support	Few concrete details	Implementation depends on public acceptance	From formal to public agenda
Inside access	Decision makers put on formal agenda avoiding expansion to the public agenda	Concrete proposals	Limited to decision makers who avoid issue expansion	By power brokers

Outside initiative

In this model, the central question is "how does legitimisation of a social problem to a policy problem take place?" The basic notion is that there is a need for such a policy and, as a result of sufficient public and interest group pressure, the issue will move from the systemic or societal agenda will find a place on the institutional agenda. This *institutional agenda* comprises a general set of political controversies that will be viewed at any time as falling within the range of legitimate concerns meriting the attention of the polity, or a particular

institutional decision-making body (Cobb & Elder 1983). Therefore, such an issue has high probability of being addressed by formal policy (although non-decision may be policy as well).

In South Australia, a senior public health official uses the combination of hazard and outrage to work out how issues gain the attention of public health authorities. Issues may have, according to public health experts, low or high hazards to health, but they get on the agenda if there is high public outrage. For example, experts may describe as low the hazard from polluted soil in a tannery to be redeveloped for residential purposes. However, a high level of public outrage will force the public health authority to become involved earlier rather than later (Kirke 1995).

Inside Initiative

The inside initiative model was proposed in response to criticism that the original, outside initiative, model was not appropriate under all circumstances. According to the inside initiative model, it is insiders who more or less independently place issues on the institutional agenda. These insiders are a government agency or a group that has easy access to the policy makers and political decision-makers. To protect the interests to be served by the new policy, the insiders try not to expand range of issue conflict, try to coalesce with groups with similar interests therefore. In other words issue expansion is limited and controlled by homogenous interest groups. A key feature is that undesirable expansion to attentive and general publics will hinder formalisation of the issue into policy because the interests at stake are too narrow to attract a wide audience that would be required in an outside initiative model. This model therefore provides policy makers with very concrete proposals for policy and "... will occur with greatest frequency in societies characterised by high concentration of wealth and status" (Cobb & Elder 1983 p. 63).

In another example from South Australia, the combination of hazard and outrage is used to work out how issues gain the attention of public health authorities. One example is older public health acts which, although designed to protect the public's health, pay small heed to community views (Kirke 1995).

Mobilisation

The third, mobilisation, model is an extension of the inside –initiative model. Here, decision-making is already finalised but policy makers seek support in the public to realise implementation. There are also elements of the outside-initiative model in that public support is needed for effective implementation of the policy. Policy is considered formal as soon as political leaders make an explicit statement on the issue. Leaders therefore seek support when the implementation of policy is dependent on voluntary adherence or change in attitude by specific groups in society. As a result, there can be expansion of the issue as it becomes known to groups previously unaware of the issue. The initial formal statement can thus be a

starting point for public debate and discussion and pressure to induce further sharpening of the demand for concreteness, which of course, may well be an objective of the initial decision-maker.

According to de Leeuw (1989), in the Netherlands the mobilisation model is an appropriate tool to study development of health policies because there are many contestants in the definition of the issues and generally the government has the legitimacy to deal with health issues because the constitution makes the government responsible for protection of public health. Further, there are very intricate interconnections in the health system, giving rise to the influence of powerful interest groups. The nature of healthy public policy, especially the way it involves intersectoral approaches, mixes of interventions and participation of interest groups and communities, requires negotiation rather than direction (ie mobilisation rather than inside initiative) and consultation rather than bottom up pressure (ie mobilisation rather than outside initiative).

For the new public health to be effective, it is argued that participation in making policy by all interest groups is of utmost importance for the establishment of healthy public policy (Milio 1988) and that the mobilisation model has the highest potential for adequate communication between interest groups and decision makers (de Leeuw 1989).

A South Australian example of the mobilisation model is reflected by the use of the combination of hazard and outrage to work out how issues gain the attention of public health authorities. In the example of passive smoking, the role of experts has been to raise public outrage about an issue that they once perceived as being low hazard (Kirke 1995). A mobilisation model also fits with the mixed scanning approach to policy formulation described earlier.

Policy research

Types of research

Policy analysis as a specialist academic discipline grew after the second world war as the state was growing (Lasswell 1951) and became more popular as a result of concerns over the adequacy of mechanisms to evaluate the effectiveness of the major programs of social change in America under Presidents Kennedy and Johnson (Wildavsky 1985). Policy analysis developed from an evaluation system at the organisational level to a discipline concerned with detailed analysis of the policy process, concentrating on " the analysis of the determinants, characteristics and implications of public policies and programs" (Poister 1979 p. 5). Subsequently a distinction was made between the analysis *of policy* and analysis *for policy*. The analysis *of policy* is an academic activity concerned with advancing understanding

while *analysis for policy* is an activity concerned with contributing to the solution of social problems (Gordon, Lewis & Young 1977). A further distinction has been made between seven varieties of policy analysis (Hogwood & Gunn 1984). Three of the first group are classified as *policy studies* which seek to increase the knowledge of policy and the policy process. The second group is classified as *policy analysis* that seeks to increase knowledge for an effective policy process. Information for policy-making is the collection and analysis of data with the specific purpose of aiding a policy decision or providing advice on the implications of alternative policies. This analysis differs from studies of the content of policy in that it is designed explicitly to contribute to policy-making.

Process advocacy is concerned not only with understanding the policy-making process, but also how to change it. Often this involves a comparison and contrast of different approaches, procedures and techniques in the policy process. Policy advocacy involves the use of analysis to argue for a particular policy. A distinction has been made between the analyst as a political actor and the political actor as analyst.

Analysis for policy

Clearly, healthy public policy is a key strategy of the new public health and, in relation to physical activity, it seeks to ensure that policies from a range of sectors combine to so that settings make the choice to build moderate activity into life an easy choice. Healthy Cities and healthy settings projects therefore become examples and sources of information for the research in this thesis.

My analysis of the policy literature suggests that the most appropriate focus for this thesis is analysis *for policy* which is also called *policy analysis*. This combines analysis of information for policy-making, process and policy advocacy (Hogwood & Gunn 1984). In this context, it is argued that the most appropriate approach to decision making is mixed scanning, while the most appropriate approach to agenda management is the mobilisation model.

Analysis for policy at the local level

It has been argued that healthy public policy is a complex concept. In practice, then, the policy agenda can be so crowded that (in the absence of crises, outrage or some other way of capturing the interest of key players) it is difficult to navigate through the myriad of barriers to get any item on the policy agenda. This is particularly applicable when considering the complex and contested ideas of healthy public policy. It has been argued that there are a number of characteristics of the local level that make the development of healthy public policy easier[12] (Hancock 1990):

---

[12] In this thesis, the research is situated at the local level in an endeavour to benefit from these advantages.

- at the local level the relatively high degree of proximity and accessibility of different institutions and actors allows a degree of local intimacy; it is easier to use existing social networks and the more human scale of the community (as opposed to regional, national or international levels of action) allows far more personal contact.
- policy-makers at the local level live close to where they work and their decisions affect themselves, their family, friends and neighbours directly; there is thus a much greater possibility of close contact between those affected by policy and those making it.
- the smaller bureaucracies at the local level may at times make the response times faster and feedback easier, and may permit greater sensitivity to local needs and special circumstances.
- the close link between community and policy-maker makes for more tangible and more effective community advocacy and community action to influence policy; the results may be more readily and more immediately apparent.

Conclusion

This chapter has reviewed definitions of policy, approaches to policy formulation and types of policy research. The literature review suggests strongly that policy development is not a detached, rational and technical process. Rather it is invested with politics and values.

In relation to my research topic, the conclusions about the link between policy and values clearly suggests that the project of introducing a new public health perspective to the promotion of physical activity is likely to encounter conflicts in values at various levels. There may be conflict with other approaches to the promotion of physical activity which are based on different values. There are also likely to be conflicts between the individualistic discourses of economic rationalism and public health's emphasis on structural interventions, collective action, participation and equity. From the literature review in this chapter, it is apparent that such conflicts should not be seen as aberrations in the policy process, rather, they represent the expected debates and complexities in such a policy endeavour.

It is also important to seek to understand the status of physical activity within policy debates in the health sector, given the observation that it is not high on that sector's agenda.

Chapter 4
Methodology and methods

The aim of the chapter is to set out how I developed the research questions, designed the methodology and research methods and conducted each of the four studies.

The chapter starts by outlining how I developed the methodology. Then there is a formal statement of research methodology, followed by a detailed description of the four studies, including a description of the sample and methods of data analysis.[13] I also outline my role in each of the collaborative studies and how all the studies fit into the overall research plan.

Development of the methodology

Social researchers "... often express bewilderment at the array of methodologies and methods laid out before their gaze. These methodologies are not usually laid out in a highly organised fashion and may appear more as a maze than as pathways to orderly research (Crotty 1998 p.1)." In response to this, Crotty (1998) proposes that researchers work systematically through a process of defining and understanding the terms they use, in order to prepare scaffolding:

> *"... to provide researchers with a sense of stability and direction as they go on to do their own building; that is, as they move towards understanding and expounding the research process after their own fashion and in forms that suit their particular research purposes"(Crotty 1998 p. 2) .*

In my case, I was struck by the way in which different authors used such different terminologies, hierarchies of terms and conceptual schema to explain their approach to research. Certainly Crotty (1998) discusses Lévi-Strauss's depiction of the researcher as *bricoleur,* someone who makes something new out of a range of materials that had previously produced something different. However, an effective way even for a bricoleur to assemble a scaffold is to start with a coherent base, which is why I focussed on the ideas of two people with whom I worked and whose work was used widely internationally. The *bricoleur*, a makeshift artisan, uses bits and pieces that once were part of a certain whole but now reconceives them as part of a new whole. Crotty (1998) contrasts this meaning with Denzin & Lincoln's (1994) interpretation of the *bricoleur* as "a Jack of all trades, or a kind of do-it-yourself person." In this project I adopt the position that it is more appropriate to strive to be a *bricoleur as artisan* than a *bricoleur as odd job person.*

---

[13] These details are provided in this chapter to enable the remainder of the thesis to be structured around themes and research questions, rather than by sequentially describing and analysing each study.

The artisan is surely assisted by knowing their tools and understanding their capabilities and limitations in the creation of a new whole. This requires critical reflection on one's own research assumptions and practice and an acknowledgment of how and why they developed as they did. Therefore the aim of this chapter is to set out a consolidated description of, and rationale for, my approach to the research in this thesis and the arguments and conclusions that follow.

Research in the new public health is not a linear process that starts with an hypothesis, applies an accepted research plan and derives conclusions that can be generalised to a greater or lesser extent. The non-linear nature of such research is often reflected in diagrams dominated by circular or corkscrew forms, or, in tables adorned by arrows flying in all directions. As Baum says:

> *Most published research presents a sanitised view of the research process. A newcomer to research would gain the impression from published accounts that research was generally a smooth, logical process in which little goes wrong and which is immune from the vagaries and politics of everyday life. In practice it is rare for such immunity to operate. Public health research, like most other, is subject to the setting in which it is conducted and the researchers who conduct it. Social scientists have some tradition of reflection in their research practice and opening up their processes to take an honest look at them" (Baum 1998 p. 112).*

In this chapter I will discuss the way research is designed, starting from my research context, tracing my approach to the research, outlining the methodology and finally describes in detail the research methods and the four studies.

My research context

My research in this thesis, like all research, is influenced by the context in which I work and conduct research. In my case, two crucial elements of that context have been my colleagues Professor Fran Baum and the late Dr Michael Crotty from the Department of Public Health at Flinders University. We were foundation members of the Department, Fran Baum is Professor of Public Health and Dr Michael Crotty was a highly respected teacher and scholar who died in 1998. With Fran Baum and Michael Crotty I have conducted research, designed and taught graduate education programs for the new public health and debated the nature of research itself. Naturally, then, these two people have influenced the research reported in this thesis in a general way. Moreover, their participation in and comments on formal presentations that I have made about my research have specifically influenced my research. Yet, they write about the research process in ways which, while compatible, reveal shades of differences in terminology and approach. In this chapter I lay out my understanding of the way I have

processed their work and developed my own approach, highlighting where necessary my debates about the approaches of Baum and Crotty.

The importance of starting with the research question

According to Crotty we typically start with a real life issue that needs to be addressed, a problem that needs to be solved, a question that needs to be answered. We plan our research in terms of that issue or problem or question by asking:

1. What are the issues, problems or questions implicit in the question we start with?
2. What is the aim and what are the objectives of the research?
3. What strategy seems likely to provide what we're looking for?
4. What does that strategy direct us to do to achieve our aims and objectives?

In this way our research question incorporating the purposes of our research leads us to methodology and methods (Crotty 1998).

Research methods as techniques and procedures

Research methods are

> *"..the concrete techniques or procedures we plan to use. There will be certain activities we engage in so as to gather and analyse our data. These activities are our research method."(Crotty 1998 p.6) .*

Baum (1998) and Crotty (1998) agree that the debate about the desirability of different research methods is underpinned by beliefs about the nature of knowledge and understanding. Both stress that the distinction between qualitative and quantitative research is at the level of methods, not at the level of fundamental beliefs. For researchers, this reinforces the necessity to start with the research question then select the appropriate methods. Their view of the world does not accept a rigid quantitative/qualitative divide, but sees both as methods that can productively be used side by side within a defined understanding of particular beliefs and knowledge about the world.

According to Baum (1998), quantitative and qualitative methods have very different strengths. An example of the complementary use of quantitative and qualitative methods is the community wide program to reduce the incidence of cardio-vascular disease in North Karelia in central Finland. The researchers recognised that classic epidemiological studies were insufficient to mobilise community support for the program or bring about the social changes necessary to achieve behaviour change. To do this, methods from the behavioural and social sciences were necessary (Baum 1998).

Applied to this thesis, quantitative research is essential for describing the extent and patterns of physical activity and the factors related to it within a community. Qualitative research, on the other hand can describe the meaning of physical activity and factors related to it. Qualitative methods are also ideal for another issue explored in this thesis, the insight into lay knowledge of health and physical activity.

Research methodology as a plan of action

Research methodology is

> *"... our strategy or plan of action. This is the research design that shapes our choice and use of particular methods and links them to the desired outcomes" (Crotty 1998 p.7).*

Crotty (1998 pp. 13-14) argues that

> *"... it is as if we create a methodology for ourselves, as if the focus of our research leads us to devise our own way of proceeding that allows us to achieve our purposes. In a very real sense, every piece of research is unique and calls for a unique methodology. We, as the researcher must develop it ... A study of how other people have gone about the task of human inquiry serves us well and is surely indispensable because attention to recognised research designs and their theoretical underpinnings exercises a formative influence upon us. In the process, we may draw on several methodologies and mould them into a way of proceeding that achieves our outcomes."*

Crotty's (1998) writing uses the term *methodology* in the singular when referring to a research plan or strategy containing a variety of what he calls *methods.* Baum's (1998) writing uses the terms *methods* and *methodologies* predominantly as synonyms and does not spend time highlighting and elucidating differences between the two. Nevertheless, despite their different terminology, they clearly agree about what for Baum is *methodological pluralism* and for Crotty is a *unique methodology*; that is that the conduct of research can and should combine a range of research strategies. For Crotty and Baum this is not akin to a smorgasbord comprising random or contradictory ingredients. On the contrary, *methodological pluralism* or a *unique methodology* is more of a recipe that sets standards for the quality of research and, particularly for Crotty, proscribes combinations of ingredients if they are mutually exclusive and incompatible. The search for possible incompatibility leads the researcher to an examination of real differences in beliefs about the nature of knowledge and understanding that are discussed in the next section.

The importance of underlying beliefs and understandings

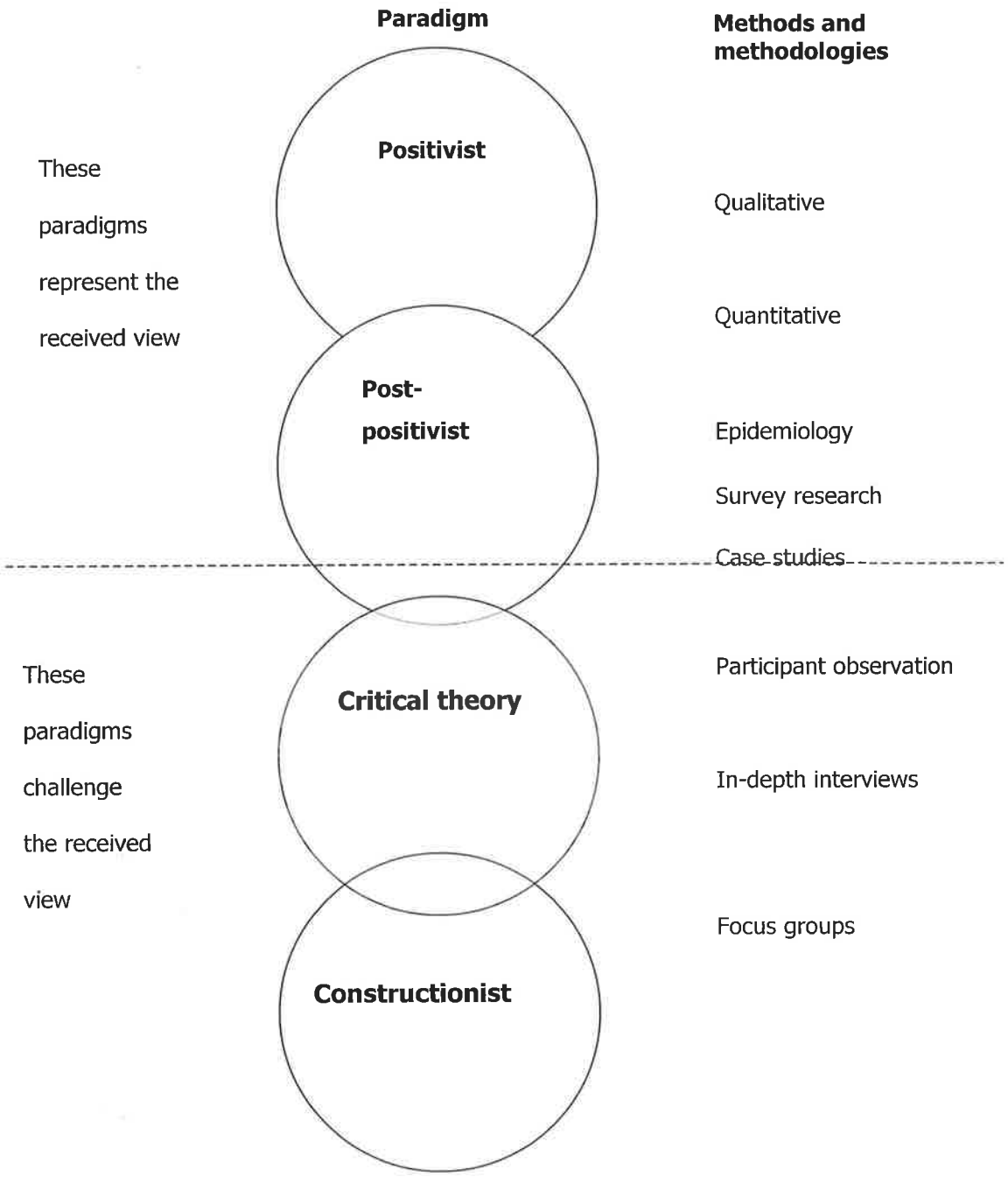
In Chapter Two I described medical, behavioural and socio-environmental models of physical activity. When planning research projects, it is important that we are aware of the theoretical and epistemological underpinnings to avoid the serious risk of conducting flawed and superficial research. It is therefore important to recognise how these models of physical activity are based on underlying beliefs and understandings about the nature of knowledge and how they influence the way we do research. This illustrates why, according to Crotty (1998), we cannot stop at methods and methodologies if we want observers of our research to recognise it as sound research. Crotty sends us to our theoretical perspective and epistemology and calls upon us to expound them incisively. I will do this by comparing and contrasting how Baum and Crotty go about the task of expounding the theoretical perspective.

Baum (1998 p. 108) locates differences between beliefs about the nature of knowledge and understanding using the terminology of *paradigms*. The first two represent the received view while the second two challenge it.

> ***Positivism*** *aims for definition of objective truths and reduces all relationships to a statistical level.*
>
> ***Post positivism*** *retains the basic beliefs of positivism but accepts some of the criticisms of the search for absolute truth and seeks hypothesis falsification rather than verification.*
>
> ***Critical theory*** *focuses on critiquing and understanding inequities in society, seeking to change them as a result of research.*
>
> ***Constructivism*** *is the joint creation of knowledge between the researcher and the researched. In this view there is no static truth, but instead multiple and shifting realities.*

For Baum (1998), while researchers move between all four paradigms, researchers in the new public health are more likely to be comfortable with the *critical theory* paradigm because public health aims not just to understand, but to use that understanding to bring about change. My summary of Baum's (1998) approach to research is set out in Figure 4.1.

Figure 4.1 The research process according to Fran Baum (1998)



Arrows can be drawn in all directions.

The critical theory paradigm is most comfortable for research in the new public health.

Crotty locates the real differences in beliefs about the nature of knowledge and understanding at the level of the distinction he draws between theoretical perspective and epistemology. Theoretical perspective is

> *"...the philosophical stance that lies behind the chosen methodology. We attempt to explain how it provides the context for the process and grounds its logic and criteria" (Crotty 1998 p.7).*

Epistemology is

> *"inherent in the theoretical perspective and therefore in the methodology we have chosen. The theoretical perspective we have described is a way of looking at the world and making sense of it. It involves knowledge, therefore, and embodies a certain understanding of what is entailed in knowing, that is, how we know what we know. Epistemology deals with the nature of knowledge, its possibility, scope and general basis" (Crotty 1998 p. 8).*

Crotty goes on to make two further distinctions of interest here. The first, at the epistemological level, is between *constructivism* and *constructionism*. He reserves the term *constructivism* for epistemological considerations focusing on the meaning-making activity of the individual mind. He uses the term *constructionism*, or *social constructionism,* where the focus includes the collective generation and transmission of meaning. The distinction is important because *constructivism* in this sense points up the unique experience of each of us and suggests that each one's way of making sense of the world is equally as valid and worthy of respect as any other, thereby tending to inhibit any hint of a critical spirit. On the other hand, *social constructionism* emphasises the hold culture has on us as it shapes the way we see things and gives us a quite definite view of the world. On these terms, it can be said that *constructivism* tends to resist the critical spirit, while *social constructionism* tends to foster it.

Having drawn the distinction between the two, Crotty argues that the epistemology of *social constructionism* is more likely to lead to a theoretical perspective in the critical inquiry tradition, encountered today most markedly in what we know as critical theory. Crotty argues that critical theory is suspicious of the constructive meanings that culture has bequeathed to us. It holds that particular sets of meanings have come into being as a result of our social existence and exist to serve hegemonic interests, support particular power structures, resist moves towards greater equity, and harbours oppression, manipulation and other modes of injustice. My summary of Michael Crotty's (1998) approach to research is set out in Figure 4.2.

Crotty and Baum agree that research in the new public health may well combine what Baum calls the *paradigms* of critical theory and constructivism and what Crotty calls the *theoretical perspective* of critical inquiry and the epistemology of social constructionism. As I have

suggested previously, the important point when designing research is to be aware of the underlying epistemological and theoretical perspectives and make a choice of combinations of paradigms that informs research methods that answer the research questions. aims for Alongside this agreement lies a different logic and classification system. Baum sees the researcher choosing between these two, independent, paradigms. Crotty sees the researcher moving logically either from *epistemology* to a congruent *theoretical perspective* or vice versa. There is a further difference. Baum recognises that public health researchers shift between all four *paradigms*, while acknowledging that they will be more comfortable with the two that challenge the received view: critical theory and constructivism.

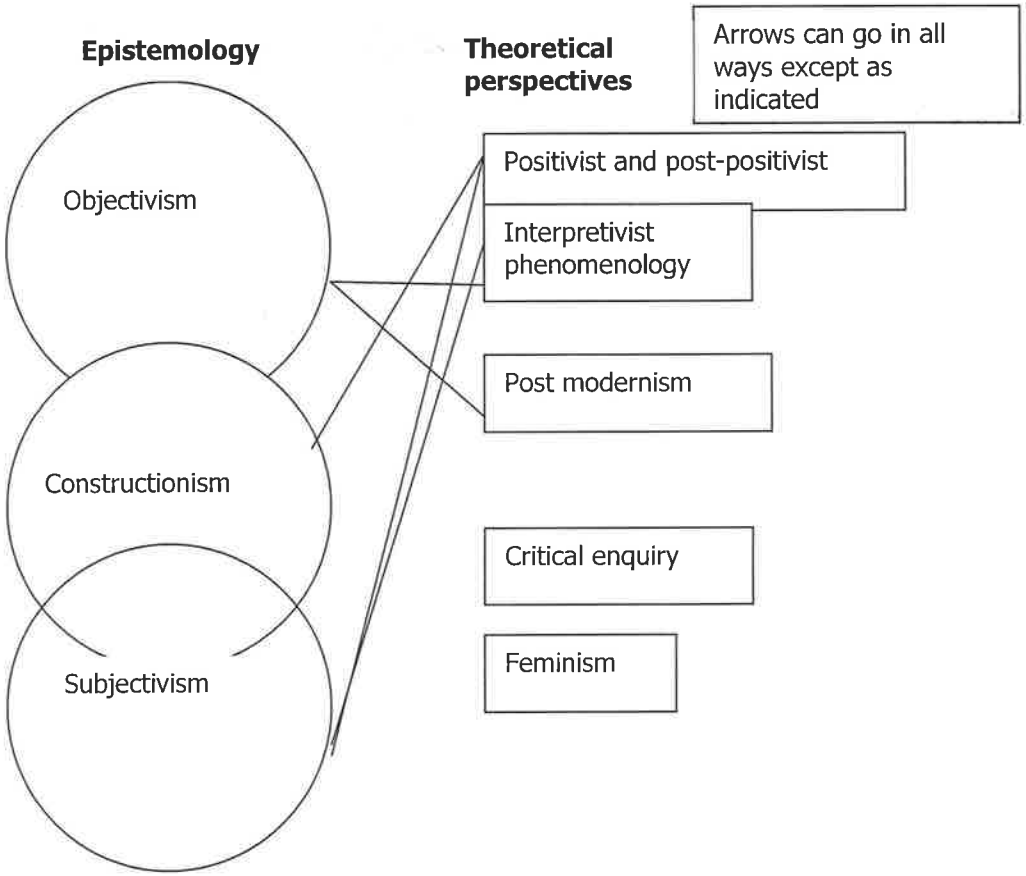
Figure 4.2 shows how Crotty limits the ability of the researcher to shift in two ways. This aspect of Crotty's work exemplifies his concern with distinguishing between epistemology and theoretical perspective.

1. The first limit requires an elaboration on the discussion above regarding the shift between theoretical perspectives and epistemologies that are congruent with each other. Crotty says that the three epistemologies are not watertight and that arrows can be drawn in many directions. However, he rules out drawing arrows:

- from the *epistemologies* of constructionism or subjectivism to the *theoretical perspectives* of positivism, and post-positivism.
- from the *epistemologies* of objectivism or subjectivism to the *theoretical perspective* of phenomenology;
- from the *epistemology* of objectivism to the *theoretical perspective* of post-modernism.

2. It would be problematic to combine epistemologies by, for example, claiming to be at once *objectivist* and *constructionist* (or *subjectivist*) - despite calls in the postmodern world to question cherished antinomies and to embrace "fuzzy logic" with its principle of contradiction. To avoid what Crotty calls discomfort, he says we should be consistently *objectivist* or consistently *constructionist* (or *subjectivist*). Crotty does acknowledge that a researcher can "...move towards subjectivism rather than constructionism..." (p.16), although 'Constructionism is not subjectivism." (p. 52)

Figure 4.2 The research process according to Michael Crotty (1998)



Methodology

Experimental research

Survey research

Ethnography

Phenomenological research

Grounded theory

Heuristic inquiry

Action research

Discourse analysis

Feminist standpoint research

Methods

Sampling

Measurement and scaling

Questionnaire

Observation

- Participant
- Non-participant

Interview

Focus group

Case study

Life history

Narrative

Visual ethnographic methods

Statistical analysis

Data reduction

Theme identification

Comparative analysis

Cognitive mapping

Developing a research methodology

The research process

As I have stated, my research approach has been informed by the works of Baum (1998) and Crotty (1998). When I designed my methodology, I took care to consider how their approaches reflect their intellectual and professional interests and to consider what approach would best suit my interests in this project.

For Crotty, research involved a detailed analysis of historical and current texts, the graduate level teaching on the theory behind qualitative research and the supervision of students who were enthused to undertake qualitative research. Crotty's writing reflects a passion for the genesis and development of ideas, applying the tools of intellectual analysis to texts. His research students would frequently explore a challenging research question that involved sophisticated exploration of epistemology and methodology and detailed examination of the findings. With his guidance, they would debate finer questions of methodology. At the end of the last section there is a good example of Crotty's concern to distinguish between epistemology and theoretical perspective.

For Baum, research involves work on competitively awarded research grants. These projects are frequently large, collaborative, and apply multiple methods to multi-faceted and complex problems. Baum's writing reflects a passion for applied research that promotes social change, developing and applying research methods to evaluate and advance community based action, frequently involving contested or problematic health and health service research problems.

It is thus unsurprising that Crotty's writing is characterised by attention to the elegant theoretical and epistemological points that research can elucidate while Baum's is characterised by attention to the changes to which research can contribute. For me, Crotty's approach is most useful when the research question calls for the rigorous application of one or two methods; which is not the direction of my research. On the other hand, I found that Baum's approach was more useful to my purpose of selecting rigorous combinations of methods for a series of linked projects or a multi-methodological approach.

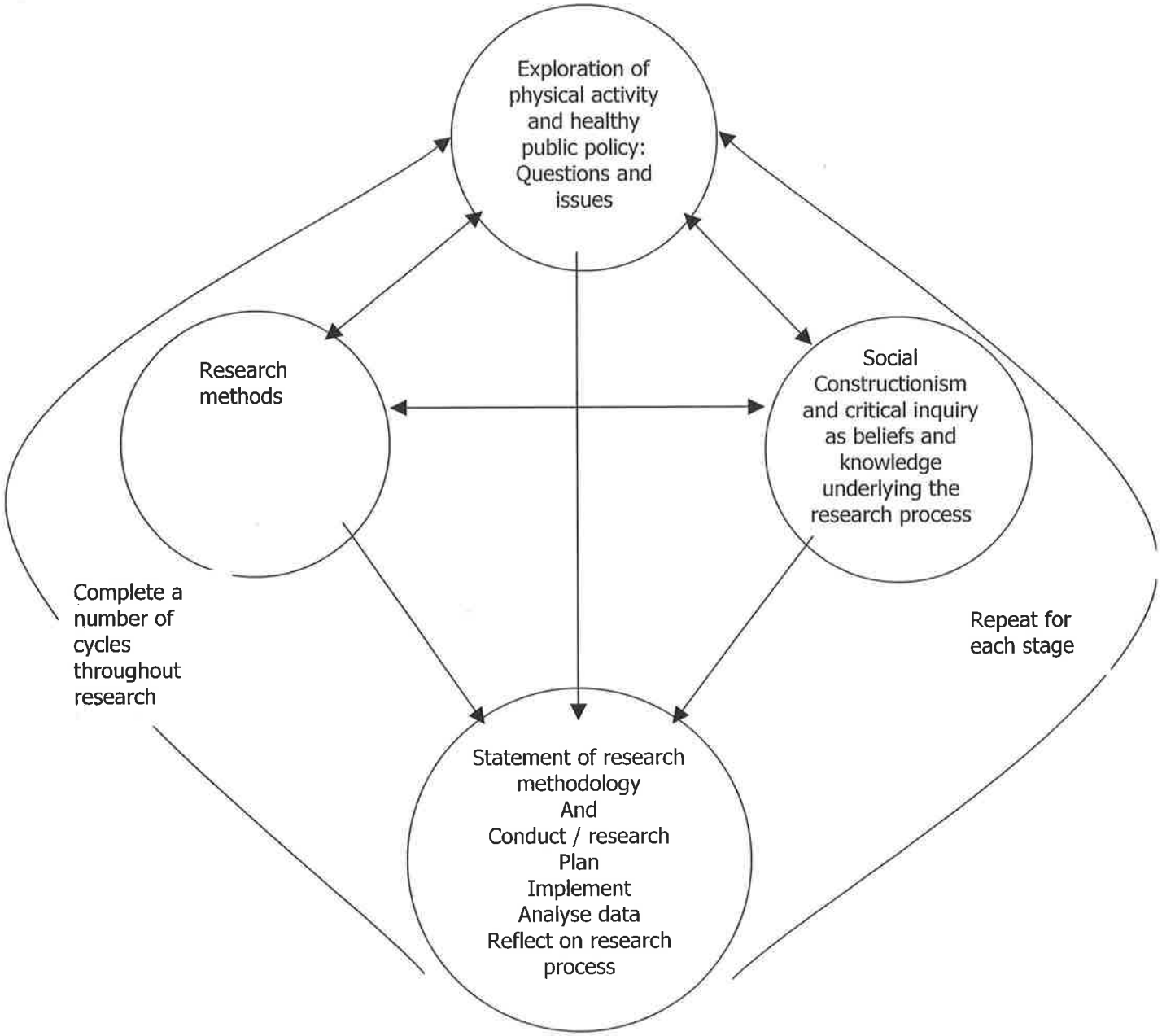
My research task in this thesis is to explore the issue of physical activity in order to understand how to advocate for healthy public policy. I have therefore taken from Baum's work the more pragmatic, applied focus that provides fewer guidelines and caveats for researchers than does Crotty; provided of course that they are rigorous and ethical. From Crotty's work I have taken a more detailed discussion of the theoretical perspectives I use.

The detail of my research process is set out in Figure 4.3 below. It takes from Crotty the emphasis on detailed exploration of the research question and issues that arise from it. From both Crotty and Baum I apply a mixture of methods. From both Baum and Crotty I accept

that the mixture of ingredients is not as in a smorgasbord, but as in an imaginative recipe guided by an appreciation of the beliefs and knowledge underlying the research process; what Baum (1998) describes as a *paradigm*, in my case informed by *constructionism* and *critical inquiry.* From Crotty I differentiate between the terms *research methodology and research method*, reserving methodology (in the singular) to describe the research plan or strategy.

The top part of the diagram illustrates the way exploration of the research question is simultaneously informed by considering research methods and underlying beliefs and understandings about research. My research, as will be described in the formal statement of methodology, comprises a number of linked projects over some years. Therefore the bottom part illustrates the cyclical nature of the research as it considers each new project and takes into account the changes that flow from the implementation of research plans and the analyses of data. The diagram reflects the iterative and cyclical nature of the research process over time and projects.

Figure 4.3 The research process in this thesis



More about the research question

In Chapters Two and Three my review of the new public health notes its emphasis on policy as a valuable tool for a socio-environmental approach to the promotion of physical activity. In order to develop questions around my research purpose with the aim of informing the methodology, I return to the Second International Health Promotion Conference, held in Adelaide in 1988, where the then Director-General of the World Health Organisation consolidated the focus on policy by explaining that the main aim of healthy public policy is to create the preconditions for healthy living through:

- closing the health gap between social groups and between nations
- broadening the choices of people to make the healthier choices the easier and most possible
- ensuring supportive social environments (World Health Organization 1988).

When I consider these three preconditions for health and use them to inform my thinking about physical activity, I adapt the broad questions above and add questions about ordinary peoples' views about physical activity as follows:

what are the physical activity gaps between social groups and how does this gap relate to health and the other benefits of physical activity?

what are the constraints on choices and what needs to be done to make the choices of people to increase moderate physical activity easier? How do ordinary people theorise about constraints on choices?

what is the role of the social environment in relation to moderate physical activity choices and what needs to be done to ensure supportive social environments? How do ordinary people theorise about supportive social environments?

I also need to take into account the place of what Crotty (1988) describes as truth claims and values as I refine the research questions. The initial research question immediately implies some measurement of patterns of physical activity, which in turn directs me to epidemiology and survey methods. However, I need to consider epidemiology and survey methods within the paradigm that I have adopted and, as I note in the discussion of Figure 4.3 earlier in this chapter, is informed by *social constructionism* and *critical inquiry*. Crotty (1998) provides an example of the difference epistemology makes to a piece of research when he notes how different quantitative research is when it is informed by *constructionist* epistemology (especially as we move towards *subjectivism*). The epistemology makes a difference to the truth claims; while no longer is there talk of objectivity, validity or generalisability quantitative research makes a valuable contribution - even to a study of the farthest reaches of human being.

The quantitative methods will provide some data that I will interpret in their own right by making comparisons with other studies, and other data that serve to inform the design and analysis of the complementary qualitative studies. In the latter case, I delay more detailed analysis of the quantitative data until it is considered alongside the qualitative data. However, from Crotty (1998), in such a case I must then ask the question "how will the findings be useful?"

To start my answer to this important question, I return to the discussion in Chapter Two of the potential pitfalls of a web model of health. There, I referred to the work of Sylvia Tesh, who argues that the question must make values transparent:

> *"But consider another kind of question. How can the lives of the diseased poor be made more like the lives of the healthy rich? Such a question has the advantage of implying a fundamental cause of disease. Among the interacting multiple causes, it recognises the primacy of poverty. By focusing attention on the most important issue, it helps to create a conceptual hierarchy of causes out of the confusing multifactorial web. The question therefore helps us to design the disease prevention policies with the most impact on public health" (Tesh, Tuohy, Christoffel, Hancock, Norsigian, Nightingale & Robertson 1988 p. 258).*

The most obvious way to use Tesh et al's recommendation would be to rephrase my research question so that it focuses directly on the factors of fundamental interest, for example:

> *"How can the lives of those who find it difficult to build moderate physical activity into their day be more like the lives of those who do not find it difficult?"*

One potential disadvantage of this simple change, however, is that the emphasis on people building physical activity into their lives may suggest more of a focus on individuals rather than individuals as influenced by their settings. A more fundamental difficulty, however, lies in the lack of a parallel in the physical activity literature to the consensus in the health literature on the "primacy of poverty and inequality" argument. In the face of this difficulty, I consider the nature of supportive environments by building on what Ilona Kickbush, who, when Director of the Division of Health Promotion, Education and Communication in the World Health Organisation, described as perhaps the most famous quotation from the Ottawa Charter: (Kickbush 1996, 15 November p. 9)

> *"health is created and lived by people within the settings of their everyday life: where they learn, work, play and love."*

This leads to my rephrasing of the question in the paragraph above to:

"How can the environment of those who find it difficult to build moderate physical activity into their day be changed so that they find it easy to choose to build the type of moderate physical activity that they value into their day?"

This way of rephrasing makes the question quite consistent with the WHO's Active Living project and its focus on physical activity, which developed from a similar paradigm to the more general healthy settings approach (Kickbusch 1997). As well as embedding values in the question and acknowledging the centrality of ordinary people's experiences, this version contributes to an argument about the nature of the truth claims that I can discuss as a result of my research. If I explore the experiences of those who find it difficult to be physically active in their environments, I should be able to propose recommendations that should be of benefit to many people. For if the environment supports the choice for people with difficulties to build physical activity into their day, then the resulting policies, designs or quality standards should also make the environment more conducive to physical activity for such diverse groups as children, older people and even elite athletes with a temporary injury!

Table 4.1 describes four studies and four research methods that I used to initiate research studies and collaborations which in turn draw on many specific arguments and sources at the level of methods.

The first question involves assessing different levels of physical activity and associations and suggests quantitative methods. The second question explores the way ordinary people theorise about health and physical activity. Question three looks for constraints on choices to increase physical activity and how to make the environment more supportive of moderate physical activity, again recognising the importance of exploring the perspectives of ordinary people. Although quantitative methods can again reveal associations between physical activity and such things as facilities in the local area, qualitative studies are best placed to conduct an in-depth analysis of how people experience their environments and theorise about health and physical activity. The fourth question moves towards recommendations for healthy public policy by combining case studies and document analysis of the changing discourses about physical activity with a re-examination of all the studies in what in Chapter Three is defined as analysis for policy. Table 4.1 demonstrates the way quantitative methods can explore associations between factors, while a mix of methods can explore the factors further and propose directions for policy. The contribution of each study to the methodology is discussed in the next section.

Statement of research methodology

In order to explore the research questions as elaborated above, my methodology contains a combination of methods as shown in Table 4.1 below.

Table 4.1 Summary of methodology

Research questions	Research methods
Physical activity gaps between social groups 1.1. What are the differences in levels of physical activity between social groups and how do these gaps relate to the health and other benefits of physical activity? 1.2 What are some associations between levels of physical activity and factors that reflect the social experiences in settings in which physical activity occurs? 1.3 What are some associations between levels of physical activity and facilities in the settings in which that physical activity occurs?	Analytical epidemiological investigation of the results of a cross-sectional community health survey in Adelaide, South Australia. **(Study 1)**
Ordinary theorising 2.1. How do ordinary people theorise about health, physical activity and constraints on choices to increase physical activity? 2.2 What are the implications of ordinary theorising for physical activity and public policy?	Focus groups and field studies exploring the reports and experiences of groups identified by Study 1 as having experience of lower levels of physical activity **(Studies 2 & 3)**
Settings and physical activity 3.1. What are the constraints on choices to increase moderate physical activity and what needs to be done to make those choices easier? 3.2 How can the environment of those who find it difficult to build moderate physical activity into their day be changed so that they find it easy to choose to build the type of moderate physical activity that they value into their day?	Focus groups and field studies exploring the reports and experiences of groups identified by Study 1 as having experience of lower levels of physical activity **(Studies 2 & 3)**
Healthy public policy 4.1 What does the history of efforts to promote physical activity earlier in the twentieth century tell us about the role and rationale of the state? 4.2 What does an analysis of organisations involved in physical activity from 1960s to 1999 tell us about policy and the links between physical activity and health? 4.3. What is the role of the social and political environments in relation to moderate physical activity choices and what needs to be done to ensure supportive settings? 4.4 What are some ways to place the goal of increasing participation in moderate physical activity on the relevant public policy agendas for the twenty-first century?	Document analysis of policies and organisations in South Australia (Study 4) Three case studies of organisations involving semi-structured interviews and document analysis (Study 4a,b,c,d) Analysis for policy based on Studies 1-4 Analysis for policy based on Studies 1-4

Study 1 An analytical epidemiological investigation of the results of a cross sectional community health survey in Adelaide, South Australia

The first study is designed to explore associations between physical activity and factors that are of interest to researchers whose underlying paradigm are those of social constructionism and critical inquiry. Study 1 is designed to contribute to the questions 1.1 to 1.3 in Table 4.1. It specifically aims to provide quantitative data that can both be interpreted in their own right and be used as a springboard for designing qualitative studies.

Epidemiology is "the study of the distribution and determinants of health-related states or events in specified populations and the application of the study to the control of health problems" (Last 1995 p. 55). In Study 1, I examine the prevalence of various levels of self-reported physical activity and factors associated with those levels in a geographically defined population in Adelaide, the capital city of South Australia. Prevalence refers to the number of cases of disease that exists in a defined population at a particular point in time. Epidemiology relies heavily on demographic data that describes the composition of populations, such as the overall size of populations, breakdowns according to age, sex and a host of other variables. In Study 1 I use in the epidemiological model demographic factors that are commonly used in other studies of physical activity.

Analytical epidemiological studies may be cross sectional, aimed at a simple fact-finding or occasionally to test a hypothesis and are useful to establish the prevalence of a disease or health related behaviour and most typically based on random surveys of populations defined by geography (Last 1995). My research is cross sectional, based on a random sample and, using Lasts' terminology, aimed at simple fact finding.

The way I use the epidemiological method reflects the paradigms of social constructionism and critical inquiry. This means that, unlike other uses of the epidemiological method, Study 1 will not seek to stand alone and uncover generalisable facts from an objective world, test a hypothesis, or make definitive statements about causative relationships between factors found to be significant in an epidemiological model. Rather, it was planned as the first of a series of complementary studies, using epidemiological methods to look for associations between physical activity and then using qualitative methods to explore these in more detail. As a result, I will not be making truth claims on the basis of Study 1 alone; instead I will make tentative conclusions and suspend more definitive theorising until I report on and

analyse the results of the qualitative Studies 2 and 3. This position is consistent with Baum's (1998) recommendation that, when used within a new public health framework, epidemiological methods should emphasise the social, cultural economic factors that either create health or causes disease. That way, the methods form epidemiology can be used alongside qualitative methods from social science (Baum, 1998). In my methodology, the epidemiological study was the first of my series of sequential, complementary studies. I saw it as an important springboard for the later focus groups, case studies and document analyses.

My central research interest in this thesis is to explore the way healthy public policies can change settings in a way that promotes health by making the choice to be physically active an easy choice. This led me to a focus on characteristics of the settings in which people choose courses of action that involve different levels of physical activity, which could suggest policy changes.

I was able to use the epidemiological method in this way by analysing data from a community health survey in the southern suburbs of Adelaide (Baum & Abbott 1989). The survey brought an explicit socio-environmental approach to health to the framing, conduct, interpretation and public descriptions of the survey. It also contained the then standard National Heart Foundation's question on physical activity that was used in contemporary surveys about physical activity. However, the socio-environmental approach of this survey meant that it differed markedly from the surveys informed by behavioural approaches that were described in Chapter Two.

I knew of the survey because I had been on its Reference Group during the design and data analysis stages. However, the analysis of data did not focus on physical activity. I therefore approached the organisation with carriage of the survey to seek permission to re-analyse the data set for this thesis with a specific focus on physical activity. I received permission to do this and subsequently designed an analysis of the data which is consistent with the research with the methodology of this thesis. I was able to do this because the design of the survey enabled me to expand the number and scope of factors associated with inactivity by conducting a fresh analysis of a community needs survey that included not only information about demography, health related behaviour and lifestyle, but also community resources and social networks (Baum & Abbott 1989). This fitted my purpose of expanding the scope of epidemiological studies into physical activity.

The survey and the sampling method

We examined data from a survey conducted in 1987 by the South Australian Community Health Research Unit (a government funded research unit located in Adelaide, the capital city of South Australia) which randomly selected from the electoral roll 2473 residents (one in 32)

of the southern metropolitan local government areas Marion, Brighton and Glenelg (Baum & Abbott 1989). One person from each household received a letter of introduction and a reply-paid envelope, with the choice of two postal questionnaires: one for an adult without children and one for an adult to complete for themselves and on behalf of children 16 years or younger for whom the respondent was the parent or guardian. A reminder postcard was sent two weeks later, and a further reminder letter and further copies of the questionnaire two weeks after that.

Sample

Of the 2473 distributed, 1765 completed questionnaires were returned for an overall response rate of 71%. Analysis of the age group and gender distribution of respondents in Table 4.2 shows that the proportion of people aged 60 and over (33%) was slightly higher than the figure of 28% from the data from the closest census in 1986. Fourteen respondents did not answer either the question about age or gender.

Table 4.2 Age group and gender distribution of respondents to the Marion, Brighton and Glenelg Community Needs Assessment Survey (1987)

Age group in years	Men Number	%	Women Number	%	Total Number	%
17-24	85	11.3	113	11.2	198	11.3
25-39	202	27.1	280	27.9	482	27.5
40-59	212	28.4	287	28.6	499	28.5
60-74	191	25.6	243	24.2	434	24.8
over 75	56	7.5	82	8.2	138	7.9
Total	**746**	**100.0**	**1005**	**100.0**	**1751**	**100.0**

Sixty-one respondents did not answer the question about physical activity. We classified the remaining 1704 respondents as low in activity (635 or 37%), moderately active (598 or 35%) and vigorously active (471 or 28%). The 471 vigorously active respondents were then excluded from the sample, leaving 1233 respondents. The final logistic regression model is based on 960 respondents, as 273 respondents had not provided data for all variables.

Development of indices

I decided on which factors to include and exclude in the model as follows:

1. I included the demographic factors of age, gender, income and education because they are useful for describing the sample and have been associated with physical activity.
2. I examined questions about lifestyle and health behaviour carefully and as a general rule excluded questions relating to such factors as decisions about diet and frequency of health checks on the basis that they could inform a behavioural, but not a socio-environmental approach.
3. I included questions about self-reported health status because a considerable volume of literature argues that a powerful reason and benefit for increasing physical activity is that there will be direct health benefits. Questions about self-reported health status also enable me collect data to be followed up in the qualitative studies exploring the position adopted by advocates of the new public health that health is not just an end, but a means or resource for life. I therefore sought to determine any associations between physical activity and health to be examined in more depth in subsequent studies. In addition, one of the sub-scales, mobility, has clear relevance to the characteristics of settings.
4. I selected questions that had not been analysed or reported in epidemiological studies of physical activity and could thus be contrasted with those studies and used in the subsequent, complementary studies. These questions enable investigations of the characteristics of the social and physical environment, which reflects the orientation of the new public health. This view was supported by an Australian study that noted social inequality in the distribution of exercise participation, noted that this distribution raised issues consonant with the new public health and recommended that barriers to participation relating to the social and physical environment be more carefully investigated and integrated into planning and implementation processes (Bauman, Owen & Rushworth 1990).

From the available questions, I decided to:

- examine the results relating to social connections because of the extensive literature linking social support and health. Previous studies of physical activity looked specifically at the form of social support that aimed directly to increase participation in physical activity (Sallis & Owen 1999). I was able to add to the breadth of the debate by including more general measures of social connectedness;
- analyse findings about perceptions of the environment in which people lived and the facilities that were available;

- seek associations between caring for someone with an illness or disability as an example of a role that was predominantly carried out by females and which could lead to specific research on gender differences and physical activity.

The next sections describe the development of indices in more detail.

Physical activity

Self reported physical activity has been proposed as the most useful tool for epidemiological studies of physical activity (Bauman, Owen & Rushworth 1990). We constructed an index of self-reported physical activity based on two questions commonly used in Australian studies and by the National Heart Foundation (Bauman & Owen 1991). The questions were:

> *"How many times a week do you engage in sport or exercise which does not make you sweat or feel out of breath, including gardening or walking?"*

and

> *"How many times a week do you play sport or exercise, for a period of at least 20 minutes, which makes you sweat or feel out of breath?"*

Respondents were classified as having low levels of activity if they reported either no activity at all or activity only once or twice a week that did not make them sweat or feel out of breath. Respondents were classified as moderately active if; they reported either type of activity once or twice a week; or reported activity three or more times a week that did not make them sweat or feel out of breath; or reported both types of activity once or twice a week. Respondents were classified as vigorously active if they reported activity for 20 minutes to make them sweat or feel out of breath three times a week or more; or reported both types of activity once or twice a week plus 20 minutes of activity to make them sweat or feel out of breath.

In preparation for the analysis I examined the literature and previous studies in order to decide how to construct physical activity as the dichotomous dependent variable required for a logistic regression model. One way is to define inactivity as the dependent variable, to be compared with all other levels of physical activity (Owen & Bauman 1992). Another is to define vigorous activity as the dependent variable, to be compared with all other levels of physical activity (Bauman & Owen 1991). There were four reasons for exploring a third way, focussing on low inactivity versus moderate activity while leaving vigorous activity out of the analysis:

1. As reported in Chapter Two, it has been consistently argued in the 1990s that the greatest public health gain arises from increasing the activity of the people in the population with low physical activity levels into the moderate activity range.

2. Bauman, Owen & Rushworth (1990) reported that the prevalence of self-reported physical inactivity was reducing significantly (from 32.9% in 1984 to 25.4% in 1987) at the same time as participation in vigorous activity was only slightly increasing. This was seen as an encouraging public health observation.

3. In the early 1990s, as reported in Chapter Two, there was a move by organisations such as the National Heart Foundation to recommend the health benefits of moderate levels of physical activity.

4. Participation in vigorous physical activity (compared with all other levels) is higher in males, younger people and those with higher levels of education (Bauman, Owen & Rushworth 1990). It therefore appears that those engaging in vigorous physical activity may be very different from those engaging in moderate or very little physical activity.

On the basis of these findings I decided to focus on the transition between low and moderate levels of physical activity and so we (MacDougall & Cooke 1993) conducted a preliminary examination of the data using a range of exploratory multivariate analyses in which we compared odds ratios of factors associated with low versus moderate physical activity on the one hand, and with moderate versus vigorous physical activity on the other.

Table 4.3 compares selected results from two stepwise logistic regression analyses. The table compares those factors that were associated with physical inactivity (compared to moderate activity) with those associated with moderate (compared to vigorous activity). Only selected, statistically significant factors are presented in the table.

Table 4.3: Selected comparisons between factors associated with physical inactivity (compared with moderate activity) and factors associated with moderate activity (compared with vigorous activity)

	Factors	
Age (years)	**Odds ratios predicting inactivity compared to moderate activity**	**Odds ratios predicting moderate activity compared to vigorous activity**
17-24	not significant	1.00
25-39	not significant	**2.08**
40-64	**1.45**	**2.93**
>65	not significant	**3.58**
Education		
tertiary	not significant	1.00
secondary	not significant	**1.39**
General health		
good/very good	not significant	1.00
fair	not significant	not significant
poor/very poor	not significant	**10.04**
	N=658	**N=671**

Increasing age was a strong and consistent predictor of people engaging in moderate as opposed to vigorous activity. However, age was only a predictor of inactivity versus moderate activity for those aged 40-64. There were similar findings with education and self rated health (MacDougall & Cooke 1993). We concluded that those classified in the category of vigorous physical activity were therefore very different on key factors from those classified in the category of moderate physical activity. Therefore it would be inappropriate to prepare a dichotomous variable by adding the moderate and vigorous activity categories together in a *rest* category to be compared with low physical activity. Consequently, for theoretical and empirical reasons we excluded the vigorous activity category from the multivariate analysis and used a dichotomy of low versus moderate physical activity.

Health status

Indices of health status were developed from a measure of self-reported general health and the Nottingham Health Profile (NHP). Self reported health was measured by asking for a response on a five-point scale from *very good* to *very poor* to the question *In general, what has your health been like in the last 12 months*. A review stated that self reported health is a robust measure, unaffected by different ways of asking the question (Idler 1992). The test-retest reliability was determined in a Finnish sample to be fair or good for both men and women, except in the age group over 75 years (Martikainen, Aromaa, Heliovaara, Klaukka, Knekt, Maatela & Lahelma 1999). In Australia, a seven year follow up study concluded that self-rated health is related to survival for older Australians (McCallum, Shadbolt & Wang 1994). Measures of self rated health have been used in an Australian Standard of Living Study to link health status with material well being (Travers & Richardson 1993). Respondents were classified as having very good general health if they reported that over the last 12 months, in general, their health was very good (as opposed to good, fair, poor or very poor).

The Nottingham Health Profile (NHP) is based on lay perceptions of health status, is designed for self-completion, is short and can be easily administered (Baum & Cooke 1989) (Bowling 1991). Part I measures self reported health status by asking for yes/no responses to 38 questions in six dimensions: mobility, pain, energy, sleep, emotional reactions and social isolation. Part II asks about effects of health on seven areas of daily life: work, looking after the home, social life, home life, sex life, interests, hobbies and holidays. Scores are obtained from a scaling technique with scores ranging from 0 (no problems) to 100 (all problems in a section are affirmed) (Bowling 1991). The Nottingham Health Profile was used in a community health needs survey in South Australia and was seen as a useful indicator of the relationship between morbidity and a wide range of social indicators (Baum & Cooke 1989).

The non-parametric Wilcoxon Rank Sum Test was applied because the NHP is a continuous variable that was not normally distributed. The report from the community health survey

noted differences between groups on the Mobility factor of up to 19 units (Baum & Abbott 1989) so we decided to use a 20 unit increase for the odds ratio.

Social connections

The two different dimensions of social networks are the actual number of persons (family, friends, colleagues, co-workers with whom one meets regularly) and the quality of support offered by persons in those networks (Orth-Gomer & Unden 1987; O'Reilly 1988). A review reported minimal intercorrelation between the two categories (Orth-Gomer & Unden 1987). The community health survey explored the quantity or social connections dimension of social support. For Study 1, we created an index of social connections from the frequency of contacts with friends and relatives; similar to one of the components of the Alameda County Study's Social Network Index (Berkman & Syme 1979). Respondents were classified as having high social connections if they spoke either daily or once a week, face to face or on the telephone, to at least two from the groupings of family, friends or neighbours. In addition, the study examined the effect on health of status as a carer of a person who was aged or had a disability.

Recreation facilities

Respondents were classified as being satisfied with recreation facilities if they rated being satisfied (as opposed to neither satisfied or dissatisfied, or dissatisfied) with sport, recreation facilities, meeting places and parks in their local community. Respondents were classified as being satisfied with their local community if they rated being very satisfied or satisfied with the quietness, cleanliness, attractiveness and safety of their living environment.

Studies 2 and 3: Focus groups and field studies exploring people's experiences and theories of physical activity in their settings

Studies 2 and 3 address the second broad research question from Table 4.1 and the following specific questions, again from Table 4.1:

> *What are the reports and experiences of people about constraints on choices to increase moderate physical activity?*
>
> *How can the environment of those who find it difficult to build moderate physical activity into their day be changed so that they find it easy to choose to build the type of moderate physical activity that they value into their day?*

The second question above uses the phrase *physical activity that they value* to reflect the broader question of:

> *How do ordinary people theorise about health, physical activity and constraints on choices to increase physical activity?*

Focus groups have become an increasingly used method of data collection in health research in recent years. They are not a new method, but with a few exceptions (Merton, Fiske & Kendall 1956) (Merton 1987) had until recently, been used mainly in marketing research. Researchers in developing country settings have used focus groups as a method for obtaining local peoples' views on issues such as attitudes to family planning (Folch-Lyon & Trost 1981) and opinions about the introduction of new technology (Khan & Manderson 1992). In developed country settings there is an increasing number of research reports in health promotion and clinical areas that are based on focus groups (Murphy, Cockburn & Murphy 1992). Also texts on research and evaluation methods now routinely recommend their use (Hawe, Degeling & Hall 1990; Patton 1990; Crabtree & Miller 1992).

Focus groups have the advantage of "being inexpensive, data rich, flexible, stimulating to respondents, recall aiding and cumulative and elaborative." (Fontana & Frey 1994 p. 365) Focus groups are very different from an aggregation of interviews or a group interview:

> *"A focus group is not a collection of individual interviews. It is a single entity in its own right. The structure and content of the discussion may vary considerably from one focus group to the next because of the unique dynamics of that specific group interaction" (Thomas, Steven, Browning, Dickens, Eckerman, Carey & Pollard 1992 p. 11).*

The group interaction can yield more and richer information than individual interviews with the same participants (Murphy, Cockburn & Murphy 1992; Asbury 1995).

As well as conducting focus groups, I have also used what I describe as fieldwork. Fieldwork is part of the anthropological tradition of using long-term participant observation to generate knowledge, often guided by the constructivist or interpretivist paradigm" (de Laine 1997 p. 141). Fieldwork can, however, range from single observations of one hour to long-term multiple observations. I use the term fieldwork to describe discussions which cannot be described accurately as a focus group. We followed Patton's (1990) advice and always kept field notes. Fieldwork was conducted in both Studies 1 and 2.[14]

---

[14] A good example is when what was arranged as a focus group with a sample of ten members from a group became in reality me being introduced as a guest speaker to all forty or so members of the whole group! This I describe as fieldwork involving field notes rather than verbatim transcripts. Another example is a series of visits to a senior citizens club where, while the key informants did not think it appropriate to conduct a focus group, they were happy for the researchers to attend on three occasions to observe, interview members informally as they participated in activities or seek permission to interview individual members.

Study 2 was planned to complement the earlier Study 1 by seeking people in the same geographic area as those from the study and exploring their reports and experiences of their settings and their theorising about health. Focus groups were chosen because of their capacity to give rise to insights and solutions that would not be possible without the group process.

After Study 2 was planned, I developed a research project with the National Heart Foundation (South Australian Branch). Known as Study 3, it has complementary aims to Study 2. In this thesis, I use many of the results from Study 3 to support Study 2 and I highlight those analyses from Study 3 where I can claim to have led the analysis of results. I have taken care to argue the basis of my claims because, while collaborative research is common and desirable in public health, a doctoral thesis should specify what claims the candidate makes about authorship. However, even when I claim to have led the analysis of results in the research group, I acknowledge that mine was not the only contribution and that being a part of that research team significantly influenced my thinking.

Sampling procedure

The rationale for sampling using qualitative methods differs from that for quantitative methods. Samples are purposive rather than random and aim to select cases that will provide rich data. They are usually theory-driven in that they either start from a theory that is being tested or which is growing progressively, as with grounded theory. The sample is flexible, evolving as the study develops and continues until little new information is being gained (Baum 1998).

When sampling, researchers are encouraged to consider the following parameters (Sarantakos 1998):

- the kind of people to be included;
- the time at which to contact respondents, whether it be daytime, evening, weekends or in particular seasons;
- the kind of event or process to be studied, whether it be a special event or a routine event;

Reviews and reports of focus groups note that there can be difficulties in recruiting participants, for example:

- when the topic is sensitive (Baum 1998);
- when deciding for ethical or analytical reasons whether to provide payment for participants (Baum 1998);

- when focus groups are "... disastrous because so few people showed up for the discussion." because invitations were not personalised or followed up, the discussion seemed to be on an insignificant topic, the time was inappropriate, recruitment did not build on existing relationships and incentives were not offered" (Krueger 1994 p. 89).

To overcome these difficulties, a range of recruiting strategies have been recommended:

- conduct the research in partnership with any consumer, community or advocacy groups who are affiliated with the desired participants - especially if the topic is sensitive (Baum 1998);
- recruit through informal networks of colleagues, community organisations, community agencies and the target group plus the use of advertising (Hawe, Degeling & Hall 1990);
- recruit through existing organisations and networks, enlisting the assistance of a contact person, such as from lists of medical practitioners (Murphy, Cockburn & Murphy 1992);
- send individual letters followed by a telephone call to prompt and confirm participation (Murphy, Cockburn & Murphy 1992) ensuring they are personalised and stress that the potential participant has experiences and insights that would be of value to the study, and that the study has benefits for the community (Krueger 1994);
- follow up invitations and arrange meeting times that do not conflict with existing community activities and functions and then make contact by telephone two weeks then one day before the meeting (Krueger 1994);
- use trained staff to invite participants (Krueger 1994);

In the early stages of planning Study 2 I considered the issue of how best to recruit participants. My decision to select the geographical area substantially covered by the local government area of Marion was principally determined by the fact that Study 1 had been conducted in that area.

Studies 2 and 3 employed the same research assistant who worked with me on the recruiting strategy for both projects. On the basis of the literature on recruiting and sampling that is reviewed above and our reflections on our sampling process, we divided recruiting into three stages summarised in Table 4.4: *prepare, contact* and *follow up* (MacDougall & Fudge 2000 in press).

Table 4.4 A strategy for recruiting participants from existing groups in focus groups and field studies

Prepare

1. **Describing the sample**
   Have you used your research or evaluation goals to prepare a list of the desired geographical locations, characteristics and experiences of participants?
2. **Finding information sources**
   Have you obtained comprehensive lists or directories of groups, networks and other sources of information in the communities in which you are interested?
3. **Finding key contacts or champions**
   Have you made contact with people or organisations who know the communities (defined by geography or by common interest) in order to seek *key contacts* (who can make suggestions about possible groups, networks or participants) or, even better, *champions* (who take an active interest and become involved in recruiting either directly or by allowing the researcher to use the champion's credibility or authority in the community)? A *key contact* or *champion* may also be recruited as a participant in the research.
4. **Discovering recent or related projects**
   Have you contacted colleagues and community members to seek out recent or current related research projects and got to know how they have involved or interviewed groups, organisations or potential participants in the research? Have you ensured that your recruitment for your current research builds on previous research and on existing relationships?
5. **Drafting alternative samples**
   Have you put together your description of the sample from 1 above and your community knowledge from 2-4 to form lists of groups, networks, key contacts, and champions to approach to fulfil the desired characteristics and experiences of your sample?
6. Have you included many alternative possibilities so you are better able to deal with access problems; especially for hard to reach groups, sensitive topics or when potential participants will not be recruited on the basis of their membership of a group or network?

Contact

1. **Initial approach**
   Have you (or an appropriate colleague) approached personally or by telephone a key contact or champion for each group, network or community?
   Have you immediately sent to the key contact or champion a brief pamphlet or information sheet that has been specifically written for that audience?
   Have you stressed that your research starts from the position that potential participants have valuable experience, knowledge and insights that are important for the research and for the community in general?
2. **Negotiation with key contacts**
   Have you sought explicit endorsement for your research and sampling methods from the key contact or champion?
   Have you discussed how you can quickly meet the potential participants at an appropriate time, for example at a scheduled meeting, event or a series of visits to group activities?
   Have you concluded that the key contact either does not endorse your research or sampling methods or is in other ways acting as a *gatekeeper* who makes it difficult to contact the group? If so, have you considered either critically examining the relevance and persuasiveness of the information you provide or directly involving the gatekeeper in problem formulation?

Table 4.4 cont.

2. **Negotiation with key contact cont.**
   Have you also considered bypassing the gatekeeper and finding another contact or making direct contact with the potential participants or respectfully moving on to another alternative without getting involved in difficult negotiations or wasting time?
3. **Direct negotiations**
   Have you met the potential group or individual participants in the presence of, or with the clear and public endorsement of, the key contact or champion?
   Have you provided a description of the research, provided opportunities for questions, and prepared a brief pamphlet or information sheet that has been specifically written for that audience?
   Have you conformed to ethical standards in your approach to potential participants, including formal endorsement from ethics committees if appropriate?
   Have you negotiated a time and place for focus groups or interviews directly with potential participants?
   Have you determine an effective and ethical way of obtaining addresses of potential participants in order to maintain direct communication about the research?
4. **Confirmation**
   For focus groups, have you written to potential participants in focus groups after the meeting time has been arranged and then about two weeks before the focus group and asked them to send a confirmation or apology on a form in the pre-paid and addressed envelope provided?
   For in-depth interviews, have you considered whether it is better to confirm by post or to make a personal visit or telephone call to confirm the time?
5. **Involvement**
   Have you negotiated processes for continued involvement and feedback in the research and resulting action?
   Do you have a plan and resources for after the focus groups or interviews to maintain relationships with key contacts, champions and participants who show continuing interest in the research or action resulting from the research?

Follow-up

1. **Feedback to and from participants**
   Have you provided to participants quick feedback on the general themes from the focus group or interview and negotiated the process for involving them in developing a report?
   Have you provided opportunities for participants to give you feedback on their experience of the process of the research or action to be taken as a result of the research?
   Have you considered this feedback and discussed or negotiated resultant action with participants?
2. **Feedback to key contacts or champions**
   Have you provided to key informants or champions quick feedback on the general themes from the focus group or interview, taking care to maintain confidentiality and avoiding identifying either individuals or the statements from individuals?Where appropriate, have you sought opportunities to acknowledge the contributions of key contacts by way of publicity, testimonials etc?
3. **Continuing links**
   If the research is part of a continuing project, have you used newsletters, meetings, committees or working parties to maintain involvement of participants, key contacts or champions in the research process?
4. **Public events**
   Have you ensured that participants, key contacts, champions or their representatives are invited and welcomed to official launches, celebrations or public events directly associated with the research?
5. **Action and advocacy**
   Have you allocated time and responsibilities for you and other people to participate in or advise on action or advocacy arising from or associated with the research?

Prepare

In the prepare stage, we decided to recruit from existing groups or networks because:

- we were relatively clear about the desirable characteristics and experiences of participants and confident we could locate groups and networks accordingly;
- if we could select appropriate groups and networks, then we would have access to a pool of people who had selected themselves for membership and who would thus be likely to be suitable participants;
- it helped us with the potential difficulty of appearing to seek people because of a perceived deficit. For example, in Study 2 I wanted to hear about experiences around social connectedness or isolation, but did not want to enter the difficult territory of advertising for people who were labelled or identified as *lonely* or *isolated*. Nor did I want to explore euphemisms or disguise the point of the research. By finding a group of volunteers, I was able to discuss their experiences with isolated people and the contribution of volunteering to their own social connectedness;
- we considered that it would be easier to maintain continuing contact with organised groups than, for example with participants from a snowball sample. Therefore, we were more likely to devise a research method that could be replicated and used as a means for taking action.

As shown in Table 4.4, we used local information directories that were published and information from local government about groups who were funded by local government or used their facilities. We also contacted people in the regional community health service to discuss key informants and used our own networks: for example the Italian speaking research assistant was able to make contact with a group of older Italian women who met through a church; the principal investigator for Study 2 used networks from her children's' school and another investigator convened a group of students from his university who commuted to the city.

Contact

In the contact stage, the most important lesson was to find the best key informant and seek to make contact as soon as possible with the group or network of interest. This was important because:

- on some occasions the key informants played the role of gatekeepers, asking for more and more information before contacting the group, expressing doubts about whether the group would be interested in even discussing the research, stating they would contact the group but not appearing to do so;

- on two occasions the key informant gave an opinion about the best time and place for a focus group which turned out to be contrary to the view of the groups themselves;
- on another occasion the key informant relayed a very different understanding of the nature and purpose of a focus group from that which we thought we had communicated.

In response to these events, we:

- respectfully stopped contact with gatekeepers when it was apparent that we could not gain access to the group itself and moved to another alternativ;
- rescheduled focus groups to a more appropriate time and place;
- arrived with tape recorder, coffee and cake for a focus group of 12 to find we were guest speakers for a large group and improvised by giving a general speech leading to a discussion, presenting the cake to the president of the group and revising the description of the activity to a field study.

By far the best outcome from our perspective was when we could quickly gain access to the group, communicate our message personally and negotiate about the time and place to hold a focus group. We ensured that we respected each group's ethical and privacy position on how to communicate with potential participants before and after the focus group. In most cases we did this through the key informant so we would not retain their mailing lists.

Follow-up

In the follow-up stage, as shown in Table 4.4, we provided quick feedback and, in some cases, remained in touch with the groups. We assisted one group to prepare representations to the local government about an issue that arose in the focus group and tracked the progress of that issue over a number of years, advocating where possible and endeavouring to keep the issue on the agenda.

Description of the sample

Tables 4.5 and 4.6 describe the 185 participants in focus groups and field visits for Studies 2 and 3. The sample for Study 2 comprises 108 participants in focus groups and field studies with experience of the factors that Study 1 found were associated with lower levels of physical activity. These factors are reported in detail in Chapter Six of this thesis. The sample for Study 3 comprises 77 participants in focus groups and field studies with experience of physical activity in relation to work, shopping, childcare and education and leisure. The samples were planned and recruited simultaneously, however, and a major report on Study 3 includes the sample from both studies (Wright, MacDougall, Atkinson & Booth 1996). This reflects the high level of co-operation between all the researchers involved in the studies and the complementary aims of the studies.

Table 4.5: Participants in focus groups, interviews and field visits for Study 2

Group	Description	Number of people
Prime Timers	Focus group comprising people from Prime Timers, an activity group associated with a church. The purpose of the group was to provide social and recreational activities for people over forty. Participants had demonstrated an interest in seeking social support and recreation involving physical activities and were aged between 40 and 54.	11
Arthritis Group 1	Focus group comprising people from the Marion branch of the Arthritis Foundation, a support and education group for people with arthritis. Participants met for physical and social activities and for information about living with arthritis and therefore had direct experience of mobility problems.	8
Trott Park Literacy.	Focus group from the Trott Park Literacy Group, which met to improve the literacy of participants. Participants lived in an outer suburb characterised by social disadvantage and recreation facilities that are not easily accessible without private transport.	5
Marion Volunteers	Focus group from Marion Volunteers. Participants volunteered their time to help people who, because of poor health or isolation, need support beyond that provided by their families. Participants therefore had experience of the importance of social support for people whose health and mobility difficulties could contribute to social isolation	4
Friends of Southern Hospice	Field visit as guest speakers at a regular meeting and discussion session with a self-help group comprising elderly bereaved people. Participants had experienced loss of a partner and met to provide support and social activities. Participants also had experience of being carers.	40
St Maria Goretti	Field visit by researcher with knowledge of Italian language and culture to a regular meeting of Church social group. Participants were women with experience of poor health.	40
Total		**108**

Table 4.6: Participants in focus groups and field visits for Study 3

Group	Description	Number of participants
Women with Babies	Focus group with women who had contacted the City of Marion to advocate for more services. The women heard about the project with the National Heart Foundation and volunteered to form a focus group.	5
Hallett Cove South Primary School	Focus group with parents of primary school children at Hallett Cove South Primary School	8
Brighton Secondary School	Focus group with members of the School Council of Brighton Secondary School, a school with many students from Marion and surrounding areas.	8
Hamilton Secondary School	Focus group with members of the School Council and one student from Hamilton Secondary School, a school in the Marion area with a combination of secondary school students and adult re-entry students.	5
Tertiary Students	Focus group with students in their early twenties who travelled to a university in the centre of Adelaide.	6
National Heart Foundation	Focus group with staff members from the National Heart Foundation office in the city, some of whom travelled from or through Marion on the way to work.	8
Arthritis Group 2	Focus group with people from the Marion branch of the Arthritis Foundation, a support and education group for people with arthritis.	5
Cardiac Rehabilitation	Focus group with people from a cardiac rehabilitation program at Flinders Medical Centre, a teaching hospital serving Marion and other Southern areas. Another person from that group was interviewed separately.	8
Gut Busters	Field visit with Gut Busters South Australia, an organisation which helps men to reduce their waistline.	2
Australian Retired Persons' Association	Field visits involving two mornings at the Australian Retired Persons' Association where many older residents of Marion meet for social and recreational activities.	15
Marion Leisure Centre	Field visit involving a morning observing the use of the Marion Leisure Centre, talking with users and interviewing the manager.	7
Total		**77**

Data collection

Focus groups and field visits were conducted at or very near the group's usual meeting place at a day and time nominated as convenient. Information sheets and presentations about the project were carefully worded to give accurate information without suggesting either a correct answer or that each individual should take responsibility for doing more exercise. Publicity stressed that people are experts in the area in which they live and have valuable proposals for changes in their area.

In the two studies there were similar questions and common prompts as shown in Tables 4.7 and 4.8. Table 4.7 demonstrates that Study 2 focussed on the general characteristics of the respondents' environments and how they perceived health and physical activity. Table 4.8 demonstrates that Study 3 was focussed on the way the environment did or not support physical activity in relation to the daily activities of work, shopping, child care and recreation. In both studies, facilitators ensured that the group discussed what was good about living in their area, what changes would make an environment support physical activity, who should be responsible for any changes and how they could become involved in change.

Table 4.7: Guide used by facilitators in focus groups and interviews for Study 2.

Prompts
What are the good things about living in your area?
Does your area provide the facilities for your everyday needs?
Do you have any needs that are not catered for in your area?
What method of transportation do you normally use?
How do you think you might carry out your daily activities without a car?
What are the good things about your area which make it easier to take regular, moderate exercise or physical activity?
What do you think makes it difficult to take regular, moderate exercise or physical activity?
How do you and people in your group or organisation describe your health and ability to move around?
What do you think makes it difficult for people in your group or organisation to walk or cycle as part of the daily routine?
What changes would you like to see and how do you think these changes might occur? Who or what person or organisation do you think should be responsible for these changes?
How do you think you could be involved in this process?
Additional questions may be prompted by the facilitator considering the following: • What else do I need to ask to understand this respondent's statement-what it means, why he/she feels that way? • Am I hearing everything I need to know to understand the problem and answer the objectives of the research? Is there a question not on the guide that I need to ask? • What is the significance of these statements? • What are the respondent's real feelings? Are they saying what they think I want them to say, or what they really feel?
What are the main points of the discussion? Ask if this perception is accurate.

Table 4.8: Guide used by facilitators in focus groups and interviews for Study 3.

Prompts
What are the good things about your area which make it easier to walk or cycle (combined with public transport where necessary) on a regular basis to get to work/do the shopping/get your children to school or day-care/for leisure and recreation as part of your daily routine?
What do you think makes it difficult to walk or cycle (combined with public transport where necessary) on a regular basis to get to work/do the shopping/get your children to school or day-care/for leisure and recreation as part of your daily routine?
What would it look like if some of the changes you think are necessary were to happen? (relate to an issue discussed in the group)
Who or what person or organisation do you think should be responsible for these changes?
How do you think that these changes might occur?
How do you think you could be involved in this process?
Additional questions may be prompted by the facilitator considering the following: • What else do I need to ask to understand this respondent's statement-what it means, why he/she feels that way? • Am I hearing everything that I need to know to understand the problem and answer the objectives of the research? Is there a question that is not on the guide that I need to ask? • What is the significance of these statements? • What are the respondent's real feelings? Are they saying what they think I want them to say, or what they really feel? • What are the main points of the discussion? Ask if this perception is accurate.

We established a Management Committee for Study 3 with representatives from the National Heart Foundation, Commonwealth Department of Health and Family Services, Flinders University of South Australia and the City of Marion. The area, research questions and interview guides were so similar for the two studies that this committee served to monitor many aspects of Study 2 as well.[15] Two researchers facilitated each focus group. At the end of each group participants were invited to complete a questionnaire about their experience of the focus groups and if they would like to add to the discussion. After each contact with key informers or groups we collected good quality information by making field notes which recorded information about the context and setting, descriptions of observations, direct quotations and near as possible recall of what people said (Patton 1990).

Focus groups were audio-recorded using a discreet tape recorder. Tapes were professionally transcribed in a format appropriate for analysis by the NUD.IST program, as described later. Soon after each focus group we sent the participants our summary of the main themes containing quotations and paraphrases from the participants and invited them to comment.

Data analysis

In this section I describe how I used an analytical approach that was developed for conducting and analysing applied qualitative research within a British independent social research unit whose work spans all areas of social and public policy. The approach, known as *Framework*, involves a number of distinct, though highly interconnected, stages. *Framework* relies on the creative and conceptual ability of the analyst to determine meaning, salience and connections. Leaps in analytical thinking involve jumping ahead and returning to rework earlier ideas and are assisted by the opportunity to refer to a well-documented analytical process. *Framework* involves a systematic process of sifting, charting and sorting material according to key issues and themes (Ritchie & Spencer 1994). In the next few sections, I describe how I use *Framework* and approached the analysis and the assessment of quality, including triangulation. In the process, I acknowledge the contribution of other colleagues:

- to Study 2 (in which I was principal investigator);
- to Study 3 (in which I was a researcher but not the principal investigator) and to highlight areas where I led the intellectual argument to a sufficient degree to warrant their inclusion in this thesis;
- to the assessment of quality and development of themes and theories.

There are six stages of qualitative data analysis in the *Framework* approach: familiarisation, identifying a thematic framework, indexing, charting, mapping and interpretation.

Familiarisation

The researcher must be familiar with the range and diversity of the data and requires immersion in the data: listening to tapes, reading transcripts, studying observational notes. Familiarisation is important when there are multiple researchers and one analyst has a second-hand grasp of colleagues' material. It is also important to gain a feeling for the data as a whole in order to place hunches and emergent themes in context (Ritchie & Spencer 1994).

In the *Familiarisation* stage, I understood the purpose of collecting the range and diversity of data because I played the principal role in designing all studies except Study 3, in which I had a major role. This meant that when analysing the results of the qualitative Studies 2, and 3 I could seek connections with the quantitative Study 1 and the document analysis and case studies of Study 4 It was helpful to discuss the data with the first research assistant, Tonia Mezzini, who worked on recruitment for both Studies 2 and 3 and attended every focus group

---

[15] In fact, the report from Study 3 Wright, C., C. MacDougall, R. Atkinson and B. Booth (1996). Exercise in daily life: supportive environments. Adelaide, Commonwealth of Australia. included data from focus groups that were conducted in Study 2.

and field visit. She had a thorough knowledge of the context of each group and fieldwork episode arising from her detailed work in arranging for the sample. From her background in anthropology and interviewing she brought the ability to co-ordinate the process of obtaining accurate, well-documented transcripts. The subsequent research assistant, Bridget Booth, joined the research projects after the data were collected and in time to assist with the coding and computer indexing of Studies 2 and 3. Bridget Booth also had a background in anthropology, plus advanced technical and conceptual skills in the application of NUD.IST; the computer indexing process described later. Bridget Booth was able to contact Tonia Mezzini with any questions about the transcripts and the context of the data.

I attended all the focus groups and episodes of fieldwork in Study 2, with the exception of one focus group with older Italian women which I did not attend for reasons of gender and cultural sensitivity. I attended the majority of the focus groups and episodes of fieldwork in Study 3. The research team for Study 3 met frequently with Bridget Booth as we worked together to develop a coding system. Each of us read all the transcripts and there was a debriefing session after focus groups and fieldwork which was beneficial for those who did not attend a particular session. After each focus group we prepared a summary of findings and themes which we fed back to the group for comment.

Earlier, I describe the way that for both Studies 2 and 3 we sampled from a theoretical perspective that emphasised the importance of how settings make it easy or difficult to build physical activity into the day; in particular into activities associated with work, education, shopping and leisure. We also made contact with groups who had experience of factors associated with low levels of physical activity. Because we brought these ideas to the sampling and data collection, it was important to become immersed in all the data and to be aware of our (individual and team-based) emergent theories and hunches. Otherwise, we would easily fall into the trap of quickly translating our hunches into a more formal theory and searching the data looking only to find examples that confirmed our views. I took care to write down my developing theories in a journal so I could watch how I read the data and ensure that I looked for exceptions and new possibilities. On a number of occasions I thought I had detected support from the data for an emergent theory, only to find on closer examination that the support was minimal. On such occasions, the data were often memorable for their pithy or eloquent properties.

Identifying a thematic framework

In the *Familiarisation* stage the analyst gains an overview of the richness, depth and diversity of the data and begins the process of abstraction and conceptualisation. In the second stage, the analyst returns to the notes and attempts to identify the key issues, concepts and themes that can be used to set up a thematic framework to guide the sifting and sorting of data.

Here, the analyst draws on:

- *a priori* issues informed by the original research aims and introduced into interviews via the interview guide;
- emergent issues raised by the respondents themselves;
- analytical themes arising from the recurrence or patterning of particular views and experiences.
- The first version of an index is largely descriptive and rooted in a priori issues. It is applied to a few transcripts to allow categories to become more refined and responsive. Indexes are a mechanism for labelling data in manageable bites for subsequent retrieval and exploration (Ritchie & Spencer 1994). The task of identifying themes must be done alongside the indexing process that is described in the next section. I started to develop themes using the three methods described above as follows:
- using the a priori method, in Study 2 I actively looked for interconnectedness between the factors that were significantly associated with physical inactivity from Study 1; for example between mobility, facilities and social connections. However, it was apparent that if this was all I did it would excluded a lot of information and would head towards very complex coding "trees" which exemplified the potentially paralysing problem of concluding that most pieces of information are related and are therefore included in a number of themes.
- I ensured that I looked for themes that reflected emergent issues raised by the respondents themselves. For example, I did not limit the analysis to exploring an association or causal relationship between physical inactivity and men with low levels of social connections. Instead, I looked broadly at all the aspects of social connections and physical activity and inactivity as reported by both men and women who participated in the study.
- I looked in the data for recurring themes that I had not anticipated, for example the theme of people reflecting on factors associated with physical activity in past, present and future times.
- In both Studies 2 and 3 my colleagues and I started to define themes by using the capacity of NUD.IST to created an inverted tree structure characterised by roots from which branches grow into nodes or labels describing themes. Our early versions of trees proved to be very complex, with major branches defining characteristics of individuals, their behaviour, their experiences and many aspects of their settings. While these trees served the purpose of analysing each transcript in great depth, it became difficult to decide where to put particular pieces of data, leading to the temptation to put the same piece of data in many places. There was also some momentum towards creating more and more branches. Again, these early drafts allowed detailed examination within each

transcript. However, these complex trees did not help as we started to assemble transcripts and tried to draw together themes so we could prepare early reports. As I describe in the next section, as we moved from identifying early themes to the indexing stage, we recognised the need to re-examine our approach to defining themes.

Indexing

- Indexing is the process whereby the thematic framework or index is systematically applied to the data in its textual form. All the data are read and annotated according to the thematic framework. In the process, numerous judgements must be made about the meaning and significance of the data.
- It was in this stage that a replacement for the inverted tree structure was developed as we proposed themes that seemed to assist our early trials of coding and analysing more than one transcript at a time.[16] These new themes helped us to describe the data from a number of focus groups and it became possible to develop lists of issues to be considered in health promotion and policy debates. However, many of the issues contradicted each other and it became clear as we moved to the charting stage that it would be necessary to organise the data further in order to facilitate the theorising process.

Charting

Charting is the lifting of the data from their original context and rearranging them according to the appropriate thematic reference which are devised with headings and sub-headings which may be drawn from the thematic framework, a priori research questions or considerations of how best to present and write up the study (Ritchie & Spencer 1994). In

---

16 In a presentation to a seminar in my university department MacDougall, C. (1996). Exercise policy and community voices. Department of Public Health Seminar Series, Flinders University, Adelaide, Australia August. I outlined five themes, each with sub-themes as described below:

Theme 1: Physical environment

The theme included descriptions of the built and natural environments.

Theme 2: Getting around

The themes included comments and experiences with public and private transport.

Theme 3: Socio-political

In this theme, we included comments about the social mix in an area, comments about changes over time (we called this the historic continuum), quality of life, safety, community action,

Theme 4: Meaning of life

In this theme we coded comments about meaning of life, purpose of physical activity and views of the self in society. Also included were comments about the perception of health and related policy action.

Theme 5 Barriers

Here we included barriers to physical activity, what would support physical activity, any visions for change and who may be responsible for change.

this stage, I was assisted by a number of formal and informal discussions with colleagues, exemplifying the story dialogue method, in which, drawing on participatory action research, participants in a health promotion initiative seek to increase understanding of the project and to elicit generalisable theoretical information (Baum 1998). This is done by telling the story of their experiences to a group and then working through reflective processes to determine themes and insights. To do this, I structured formal presentations in my university department of public health (MacDougall 1996), arranged discussions with visiting scholars to the department (Wass 1996 1 October) and organised a seminar at the Australian Public Health Association's Annual Conference where we presented our work and sought public comment from two experts (MacDougall & Wright 1996). I completed the reflective process by keeping a journal and redrafting indexing and charting systems.

At the practical level, my progress towards developing the framework into a tool for analysing the data was assisted by a discussion with Dr Ron Labonte, a community health consultant from Canada, who was visiting my university department at the time. Labonte suggested that I re-frame the coding categories that I had already developed so they could more easily form the basis for a theory of physical activity that differed from the dominant discourses This development was reflected in the way the publication of results of Study 3 was structured; using the headings "Where people live, How people move around, how people relate to each other" (Wright, MacDougall, Atkinson & Booth 1996). A distinctive feature of my input into that collaboration was the development of a framework, expressed as the headings in the report, that subsequently developed into the model that is now the basis of this chapter. (Labonte 1996 14 February).

By the end of this process, I had developed a charting system based on the three elements that the remainder of this chapter describes in detail; namely locating in space, moving through space and relating to people in space. In my early discussion with Labonte, another view of settings, moving through time, was suggested; reflecting coding categories including participants' observations of changes over their lifetimes and their projections of changes in their children's' lifetimes. However, I subsequently revised this from a separate view to an additional dimension on each of the three elements. In addition, I started to explore the difficulties, risks, purposes and benefits that people associated with physical activity.

Mapping and interpretation

Mapping and interpretation takes place when all the data have been sifted and charted and involves the analyst pulling together key themes and mapping and interpreting the data set as a whole (Ritchie & Spencer 1994). The analyst returns to the key objectives and features of qualitative analysis, by:

- defining concepts;

- mapping range and nature of phenomena;
- creating typologies;
- finding associations;
- providing explanations;
- developing strategies.

Comments on ordinary theory and Studies 2 and 3

I used the data set from Studies 2 and 3 to explore ordinary theorising, specifically with reference to research question 2.1 in Table 4.1. In this section, I highlight particular aspects of data collection and analysis that relate to the exploration of ordinary theory. In both studies we deliberately started with discussion about their general experience of their communities. In Study 2, when I facilitated groups I took care to ask questions about what I saw as emerging theories, paraphrase and reflect back ideas for clarification. These prompts, questions and paraphrases are evident in some of the data reported in Chapter Seven.

When I used the *Framework* approach to qualitative data analysis I developed a separate thematic framework around ordinary theorising. To do this, I returned to the notes and attempted to identify the key issues, concepts and themes that I used to set up a thematic framework to guide the sifting and sorting of data. I drew on:

- a priori issues informed by the original research aims and introduced into interviews via the interview guide;
- emergent issues raised by the respondents themselves;
- analytical themes arising from the recurrence or patterning of particular views and experiences.

I started to develop themes using the three methods described above as follows:

- using the *a priori* method I followed up the results of Study 1 and the definition of health as a resource and actively looked for evidence either that participants theorised that increases in physical activity are associated with improvements in health, or vice-versa. I also looked for theorising around the factors that were significantly associated with physical inactivity from Study 1, for example between mobility, facilities and social connections;
- I looked for themes that reflected emergent issues raised by the respondents themselves;
- I looked in the data for unanticipated themes, for example the differences in theorising between acute and chronic conditions.

Study 4: Case study and document analysis of policies and organisations concerned with physical activity in South Australia

Study 4 complements Studies 1 to 3 by analysing case studies and documents about the role of the state and policy processes in order to inform the development of healthy public policy by addressing questions 4.1 and 4.2 in the statement of methodology presented in Table 4.1.

Document analysis

Documents have always been used as a source of information in social research and have been employed in the context of many diverse studies such as quantitative and qualitative studies and case study research. Documents are usually referred to as secondary material because they are not primarily developed for the study in which they are used. Common documents include public documents, archival records, personal documents, administrative documents and formal studies and reports related to the research topic. One can distinguish between contemporary, retrospective, primary and secondary documents. There are four stages of document analysis: identification of relevant documents, data collection, data analysis and interpretations of the findings (Sarantakos 1998).

I use document analysis as part of the case-study method in Study 2 and as the basis of Study 3. Study 3 examines the history of government discourses in South Australia on physical activity during this century, until the 1970s. The study covers the periods involving considerable state interventions, known as the *Nation Building Era* and the period of *Affluence, Medicine and Infrastructure* (Baum 1998). Document analysis is appropriate here because of the time periods involved.

Case Studies

Case study research involves studying specific examples of the phenomenon being investigated, often in the natural environment and over a prolonged period of time and employs many methods of data collection and analysis (Sarantakos 1998). A typical definition of a case study is

> *"... an empirical inquiry that investigates a contemporary phenomenon within its real-life context when the boundaries between phenomena and context are not clearly evident and in which multiples sources of evidence are used" (Sarantakos 1998 pp. 191-2)*

The case study protocol involves:

- an overview of the case study project that is all about the case to be investigated including special characteristics of the research unit;
- field procedures, that is choosing the case to be studied and the ways of gaining access to the research units. This includes key organisations and informants, and resources required in the field;
- case study questions;
- guidelines for preparing the report.

Many aspects of the research design of case study research are similar to those of mainstream social research. For example, in the evaluation of Healthy Cities projects case studies have been embedded within the overall study to assist analysis of factors that help or hinder the implementation of a community focused project (Baum 1998).

I use the case study method to explore the way the social environment has described and influenced physical activity choices. Study 2 is a case study of three South Australian agencies with a history of involvement in physical activity at least dating from the behavioural or lifestyle era in the 1970s. Each agency had personnel and publications that enabled me to construct a history of their approach to physical activity. I am particularly interested in questions that illuminate how governments funded these organisations and influenced their structures. From these questions, I analyse changes in the way physical activity is viewed in the policy processes at different times and across sectors. This component combines semi-structured interviews with document analysis.

Overview of the case study project

In order to achieve the aims of the research I explored a view I was developing based on my general knowledge of a number of organisations involved in physical activity in South Australia since 1970. My developing view was that the strong relationship between physical activity and health at the time (the mid 1990s) was only a recent, perhaps temporary, phenomenon, and that other sectors had been involved quite deeply quite recently1 When I was approached to prepare a chapter on lifestyle approaches to physical activity for an edited collection (MacDougall & Cooke 1993), I used the opportunity to design a case study for Study 4 involving two organisations, Institute for Fitness, Research and Training and Health Development Foundation. Later, in 1999, after working closely with the National Heart Foundation (South Australian Branch) for a number of years I added that organisation as a third case study. At the same time, I revisited the earlier two case studies so all three case studies were current to mid 1999.

My criteria for selecting cases were:

1. The organisation would have a very solid base in physical activity in South Australia and would therefore reflect changes in policy.
2. The time period would be after 1970, to encompass a time when governments were spending money and developing policies related to physical activity, so there would be an opportunity to analysed policy development in a time of rapid change.
3. There would be informants with long experience in each organisation with the organisational memory to provide a history. There would be official documents to assist in the development of a history.
4. I would be able to gain entry to the organisations and be trusted so the key informants would provide me with honest accounts of changes in the organisation and its relationship with government and other key stakeholders.

Field procedures

I listed organisations in South Australia that had an interest in physical activity and considered carefully the criteria described above, in particular criterion 4. [17]

I arranged to interview the key informants, collect official documents and lists of public documents (such as research reports and book chapters) and return to the informants with follow up questions. I took field notes at the time and wrote up in more detail immediately after each interview.

Case study questions

For the first interviews about IFRT and HDF, conducted in late 1994, the guiding questions were:

1. How and why the organisation started, what was the context and who were the key players?
2. What were the original aims, funding sources and organisational arrangements?
3. What were the principal research activities and programs?
4. What changes were there in aims, funding sources, organisational arrangements and principal activities?

5. What was the contribution of influential individuals, events or circumstances to the development of the organisation?
6. What is the current vision for the organisation?
7. How is the organisation contributing to health promotion?
8. What are some key documents, including official publications, research articles and publicly available internal documents?

For the second interviews with IFRT and HDF, I started by acknowledging that, since the first interviews, there had been substantial organisational changes and the questions were:

1. How and why did the organisation change, what was the context and who were the key players?
2. What are the current aims, funding sources and organisational arrangements?
3. What are the principal research activities and programs?
4. What is the vision for the next few years?
5. What are some key documents, including official publications, research articles and publicly available internal documents?

For the interview with the National Heart Foundation (SA Division) in May 1999, the questions focussed on the history of policies relevant to physical activity as follows:

1. How and why did the organisation develop an interest in physical activity policy, what was the context and who were the key players?
2. What were the original aims, funding sources and organisational arrangements for policy development?
3. What changes were there in policy over the years and what drove these changes?
4. What is the current policy and what was the contribution of influential individuals, events or circumstances to the policy?
5. What are the implications of policy changes over the years for the research and programs of the organisation?
6. How is the organisation contributing to health promotion?

---

17 I had experience in the 1980s of both Institute for Fitness, Research and Training (IFRT) and Health Development Foundation (HDF) from my position as Chief Planning Officer, Metropolitan Health Services Division. In that capacity, I had been involved in discussions about funding and structure of the two organisations. I was also on the Research and Advisory Planning Committee of IFRT. I was later to work on a major research project with the National Heart Foundation. All three organisations had long serving senior staff and supporting, official, documents. Each organisation agreed to me preparing and publishing a history.

7. What are some key documents, including official publications, research articles and publicly available internal documents?

Guidelines for preparing the report

I prepared draft reports and showed them to the key informants, taking care to seek advice on the best wording for controversial, sensitive or contested issues. For such issues, I resolved to provide the most descriptive and least evaluative account that was possible and to rely on public documents and statements to guide the wording.[18]

Order of data presentation in the thesis

The statement of research methodology, Table 4.1 in this chapter, sets out the four studies in both chronological order of planning and in the order of the research questions that drive this thesis. In the remainder of this thesis, the data are presented largely in the same order, with one important exception. Both the literature review and analysis of all the studies suggest strongly that physical activity is not just the province of the health sector. Therefore, the next chapter, which is the first data chapter of the thesis, presents the reader with those results from Study 4 pertaining to research questions 4.1 and 4.2. This is to introduce the reader early to the finding that interest in physical activity has moved between and within sectors in South Australia since Colonial times.

[18] The report of the history of IFRT and HDF until 1994 was reviewed by an anonymous peer reviewer and the editor of the collection for which it was written Baum, F., Ed. (1995). Health for all: The South Australian experience. Adelaide, Wakefield Press.

Chapter 5
Physical activity, values, policy and the role of the state: Changing discourses in South Australian history

In Chapter Four I described how Study 4 was planned to complement Studies 1 to 3 by analysing case studies and documents about the role of the state and policy processes in order to answer the following research questions:

> *What does the history of efforts to promote physical activity earlier in the twentieth century tell us about the role and rationale of the state?*
>
> *What does an analysis of organisations involved in physical activity from 1960s to 1999 tell us about policy and the links between physical activity and health?*

My aim here is not to provide a complete history of physical activity and policy in South Australia, but rather to explore history in enough detail to answer the research question about the role and rationale of the state in relation to physical activity. I do this by exploring instances where physical activity policy became the province of different sectors of society at different times.

I use the term *discourse* in the way attributed to Foucault, as a collection of related statements or events exploring how it is that one particular statement appeared rather than another in a particular historical context. He undertook studies (what he calls *genealogies*) and showed how the subject had been socially constructed through related *discourses* (Peterson & Lupton 1996). In this sense, this use of *discourse* is different from the commonsense (and more restricted) definition – for example, as a text, or spoken word, or, as a language in the sense of communication. Discourses have a profound effect on what it means to be human and on the possibilities for individual expression. Medicine has shaped and limited these possibilities through its discourse of the body as a biological entity. Foucault would have considered it important also to subject other health knowledges to critique because he viewed different ways of knowing as different ways of exercising power over individuals. He was critical of the notion that knowledge can be placed in a ranking or hierarchy. Because scientific knowledge is commonly placed at the top of the hierarchy, he subjected it to the strongest critique. He was interested in the way in which technologies derived from knowledge (especially scientific knowledge) are used by various institutions to exert power over people (Peterson & Lupton 1996).

In this chapter I use the term *discourse* to refer to a series of statements or events over time that reflect the dominant and emerging understandings about physical activity and health

(Peterson & Lupton 1996). My analysis of some of the history of physical activity, health and policy in South Australia broadly fits into a description of eras in public health history, so in this chapter I have organised my discussion around these eras (Baum 1998).

Colonialism: Transplanting Britannia through sport

The Colonial era in public health: white settlement to 1890s

Australian responses to nineteenth century public health problems were influenced by British and European responses which focused on controlling disease and attempting to create healthy living environments. These public health reforms responded to the dislocation and disease brought about by rapid industrialisation and urbanisation, especially when in the face of major epidemics of cholera and typhoid. Both in Britain and Australia, the prime tool of nineteenth century public health action was legislation. All Australian colonies passed comprehensive public health acts that were closely modelled on the British acts. There was continuing state government involvement in public health after the establishment of the Commonwealth of Australia in 1901. Around that time, Adelaide's rate of diarrhoeal disease was high compared with other areas of Australia and the infant mortality rate of 140 per 1000 live births, was similar to that of Bangladesh today. There were outbreaks of Typhoid and Bubonic Plague, and the response to the plague was fear and hysteria, and, according to Baum (1998), throughout Australia the Chinese were accused of spreading the disease. There is some evidence that the new Quarantine Acts that were introduced as a result of these epidemics were imposed more rigorously on Chinese arrivals, and the fear of disease from this group of immigrants formed part of the anti-Chinese debate in the nineteenth century[19] (Reynolds 1995).

[19] The nineteenth century was very different for Aboriginal people, who had enjoyed generally adequate health before the arrival of Europeans. In the nineteenth century, violence from Europeans was a significant cause of mortality and newly introduced infectious diseases took a considerable toll. The traditional hunter and gatherer lifestyle was disrupted, and Aboriginal people lost the basic means of production. There was no response to this serious public health problem other than the belief that the Australian indigenous population was clearly not destined to survive Baum, F. (1998). The new public health: An Australian perspective. Melbourne, Oxford University Press..

Transplanting Britannia

> *"Australian sporting traditions appear to have been based on a variety of foundations, many of which can be traced back to the nation's colonial pioneering period. Opportunities to participate in sport, at least in an informal sense, have been generally available to all Australians from the time of original settlement in 1788. The difficult climatic, topographic and social conditions of the early colonies undoubtedly hampered the growth of sport, but did not, on the other hand, totally restrict the transplantation and development of traditional British sporting customs that cherished sport and what it could do to transform boys into men" (Arnold 1996 p. 2).*

According to this argument there was a need for the colonist to maintain traditional culture, and sport was one of the initial agents for transplanting Britannia into the colonies when the familiar games of the mother country became part of the life of the Australian pioneer. When faced with brutal competition for daily existence that produced few winners, the numerous losers could turn to sport for opportunities for success, compensation for daily hardships and the chance for mass involvement and identification with other participants.

Sport was also an important tool to develop the nation by supplying an air of respectability to those parts which were predominantly settled by convicts. The British introduced and promoted sports in their colonies with missionary zeal, portraying British sporting characteristics as superior and essential to colonial life. In 1847, Bell's Life in Sydney reported that "when gentlemen (sic) meet to emulate each other in athletic diversions, moral as well as physical benefits accrue while in the absence of sport leads youths into early excesses and premature senility" (Arnold 1996).

A number of authors agree that organised sport and games expressed social ideals that were fundamental to colonial society (Daly 1982; Elford 1976; Powles 1988). Elford (1976) argues that sport was supposed to establish the social virtues and purposes embodied by manliness. Manliness, as a cardinal virtue of Victorian England, meant for some the fulfilment of a person's potential and had little to do with physical activity. For example, Thomas Hughes, the author of *Tom Brown's School Days*, saw manliness as being straight, loyal and patriotic. Hughes emphasised the connection between sports and manliness when he coined the phrase "a struggling hour at football is worth a year of the common life" (Elford 1976). The first cricket match in South Australia was advertised as "this old English and manly game."

In South Australia in the 1870s the state began to recognise that attendance at school was far from universal and that, for many students (especially girls), education was minimal. The state began to provide money more generously for education, problems of accommodation and teacher supply were slowly being overcome and quality of school life was seen to be rising. The curriculum was set out clearly, involving a core of reading, writing and arithmetic

which was gradually offset by other subjects such as history, geography, singing and needlework. An Inspector of schools, in his report in 1880, noted that in the old surroundings children became tired and listless, but under the new surroundings vitality and energy were generated. These new surroundings included play sheds and poles, bars and cricket implements which provided activities which were excellent and jackets to a schoolboy's (sic) duties, driving away dyspepsia and other miseries that sometimes block his way (Thiele 1975).

Class and race

Sport was also connected with two meanings of *health*. The first was that sport kept the body strong and healthy because of fresh, pure air and exercise of the limbs. The second was about character, whereby sports invigorated men by giving them a balance to life which the non-athletic did not possess. Sport gave men the ability not only to undertake daily activities, but also to assist in the survival of the nation. Sport was seen as a way of preventing the decline of the British race. An early exponent of cricket in South Australia, Bill Bundey, warned an Adelaide audience in the late nineteenth century that

> *"... there is more danger than is generally admitted of a deterioration in our race. Men rendered puny, sickly and unhealthy by neglecting Nature's laws can hardly expect vigorous or hardy offspring, and in such an enervating climate as ours this may prove a very serious moment in the not very remote future. It behoves us to see that the natural lassitude induced by our summer climate does not tempt us to forget or ignore those qualities that enabled our ancestors to find the greatest pleasure in pastimes from which the timid and effeminate shrink with dread ..." (Elford 1976).*

Bundey also thought that sport promoted equality, educated people about democracy, led to both co-operation and self reliance and promoted loyalty and pride in the race. Moreover, all women passionately admired men who played sport!

Daly (1982) relates some special characteristics of South Australia to the development of sport, starting from the position that sport and games are closely interwoven with the structure of the broader society, and that analysis of a community at play can reveal much about its social structure and value system. In the years from settlement in 1836 until the 1850s the pioneers were able to mould the infant community into a reasonable copy of the society they had left. Sport was divided along class lines. Steeplechasing, polo, hunting (for kangaroos, not foxes) and racing were the sporting activities of the colonial elite. For the working class, the inn or tavern was the venue not only for drinking and socialising, but also for recreation (Stoddart 1988). Innkeepers were entrepreneurs for sporting events, hosted embryonic sporting clubs and gave cover to early bookmakers. Examples were footraces,

putting-the-stone, the high leap, climbing the greasy pole, catching the greasy pig, skittles, boxing, billiards and quoits. The middle class settlers were critical of the sports and pastimes of the working class because of their association with gambling and drinking. The middle class campaigned for *rational recreation*, involving organised team games such as cricket and football which were seen to be manly, moral and in keeping with the ideal of *muscular Christianity* prevalent at that time in England. In the latter half of the nineteenth century amateur sporting organisations developed in South Australia and in England in order to move recreation for the working class from the pub to the playing field (Daly 1982).

Commentary on policy

In this Colonial era physical activity was principally discussed in terms of sport and was directly identified with the development of economic, moral and political values that mirrored those of Britain, the colonial power. It is reasonable to assume that, due to the nature of work and transport at the time, the authorities did not consider low levels of physical activity to be a health problem. This may explain why, although sport was not a central part of the public health strategies of the time, there was a connection between sport, the health of the nation and the purity of the race, and thus sport was primarily seen as a masculine endeavour. Sport was divided along class lines and was predominantly based around the need for boys and men to be strong for the Empire. The sectors that were involved in sport were the privately operated hotels, amateur sporting organisations and schools.

Nation building: Militarism, education and national fitness

The Nation Building era in public health: 1890-1940s

This is the period that Baum (1998) describes as aiming to contribute to the building of the nation. Public health was concerned with strengthening the nation by improving the health and fitness of the white citizens. Maintaining health was seen as part of each citizen's duty, to be encouraged by the state through school medicine examinations and open air exercises. The doctor responsible for establishing school inspections in Tasmania (Elkington), said that he looked forward to the day when the acceptance of a doctrine of national physical morality will cause preventable diseases to be regarded as a crime and when the preservation and protection of health will take its place in the daily round of unquestioned duty to the state and to one's neighbours (Baum 1998; Powles 1988).

Eugenics, which formed a major part of this nation building era, was concerned with improving the white, or European, stock of the country at a time when many white

Australians believe that aboriginal people would soon die out and that the role of civilised whites was to smooth the pillow of the dying race. It was believed that this was inevitable because of the continuing influence, derived from Darwinian notions of evolution, that superior races prosper as a result of the survival of the fittest (Baum 1998).

The foundation idea that underpinned the actions of Australian governments since Federation in 1901 was the White Australia policy, which was established as the first substantive law passed by the federal parliament as a mark of national individuality within an Empire of coloured races. White Australia was not just a policy, it was a creed which became the essence of Australian nationalism and the basis of national unity and was endorsed by both sides of politics. The first Prime Minister, Edmund Barton, saw a White Australia as protection for the future against the threat for a small number of white people surrounded by Asia and the Pacific. Barton argued that for the unity of Australia there had to be a united race. The united race means that its members can intermix, intermarry and associate, while being inspired by the same ideas and possessing the same general character, tone of thought, constitutional training and traditions. As well as the White Australia policy Australian policy for the early part of the century incorporated faith in government authority, egalitarianism, judicial determination in centralised wage fixing, protection of industry and jobs and dependence upon a great power (first Britain, then America) for security and finance (Kelly 1992).

Militarism

Towards the end of the nineteenth century, the experience of war and the needs of the military began to assume more and more importance for physical education, especially in schools. For example, national regeneration was the aim of physical training in high schools in Denmark after defeat in war in 1864, marshalled by the slogan *What has been lost without must be won within.* National regeneration was sparked by concerns about the high rates of rejection of recruits by the military because of physical deficiency. Between 1864 and 1867 recruits for the army in Britain had been rejected on the physical grounds at the rate of 408 per 1000. The outbreak of the Franco Prussian war on the continent of Europe in 1870 indicated a need for a reservoir of fit citizens (McIntosh 1962).

Physical education in Australia at the turn of the 20th-century took much of its initiative from Britain, which was responding to the challenges the Boer War and German industrial and military expansion through the re-organisation of the education system. The role of education was to train the child through secondary and technical education to become a more efficient and more effective worker who could build up the industrial and agricultural strength of the nation. Calls to the importance of the Empire were made, arguing that all members of the Empire should make themselves fit by education to play their part in the world struggle. As a result, a form of physical education characterised by drill and exercise became prominent in

the English school curriculum. This physical education became geared to preventive exercising and military fitness as part of the overall plan of the so-called *new education* that aimed to create a condition of national fitness equal to the demands of the Empire: administrative, commercial, educational, physical, moral, naval and military fitness.

Australian education departments took their cue from Britain and displayed widespread interest in the new education, which coincided with the Boer War. Education departments were quick to implement a system of military drill and exercises into their schools. Drill was introduced into South Australian schools in 1903, aiming to be a stimulus to punctuality and a ready obedience to orders (Thomas 1975). These ideas fitted neatly with the progressive era in public health, in which attention moved from environmental reform to promotion of health of individuals by assisting people to engage in rational behaviour to avoid the assault of the newly discovered germs (Roe 1984).

The rise of the education sector

By 1909, however, disagreements were emerging between the education and military sectors about the goals of physical education. Educational authorities sought to break with the military tradition and move from an exclusive emphasis on mass marching and drill to taking into account the physical needs of the children. In response to these moves, in 1910 the Australian Minister for Defence convened a meeting of the state directors of education in order to discuss physical training. The defence department was eager to secure the co-operation of the education departments in implementing its proposed new Junior Cadets scheme and saw an upgrading of drill as important in providing the basis of physical fitness to supplement its proposed cadets system. The education departments, on the other hand, were eager to adopt physical training in Australian schools to bring them in line with British developments in physical education and to overcome their critique that drill had seemingly little beneficial effect on children. However, to achieve this, the education departments needed to support of the defence department in the initial provision of trained personnel. As a result, there were moves towards a more educationally based physical training program under the guidance of the education departments. In 1911 it was thus agreed that drill should be replaced with a new physical training program modelled on the syllabus of physical exercises for schools. This new system would include swimming, organised games and a comprehensive program of exercise, to be conducted by teachers.

At the same time, with the passing of the Commonwealth Defence Act in 1911, Junior Cadets were introduced into Australian schools. The 1911 Act provided that each boy, upon reaching the age of 12, was required to do two years training as a Junior Cadet. The defence department provided army officers to instruct the teachers who in turn supervised the cadets' drill. In many schools the officers conducted the training themselves. The training also consisted of physical exercises and marching drill. Thus, after 1911 there were two distinct

systems of physical training in schools; one military and the other educational. In many cases the systems became combined with the military influence being the strongest. The Junior Cadet scheme was in place until 1922 and the Commonwealth government's interest in physical education, and its connection with the military, was rekindled by the threat of war in the 1930s (Thomas 1975).

National fitness and the emergence of the health sector

The health sector began to become more directly involved with physical activity through the National Fitness movement in Australia, which was launched under the auspices of the National Health and Medical Research Council which, in March 1937, commissioned a report on physical fitness from the Director-General Of Public Health in New South Wales. In response to the report, the fifth session of the National Health and Medical Research Council moved a resolution stating:

> *The Council is convinced of the urgency and importance of establishing a national organisation which shall have as its main objective a standard of physical fitness (Thomas 1975 p.21).*

Education and health authorities throughout Australia had for some time been advocating the need for a program of national physical fitness, and fully supported the move by the NHMRC. Education and health authorities preferred a school and community approach to fitness, rather than the military approach of 1911 to 1922 when the Commonwealth administered the Junior Cadet training scheme (Thomas 1975).

Also in 1937, the 25th session of the League of Nations met to consider the report of its Commission into health and physical fitness which stressed that for any system of national physical fitness to be effective, it must have the co-operation of both education and health authorities. The Commission argued that the chief objectives could best be obtained through physical education in the schools and communities, and through voluntary organisations interested in youth and sports. In addition, the Commission recommended the training of leaders and teachers to be undertaken by universities. Britain adopted the recommendations by the League of Nations in 1937, followed by New Zealand and Canada. The Australian government's response was to commence discussions at ministerial level with both education and health authorities in order to administer a system of national physical fitness. Representatives from both health and education sectors in each state agreed to give total support and each sector prepared submissions to establish the national program under the auspices of their respective departments (Thomas 1975).

In 1938, the Commonwealth decided to run the new program from the Commonwealth Department of Health, with the various education departments agreeing in principle to give the fullest co-operation. The Commonwealth Minister for health at the time immediately

called a meeting of state representatives to establish a National Co-ordinating Council for Physical Fitness, as the policy-making body for the physical fitness program. The first session of the National Co-ordinating Council for Physical Fitness was held in Melbourne on January 5 1939. The opening address stressed the importance "from a community and national standpoint of the creation of a better standard of public health and community fitness." The Council in 1939 was re-named as the Commonwealth Council for National Fitness. The South Australian National Fitness Council was established in October 1939 with a Commonwealth grant. It took its lead from the National Council and in 1940 changed its name to the National Fitness Council of South Australia. Bert Apps, the first secretary and organiser was later to head the physical education department at the University of Adelaide (Thomas 1975). Thereafter, close relationships developed between the National Fitness Council, the University of Adelaide, Adelaide Teacher's College and the Education Department. These relationships became important for the development of the Institute for Fitness, Research and Training that I describe later in this chapter.

These developments were consistent with the emphasis at the time on fresh air, walking, rambling and getting back to nature. South Australian government publications at the time imbue these ideas with a distinctive rural, romantic mythology (Cumpston 1939; Apps 1940; McKay 1942; Thompson 1947).

Commentary on policy

In this era there was continued emphasis, following the Colonial era, on the broader economic, moral and political values that sport and exercise brought to the colony. One difference from the Colonial era was the strong influence of the military sector that arose from Britain's desire to defend the Empire from attack, principally in response to tensions in Europe. This was a natural response by an Australian government with constitutional link and reliance on the British Empire. In the first decade of the twentieth century the government and the military viewed schools as principal venues for drill and physical education designed to strengthen the industrial and military capability of the Empire. However, subsequently the education sector disagreed with the narrow, military, focus of physical education and successfully argued for a more broadly based physical education curriculum.

In the 1930s the Commonwealth government began to exert an influence on fitness policy. The nature of international influence changed in the 1930s, from reliance on the needs of Britain as the home of the Empire, to the influence of the League of Nations.

Affluence, medicine and infrastructure: exercise and risk factors

The Affluence, Medicine and Infrastructure era in public health: 1950s to early 1970s

From 1945, post-war Australia experienced a period of considerable affluence. Unemployment was low, immigration high and per capita income growing while successive governments continued to invest in social infrastructure. In particular education and the provision of health services expanded considerably. Public health has been described as being in an *in between* period, where infectious diseases were seen as less threatening, clean water and sewerage was assured to most Australians and lifestyle diseases were not yet recognised as the problem that they would become. The public health services in each state were mainly concerned with policing standards for clean air, water and food and providing immunisation services. In this period, there was a rapid growth in medical therapies, including new drugs, diagnostic techniques and surgical and medical interventions. It was a golden age for medicine because, in western countries, medical developments occurred when economies were expanding and could afford to conduct medical research and pay for the development of health services to use the new discoveries (Baum 1998).

The emerging link between exercise and medicine

When summing up the third British Empire and Commonwealth conference on physical education, held in Perth, Western Australia in 1962, Associate Professor Fritz Duras (Director of Physical Education, University of Melbourne) noted that a unique feature of the conference was that for the first time there was official participation by the medical profession, when, on one day of the conference the Australian Sports Medicine Association held its annual meeting and one of the addresses included *The performance of the heart in exercise*. Duras concluded his discussion by saying:

> *I am convinced that the contact with the sports medicine association is by sheer necessity of great benefit for the development of physical education and for our professional progress. On the other hand, physical education itself has much to contribute to sports medicine. It is therefore in the mutual interest of these two disciplines that we hope for a continuation of the contact made and the co-operation shown at this conference (Duras 1962 p. 271).*

Another presentation at the British Empire and Commonwealth conference was by Bert Apps, an influential figure in physical education in South Australia who at the time was in charge of the physical education department at the University of Adelaide. Apps' (1962) paper argued that a University Health Service could have a very broad influence on the future health of the public and in it he described his view of public health. He noted that not so long ago public health authorities had been concerned with the control and organisation of the environment through legislation and regulation. Now (ie in 1962) public health attention was being directed towards the individual as the fears of Black Death visitation abated and people complacently accepted the successes of medicine in controlling the occasional outbreaks of disease. He argued that the new concentration on individual and personal health required attention to attitudes, not just knowledge. Apps saw this is an educational issue, and argued that the modern concept of health required action by individuals working in relatively small groups, and the best of these groups was the family. He then argued that University health services required medical staff but, in order to raise standards of individual health, there was a need for health promotion which he considered to be a team project. Led and inspired by the medical officer, the health work force must include many graduates, the more obvious ones being from the dental, social science, physical education and science faculties. However other graduates were necessary; teachers were a basic necessity of modern health programs as the two professions, medicine and education, worked together to make health education a reality (Apps 1962).

In Britain there were also links being made between exercise and medicine. In 1962, for example, the British Medical Association stated that insufficient exercise in youth and early middle-age was a major causative factor in coronary heart disease and a notice appeared in the window of a bicycle shop saying *"cycle each day keep thrombosis at bay"* (McIntosh 1962).

The creation of the National Heart Foundation in Australia: Prevention of heart disease gains a place on the policy agenda

In an account of the history of the National Heart Foundation, its former medical director from 1961 until 1980 described how, in the late 1950s, those planning the development of the National Heart Foundation viewed the environment in relation to what we now describe as community health promotion campaigns:

> *There was an increasing incidence, which was indeed an epidemic, of serious and fatal heart disease of which the cause was unknown and for which there was virtually no treatment. There was urgent need for increasing research into causes, prevention and treatment.*

There was very little that the individual in the community could do to avoid the perils of heart disease and little basis for a community education program.

There would be considerable benefit to the community from a professional education program improving the practice of such methods of diagnosis and treatment of heart disease (Reader 1996 p.5).

Reader (1996) noted that from about 1938 to 1958, cardiovascular disease had displaced infectious diseases as the main cause of death and had become a major public health problem. However, these changes largely went unnoticed. The increasing number of deaths due to heart disease were unnoticed because high blood pressure, atherosclerosis, strokes and current coronary heart disease were generally regarded as part of growing old. It was believed that *people were as old as their arteries* and that the increase in deaths from heart disease was the consequence of increased life expectancy in developed countries. Until the 1950s, heart patients were regarded as high-risk and fragile and treated as chronic invalids who needed prolonged bed rest.

In 1963, a British cardiologist published an analysis purporting to show that the increased numbers of deaths from heart attack in Britain were due to the ageing of the population mainly caused by the saving of younger lives 40 years before. He concluded that they had been no increase in the force of the disease in the community and thus there was no environmental factor peculiar to the lifestyle of the times responsible for the increase in deaths. This debate was critical for the National Heart Foundation, and an Australian analysis was conducted which looked at heart disease rates for men and women in five-year age groups from 1950 to 1962. For men of each age group under 80 the rates increased, not just the rates in the older people. There was a similar trend for women (Reader 1996).

Another important piece of evidence was provided by the landmark *Framingham study* in the United States. This longitudinal study, starting in 1948, aimed to identify men and women between the ages of 30 and 39 years who showed no evidence of coronary heart disease and to report all details of their health and lifestyle and to re-examine them every two years for occurrence of heart disease. The study revealed lifestyle factors that were associated with risk of coronary heart disease, including increased blood pressure, elevated blood cholesterol, cigarette smoking, overweight and sedentary living. These results were confirmed by continuing data from the *Framingham* study and from other studies in America, England and Europe. By the mid-1960s it was accepted worldwide that coronary risk factors could predict the probability of developing coronary heart disease; in other words it was not simply a matter of ageing (Yeatman 1990).

These changes were important for the National Heart Foundation, because at its inception it had no real message to offer about prevention, and very little about treatment of coronary

heart disease. Within a few years, things changed and the National Heart Foundation was able to promote modifications in lifestyle and advances in treatment.

These changes had particular relevance for the role of exercise in medical treatment following heart attacks. Throughout the ages ailments involving the heart had been regarded with anxiety and even dread. This is particularly so in respect to heart attack, as shown by an example from a 1947 British textbook of medicine:

> *After he has been confined to bed for two months, an extra pillow may be allowed; a week or so later the bed may be gradually more raised and during the last two weeks passive graduated exercise of the body and limbs and breathing exercises may be employed. After the period in bed the patient should be moved to a couch to which he should be confined for at least two weeks (Reader 1996 p. 158).*

The text goes on to say that patients should be told to live within the limits of their diminished cardiac reserve for the rest of their lives. It was in this climate that the National Heart Foundation began to advocate the rehabilitation of heart attack patients, aiming to assist early return to work and a normal lifestyle. In order to do this, the National Heart Foundation established rehabilitation centres which were successful in getting people back to work. For example, a 46 year-old married man who attended the rehabilitation unit in Hobart had spent the last seven years since the heart attack at home and was receiving a pension. He was anxious and depressed. Tests showed evidence of the heart attack but no residual physical impairment. A normal result in a vigorous exercise tolerance test surprised and delighted him. He began working by doing light gardening work and went on to find a permanent job. This was typical of the experience of many patients who were able to return to work, continue working and to resume a more normal lifestyle. It was this period of medicine that Reader (1996) describes as the *golden age of cardiology*, and one of its key components was supervised physical exercises after heart attack.

On the basis of evidence from epidemiological studies and community trials, the National Heart Foundation was able to craft medical interventions and health promotion messages which were to change society's views about treatment and rehabilitation following heart attack.

Lifestyle: physical activity programs and the role of government

The lifestyle era in public health: late 1960s to mid 1980s

In Chapter 2 I provided detailed description and analysis of the lifestyle approach to public health. Although Baum (1998) argues that the 1970s saw the discovery of lifestyle and its impact on health, I argue in the following sections that the lifestyle argument in relation to physical activity has been promulgated throughout the century. However, this argument was not principally within the health sector, but driven from the education and military sectors.

Institute for Fitness, Research and Training (IFRT)[20]

In 1969 IFRT was formed within the Physical Education Department of Adelaide Teacher's College. The founder and head until 1999, Tony Sedgwick, was influenced by post-war European ideas of promoting the health of the community through physical activity. In particular, Sedgwick was influenced by the Scandinavian and German traditions of systematic physical education (Andree-Larsen & Malmborg 1970) in his undergraduate years at Birmingham, the only University in the United Kingdom at the time to offer a degree in physical education. He later spent six months studying Swedish physical education in Stockholm and a year at the Institute of Occupational Health in Helsinki, Finland and worked with Bert Apps at both Adelaide Teachers College and the University of Adelaide.

In Europe he observed that community health and fitness programs had a long tradition of support from community organisations, researchers, educators, governments, business and insurance companies. Fitness programs were not merely related to sport, but aimed to improve the health of the community. When he moved to Australia, Tony Sedgwick reflected on the systematic European approach to fitness as he observed the start of the fitness boom in 1969. He concluded that there was little community based activism and an un-systematic approach to facilities, training and programs and moved to establish IFRT.

The original aims of IFRT were to:

- contribute to health through physical activity by conducting fee paying courses and fitness tests for the community;
- contribute to the understanding of physical activity and human biology as a result of academic research combined with practical service experience;

---

[20] Much of the information in this section is from personal interviews I conducted with Tony Sedgwick from IFRT and Dr Neville Owen, then University of Adelaide, in 1993. In addition, they made available papers and references.

- provide a base for the interdisciplinary research seen as essential to gain that that understanding.

In 1969 IFRT started with general fitness programs for able-bodied men with 100 participants enrolled in programs. Programs for women were developed in 1972. Until 1973, Adelaide Teachers College provided premises and facilities for IFRT on the College's city campus. In 1973 the Institute established headquarters in North Adelaide, in facilities provided by the College. From the outset course fees made a significant contribution to the Institute's income. Contributions by governments commenced in 1974 with a Federal Labor Government grant from the health department for a full time assistant director. In 1976 State Government funding was provided through the state Department of Recreation and Sport. From 1978 the health department of the Federal Government provided support. In 1982 IFRT became independent from Adelaide Teacher's College, which stopped paying the Head's salary. IFRT then received funding through the South Australian Health Commission and continued to occupy the building rent-free.

Throughout the 1970s IFRT expanded its fitness programs and the number of participants grew to over 1000 at any one time. Research was initiated on the effect of physical activity on fitness and risk factors for coronary heart disease. Programs diversified to suit the needs of different groups, for example: heart care, diet, weight programs, chronic fatigue, groups for alcoholics, back care, Tai Chi, yoga, pre and post natal classes, stress management and musculo-skeletal problems. IFRT joined in the corporate fitness trend from 1973 to 1988, conducting fitness programs for over 60 groups from industry.

Initially, classes were held in and around IFRT's base adjacent to the parklands near Adelaide's city centre. During the 1970s, IFRT expanded its programs to a number of suburban venues including Colleges of Advanced Education and University campuses. Home exercise programs were also established, with groups organised in the homes of class members with the providers of those facilities receiving free membership in the class.

The Institute's research on fitness has been published widely in international journals. It was originally inspired by international work on human adaptability, including fitness, heart disease musculoskeletal status, psycho social stress, diet and bio-mechanics. IFRT's best-known research project is the *Adelaide 1000 study*, conducted between 1982 and 1987. Collaborating with IFRT on the project were the University of Adelaide, Flinders University of South Australia, the Institute of Medical and Veterinary Science and the Commonwealth Scientific and Industrial Research Organisation. The project examined the interaction between activity, diet and risk factors for coronary heart disease by conducting a longitudinal study of 571 men and 430 women aged between 20 and 65 years who responded to newspaper advertisements for a four year health and fitness program. After an initial assessment participants joined a fitness program and were re-assessed after four months,

two years, four years and eight years. The research was funded by grants from the National Heart Foundation, the Menzies Foundation, the Commonwealth Department of Health, the South Australian Health Commission, the National Fitness Council and donations from private individuals (Baghurst, Sedgwick & Strohm 1985; Sedgwick, Smith & Davies 1988; Sedgwick, Thomas, Davies, Baghurst & Rose 1989; Vita 1990).

State government funding for the Institute was phased out from 1987 and IFRT then had to pay rent for the building. Then a collaborative arrangement was negotiated with the private health insurance company *Mutual Community* in which IFRT retained sole responsibility for research, Mutual Community was responsible for the management of the service programs, provided a chairperson for the Institute's Board and paid the Head's salary. IFRT remained an incorporated body. In *1988 Mutual Community* started generous subsidies to members of its health insurance scheme who joined IFRT's fitness programs. *Mutual Community* ceased to manage IFRT's programs in 1990 but continued its subsidies to its clients who participated in fitness programs.

Health Development Foundation (HDF) and subsequently Children's Health Development Foundation (CHDF)[21]

In 1976 the SA Education Department began a major review of the physical education curriculum in response to disturbing reports about the health of Australian students and growing doubts about the effectiveness of physical education practices in schools (Maynard, Coonan, Worsley, Dwyer & Baghurst 1987). The Physical Education Branch of the Education Department recommended that the review examine programs from France and Canada that incorporated daily physical education in the school curriculum. Following the review, the Branch conducted a pilot program at Hindmarsh Primary School, near Adelaide's city centre. The pilot program found that curriculum time devoted to daily physical education benefited the school as children's' academic performance improved and they developed a more positive approach to school.

The pilot program was extended to a randomised control trial in seven schools, and again the results were positive (Dwyer, Coonan, Leitch, Hetzel & Baghurst 1983). The group of children who received intensive daily physical activity (fitness) were compared with one group who received a skills based daily physical education program (not fitness based) and a control group. The fitness group showed increased endurance, reduced body fat, improvement of teacher rated classroom behaviour and maintained their academic performance. The results were received enthusiastically by teachers and parents in 1979 and by 1980 daily physical

[21] Much of the information in this section is from personal interviews I conducted with Peter Woolley and Barbara Smith from HDF in 1993. In addition, they made available papers and references.

activity was adopted in 60% of SA primary schools (Maynard, Coonan, Worsley, Dwyer & Baghurst 1987).

The research continued, and throughout 1980 and 1981 support from senior officers of the state Education Department was essential and helpful. Later in the research phase, the South Australian Health Commission provided crucial support, suggesting that a proposal be developed for an interdepartmental organisation to advance the current work (Maynard, Coonan, Worsley, Dwyer & Baghurst 1987). During the randomised trial collaboration began between the Physical Education Branch and the Commonwealth Scientific and Industrial Research Organisation (CSIRO); in particular between Dr Basil Hetzel, Dr Terry Dwyer, Dr Wayne Coonan and Dr Anthony Worsley. The collaboration added a connection with the health system and research methodology based on experimentation and epidemiology.

The development of the Body Owner's Manual in 1980 proved to be a landmark. The Manual combined information on physical fitness, health, nutrition and self directed behaviour change strategies such as goal setting and self monitoring. The Body Owner's Manual was important because it was designed to maximise the gains in children's health by providing children with a context for being physically active. It achieved this by making clear the links between daily physical education, health knowledge and behaviour change strategies of goal setting and self monitoring. Research involving the Body Owner's Manual recommended that programs should be tailored to the specific needs of girls. The research found that whereas strength and endurance activities that traditionally formed the basis of daily fitness programs were effective for boys, girls responded better to more rhythmic exercise to music (Worsley, Coonan, Leitch & Hetzel 1981).

In December 1982 Dr Basil Hetzel from CSIRO and Dr Wayne Coonan from the Education Department were encouraged to prepare a paper for the State Liberal Government for what was then called a Health Development Unit. The new State Labor Government's Ministers of Health and Education agreed in March 1983 to a five year trial in southern metropolitan Adelaide, aiming to reduce risk factors for chronic disease (Maynard, Coonan, Worsley, Dwyer & Baghurst 1987).

The Health Development Unit was established in 1984 'to carry out a lifestyle intervention for the benefit of the population of a defined geographic area with special emphasis on curriculum based programs for children and adolescents' (Maynard, Coonan, Worsley, Dwyer & Baghurst 1987 p. 138). The main objective was to decrease risk factors for cardio-vascular disease; primarily poor endurance fitness, smoking, excess body fat, high blood pressure and stress, with improved diet and physical activity as intermediate objectives. Programs aimed to involve, in order, students, teachers, parents and the local community (Maynard, Coonan, Worsley, Dwyer & Baghurst 1987).

The Health Development Unit was jointly co-ordinated by Dr Wayne Coonan from Education and Dr Ted Maynard from Health. The third state government department involved, Recreation and Sport, was represented on the major policy committee which was chaired by Dr Basil Hetzel, then Chief of the Division of Human Nutrition, CSIRO. The Unit was administratively part of the Curriculum Directorate of the Education Department. Staff were seconded to the Unit from their home departments and the Unit was based in the regional shopping centre of Noarlunga, in Adelaide's rapidly growing southern suburbs.

The Unit identified clusters of primary schools that provided students to secondary schools. Then they mapped important links such as large companies employing parents of the schoolchildren and local suppliers of food to schools and parents in the hope of influencing these links to develop a health conscious community. This was a period of high productivity that built up networks and used well-designed health promotion in communities of interest.

In 1984 the State Government Department of Recreation and Sport ceased its involvement and the Unit became a self-managing health unit incorporated under the South Australian Health Commission Act. It changed its name to the Health Development Foundation (HDF). For the first time, HDF started to run programs in Adelaide's northern suburbs, which, like the south, were growing quickly and were socially disadvantaged. However HDF's budget did not allow it to commit the same resources to the clusters of schools and community links according to the model developed in the southern suburbs. As a result, HDF pursued Commonwealth and State Government grants. HDF continued to focus on clusters of facilities. For example, the Elizabeth Food and Health Project involved a community development approach in conjunction with local government to improve knowledge about nutrition and work with local retailers to sell better quality food. This was in turn linked to local work in schools with the Body Owner's Manual. In addition, HDF designed large-scale promotions to bring together key links in the community, for example, picnics with a health focus and children's swimming days.

In the late 1980s government agencies were encouraged to work with, and raise money from, the private sector. In this climate, in 1989 Health Development Australia was formed as a joint commercial venture between the South Australian Health Commission and the State Government Insurance Commission (SGIC), a health and general insurer which also ran private hospitals. The aim was to commercialise the worksite and rehabilitation activities of Health Development Foundation and to generate profits to feed into the school based activities of the Health Development Foundation thereby ensuring long-term viability of the programs. Health Development Australia legally separated from the South Australian Health Commission and became a subsidiary of SGIC, which was later sold by SGIC.

The National Heart Foundation of Australia (SA Division)[22]

This section is primarily a history of the South Australian Division of the National Heart Foundation (NHF) is an incorporated, non-government organisation with a national office and divisions in each Australian state. There are likely to be significant differences in the history of other states. It was established in Australia, modelled in part on the American Heart Foundation (established 1948) and the Canadian Heart Foundation (established 1956). In South Australia, a provisional committee was formed in August 1958, chaired by the Lord Mayor of Adelaide. The members of the first committee were an influential cross section of the Adelaide community and the first meeting of the Board of Directors was held on 24 February 1960. In its first year, the National Heart Foundation established a centre in North Adelaide for rehabilitation of patients after heart attack, established a community education program in conjunction with the national office and other state Divisions, distributed *National Heart News* through chemist shops and a mailing list and developed a travelling exhibit based on short films produced by the American Heart Association. Opportunities were taken to present messages in the media wherever possible. The annual cardiology week commenced, conducted by the cardiac department of Royal Adelaide hospital. Fund-raising was very successful, with South Australia tying with Tasmania for the fund-raising prize, having raised over three times the target amount (Reader 1996).

Programs and policy are generated and overseen by a Board of Directors. A National Cardiovascular Health Advisory Committee reports to the Board, and is in turn responsible for committees which advise on policies and programs. NHF is funded by public donations and fund-raising and, although it attracts short-term research and project funding from governments, does not have continuing government funding. While governments are not officially represented on policy committees, there are very close links with governments; links which have been enhanced by the location of the national office in Canberra and divisional offices in state capitals. There is strong input into policy development process from honorary health professionals, in particular cardiologists. NHF assesses the latest scientific evidence, including information from governments, when it is considering policies programs and public statements.

Physical activity was on the agenda of NHF right from the start in 1960. At that time, physical activity was considered within the medical model by making a strong link to rehabilitation of heart patients: for example prescribing exercise after heart attack and placing the policy context within the Exercise and Rehabilitation Committee. By 1980, in keeping with the running boom at that time, images in the annual reports were of vigorous activity with

---

[22] Much of the information in this section came from a personal interview with Cheryl Wright from NHF in 1999. She also provided papers and references.

photographs of elite cyclists and runners. However, it is very important to note that at the same time the NHF was promoting moderate activities such as walking. In the 1980s behavioural approaches to physical activity and emerging epidemiological studies were suggesting that physical inactivity should be seen as a risk factor for heart disease and that government policies should focus on encouraging sedentary people to be moderately active. The NHF played its part at this time by broadening its focus from physical activity as an aid to the recovery of heart patients to a means of protecting against heart problems. In 1983 the physical activity policy was updated and included emphasis on people with and without cardiovascular disease. In 1984 the Exercise and Rehabilitation Committee was reconstituted as two committees, the National Physical Activity Program Committee and the National Rehabilitation Committee. In 1988 the policy affirmed the public health goal of influencing sedentary people to take up moderate physical activity (Wright 1999).

Commentary on policy

1969 - 1986: Incremental changes involving collaboration between supportive government sectors

From their inception until 1986 there was a remarkable consistency in the service policies of IFRT and HDF, despite growth in funding, organisational changes and the changing involvement of sectors of government. In turn, broader government policies supported the collaboration and experimental nature of the organisations.

As I have noted, IFRT and HDF were able to keep a great many of their original aims alive. This reflects in part the commitment of the individuals to their theoretical approach to research and health promotion programs and to strategies they have found to be successful. In the case of both IFRT and HDF, people who initiated the programs stayed with the organisations in leadership positions, thereby providing consistency. The service policies of the organisations continued to be consistent with health policies and policies about the role of government.

However, the continuing involvement and commitment of senior people in small organisations is insufficient to explain long term consistency of policy. Health service policies of the two organisations existed in the broader context of health policies. In the public service climate of the time, Raftery (1995) notes that in South Australia community health was not centrally planned and experimentation was valued. It was common for small, local services to be administered by a management committee to fulfil local needs (Raftery 1995). This culture benefited IFRT and HDF as their aims were not prescribed by a central plan, the innovations they represented were valued and they could (in the absence of strict criteria to the contrary) claim relevance to current trends in health including the Community Health Program. Raftery (1995) reports that in South Australia the 1974 Community Health Program enjoyed a

comparatively high level of support; even between 1975 and 1982 when the federal Liberal-National Party government abolished specific grants to the Community Health Program.

As a result, from the early 1980s till about 1986, IFRT enjoyed significant, reliable funding from the South Australian Health Commission and HDF was established. This was a time when support for the Community Health Program was continued in South Australia and, as Raftery (1995) points out, additional money for community health was allocated to the South Australian Labor Government from the Federal Labor Government after its election in 1983 with Bob Hawke as Prime Minister. Funding was in the form of annual global budgets, enabling IFRT to plan a range of initiatives over a number of years. Government funding therefore laid the foundations for IFRT and HDF to expand and develop as independent organisations who managed their own affairs and were able to secure more funding by applying for research grants and project funding from a stable base.

There is yet another level of policy, that of values about the role of government and the public service. Certainly from 1970 till the mid 1980s, a succession of state and federal governments accepted that they had a significant role to play in planning and delivering health services and were comfortable with the collectivist language and principles that were later to be formally codified in the Ottawa Charter. This was the era when the bureaucracy performed a co-ordinating function by rule and hierarchy, with work oriented standardised products and with rational decision making and administration (Yeatman 1997). This also coincided with the first wave of reforms to the public service, first seen in South Australia and New South Wales in the second half of the 1970s. Some commentators described the first wave of reforms as part of a social democratic urge to create accountable management and involved experiments with corporate planning and program budgeting (Considine & Painter 1997).

In Chapter Three I introduced Considine's (1994) description of the role of actor networks in policy development. IFRT and HDF developed strong, collaborative, actor networks between sectors of state and federal governments that were reflected in research publications and the administration, funding, planning and delivery of programs. One link between the actor networks for each organisation was Neville Owen, who published research with authors from IFRT and HDF. South Australia was conducive to the development of strong networks. In South Australia health workers freely talk of Adelaide's advantage in combining the facilities of a large city with the networks of a country town. Networks and collaboration also fitted the aims of the Community Health Program. At the time, government departments valued collaboration because it helped departments to initiate a joint venture which, separately, they may not have been able to fund. There was not yet pressure to define and promote the unique *core business* of each sector and to frame shared objectives as *duplication*. Each sector of government involved had bureaucratic structures comprising middle level managers,

planners and policy makers who were encouraged to facilitate inter-sectoral collaboration. There were common values among actors in the networks. Moreover, the values were not just Australian or South Australian, they were shared by opinion leaders overseas. Researchers, academics, practitioners and politicians have regularly travelled overseas seeking new ideas to bring back and adapt to South Australian conditions. Both organisations drew on overseas experience to support and legitimise their activities. IFRT was established as a direct result of a migrant to Australia bringing a European perspective on health and exercise to a receptive context. The programs that grew into HDF started life citing research results from programs in Europe to focus on daily fitness in schools. Neville Owen's research with both organisations was influenced by cardio-vascular risk reduction programs and research methodologies from North America, where he first worked as a clinical psychologist and later visited regularly to conduct research. The research methods used by HDF to evaluate its early interventions conformed to a dominant public health standard in the randomised control trial. In the 1970s and early 1980s both organisations were well placed to draw legitimacy for their policies from the rise of behavioural and lifestyle models of health promotion. HDF's work in two geographical communities enabled it to draw support from the ideas that culminated in the Ottawa Charter.

The consistency of values underlying policies and actor networks helps to explain why the health service policies of IFRT and persisted amidst changes in sources of funding and in the relative influence of various government sectors.

For a while in the 1970s, departments of recreation and sport assumed importance by virtue of the federal Whitlam Labor government's policies in relation to sport. The Whitlam Government recognised sport as a legitimate concern for government, in contrast to previous governments who viewed sport as the concern of individuals. The Whitlam Government's policy envisaged a national system of sport based primarily on adequate facilities in the suburbs. Community recreation centres were seen as the foundation of a national sport and recreation system. Later in the 1970s, a federal Coalition Fraser Government returned aspects of sport to the private domain, and state governments had to bid for funds for recreation centres. The centrepiece of Coalition Government sports policy was the creation of an Australian Institute of Sport to nurture sporting heroes who would in turn be emulated by ordinary people. This approach, labelled the *emulation model* was supported by the newly formed Confederation of Australian Sport, who lobbied the government for a national sports policy that identified and encouraged elite performers because:

> *"They are ... the focus of national pride and the ultimate expression of sport's continuing search for excellence ... They provide the enthusiasm and stimulus for effort and involvement by other participants" (Daly 1991 p.12).*

The elite, or emulation model differed significantly from the community based approach that had started with the National Fitness Council and developed with IFRT. However, in relation to community programs the focus of funding and sports policy moved from departments of recreation and sport and the state Education Department assumed importance, especially for HDF. In the 1970s the Education Department took a broad view of education, emphasising the importance of social goals (Thomson 1998). Subsequently, a strong state Minister of Health, John Cornwall, proved a champion of the new public health, rendering the health sector attractive for organisations with similar values that were seeking policy support and stable funding.

These trends are consistent with the observation that, although IFRT and HDF related primarily to recreation and sport sectors, then the education sector, followed by the health sector, their policies remained stable because they remained consistent with the values of governments during that period. The values underlying policy were substantially informed by a behavioural model of health promotion, with growing acceptance of the influence of the new public health. Research and evaluation associated with the programs was primarily within a positivist paradigm, involving epidemiological methods and methods adapted from behavioural psychology.

Throughout this period, change in the organisations was incremental, and while the organisations moved between sectors, they retained similar policy settings because all the sectors involved held similar values about, and supported similar approaches to, physical activity.

1986 - 1994: Modular change towards one dominant government sector and the private sector

There were further changes occurring in the nature of public administration. Along with the changes to a more corporate approach to planning and budgeting to increase accountability, there was a second, contradictory movement (Considine & Painter 1997). Public Service Boards and Commissions were in decline and other forms of procedural regulation were being dismantled. This reflected notions of managerial autonomy rather than accountability and was driven by the idea that managers needed room to bring about more effective and low-cost services. To do this, it was argued that there was a need for flexibility in the public sector so that they could scale down the levels of public employment. These ideas contrasted with those of the early supporters of managerialism who had argued that it was necessary to dismantle these accountability measures because bureaucratic forms of administration were stifling public accessibility and hindering political control and work towards social and political reforms such as equal opportunity, representative and participatory bureaucracy and open government. By the 1980s the new ideas about public management placed far less emphasis

on social and democratic reforms and much more emphasis on efficiency improvement. Labor was in office in most federal and state jurisdictions and many advocates of reform were now interested in what they described as *effectiveness* rather than broader social goals. Labor governments sought tighter systems of management and controls over the public service to implement policy changes. In the public service and elsewhere they found a growing group of enthusiastic technocrats with images of themselves as aggressive and effective managers. Labor ministers liked their drive, single-mindedness, focus on results and their talk of doing more with less. This contrasted with reformers of the 1970s whose Keynesian agenda was now overtaken by hard economic times.

From the mid 1980s governments were intent on contraction rather than expansion, although Labor governments remained interested in programs of social and economic reform. There was an emerging doctrine that held that governments had failed in their efforts to provide services and which argued that governments should encourage the importation of private sector management methods and models.

The faith in corporate management soon gave way to commitments to small business logic of entrepreneurial management. Here the public service was seen as an elite core of centralised principles managing service contracts with a host of independent agents, the so-called market solution. A decline in interest in enhancing and extending public programs and a shift to contracting signalled the arrival of another wave of managerialism of the 1990s. This came to be known in Australia as *economic rationalism* (Considine & Painter 1997) and included selections from:

- comprehensive corporate planning based on centrally determined goals;
- comprehensive program budgets in which resources were allocated according to policy and management goals;
- management improvement programs in which private sector management theories and privacy private sector managers were identified as models;
- creation of the defined rank of senior managers subject to contract employment;
- increased accountability for financial management through new forms of central audit review, performance monitoring of individuals and organisations

It is within this policy context that IFRT and HDF were encouraged to look to the private sector for partnerships and management style. This was a time of government sponsored entrepreneurship within the public service during the Australian economic boom. Both IFRT and HDF formed alliances with private enterprise and sought to supplement government funding with income from commercial activities.

However, at the end of the 1980s the bubble burst, boom turned to recession and a number of Labor state governments across Australia reduced public service spending before being voted out of power amid financial scandals involving agencies operating at arm's length from government (Baum 1998). In response to the new climate, IFRT and HDF severed their close managerial links with private enterprise, regained independence, re-focussed on their traditional aims and consolidated their policy and funding relationship with the state health system. However each organisation became aware of the growing vulnerability of small organisations and began exploring options to enhance medium term security and to seek support outside South Australia by forging interstate links. There was no longer the expectation of continued growth in funding for the health sector. The reforming health minister, John Cornwall, was no longer in office and, as described in Chapter Two, his successors did not approach to job with the same reformist agenda.

During this period, the organisations retained most of their original policy goals. However, they underwent modular changes, or significant changes to parts of the organisations. They became more focussed on the health sector and began to seek more project and fee for service funding. Aware of their potential vulnerability by the end of 1994, they were considering, but had not yet decided upon, more radical policy and organisational changes.

Public managers as street level professionals

Lipsky (1980) introduced the term *street level bureaucracy* in a search for a way of describing the place of the individual in public services such as schools, police and welfare departments, lower courts, legal services officers and other agencies whose workers interact with and exercise discretion over the dispensation of benefits or the allocation of public sanctions. He tries to show how people experience public policies in these important roles, in contrast with generalisations about organisational and government actions which do not explain how individual citizens and workers are affected by the actions. He does this by exploring how and why organisations often perform contrary to their own rules and goals and how these rules are experienced by workers in the organisation. He argues that the decisions street level bureaucrats make in order to cope with uncertainties and work pressures effectively become the public policies they carry out. In this argument, public policies are not best understood as those made by legislation or in central bureaucracies. Rather public policy is made in the crowded offices and daily encounters of street level workers (Lipsky 1980).

It is argued that street level bureaucrats have more power than is acknowledged in the literature on public administration and that this power is reflected not only in control over the services that consumers receive, but also in their autonomy from the employing agency. When, because of resource allocation decisions, demand for services far exceeds supply, street level bureaucrats make policy in circumstances that are not of their own choosing. The source of their power is their ability to exercise discretion, which is inevitable because

workers in these bureaucracies must make decisions about their clients. So police officers decide who to arrest and whose behaviour to overlook, teachers make subtle decisions on who is teachable, social workers decide on who is socially salvageable, health care workers decide who has a life worth preserving, housing officers decide who gets accommodation and social security officers decide who gets a grant (Hudson 1993).

This formulation of street level bureaucracy casts public sector workers as alienated cogs in the system, oppressed by the bureaucracy within which they work and processing people in a routine way which reflects lower expectations of themselves and their clients. This is not a stance which easily fits my description and analysis of the vision and behaviour of the staff in IFRT, CHDF and the National Heart Foundation. On the contrary, I described how these organisations have developed and maintained a vision which, while adapting to new research and knowledge, has retained many of its foundation ideas despite frequent changes in the political and organisational context. I noted that this consistency is particularly evident in the way IFRT and CHDF maintained their aims despite modular organisational change accompanying changes in the involvement of government sectors and private sector.

To explore this departure from the original formulation, I start with the way Lipsky (1980) opens the door to an alternative set of conclusions when he introduces a discussion of the role of *professionalism* in the bureaucracy; asking whether professionals are different and where the enhancement of professionalism can provide a corrective to forms of bureaucratic behaviour outlined in his analysis (Lipsky 1980). One analysis of this question has suggested that professionals in the bureaucracy do in fact behave in different ways from the public sector workers described by Lipsky (1980).

Sociologists have defined professionals as possessing systematic theory, authority, community sanction, ethical codes and a culture. Professionals may secure important roles within organisations and frequently succeed in persuading politicians and administrators that the public will receive the best service if professionals' discretionary freedom is maximised and if they are given powerful positions in the organisations which run the services, especially health services. These claims for autonomy have been reinforced in the health sector by the esteem in which the public holds health professional expertise, the emotive nature of people's concerns about health and the social status which health professionals have acquired. While the word *bureaucracy* has a negative connotation, the word *profession* has a more positive connotation, and is frequently used as a superior alternative to bureaucracy. One argument for high autonomy within organisations is that there is a need for adaptability and flexibility allowing public officials to play an active role in developing new approaches to their tasks resulting in a more sophisticated service to the public. This requires a high degree of autonomy and is a trade-off between a reliable service that can only be changed by initiative from the top and a less predictable service which is flexible precisely because of the influence

of professionals within the organisation. Yet this professional autonomy has also been described as *professional dominance*, and has become a shared concern for critics of public bureaucracies from both the left and the right and has led to movements to increase professional control over or to break up organisations (Ham & Hill 1993).

I therefore propose the term *street level professionals* to describe the way IFRT and CHDF staff were able to use the five characteristics of professionalism (Ham & Hill 1993) to advance their views about physical activity in the face of many changes which are happening around them. To do this, they:

- used systematic theories of physical activity which were based on local research and international trends;
- used authority derived from their knowledge and position;
- had their work sanctioned by the community(both professional colleagues and clients) who attended service activities which were linked to research programs;
- respected ethical codes in service and research;
- developed a professional culture of collaboration, co-operation, networking and a desire to blend theory with practice what promoting the benefits of physical activity.

I have not, however, described staff in the National Heart Foundation as street level professionals. Certainly they had discretion, but they were not required to use that discretion to maintain their visions and strategies in the face of externally imposed reorganisations. They exercised discretion within the vision and strategies of their organisation, unlike their public sector colleagues in IFRT and HDF who were subject to frequent changes in political and organisational context.

New public health meets new public management: Simultaneous reappraisal of physical activity and the role of government

The New Public Health era: 1980s onwards

In Chapter Two I provided detailed description and analysis of the new public health. Although Baum (1998) argues that the new public health developed in the 1980s (Baum 1998) I argue in the following sections that the new public health perspective emerged at least a decade later in relation to physical activity.

Institute for Fitness, Research and Training (IFRT)[23]

The first time I interviewed Tony Sedgwick, in late 1993, his vision was that IFRT intended to strengthen the educational component in programs to assist people to tailor their own approach to their fitness planning, diet, stress and lifestyle. IFRT saw its role as assisting people to take control over their health by giving them skills to plan and maintain appropriate lifestyles as independently as possible from organised community programs. In other words service programs were to be seen more as a means of helping people to look after themselves and less as facilities for certain kind of behaviour such as exercise and relaxation training. IFRT envisaged research programs aiming to examine the needs of people with such conditions as asthma, diabetes, heart disease, arthritis and osteoporosis. It aimed to enhance its consulting role with industry by moving to a closer relationship with organisations in Sydney, Melbourne and Perth by collaborating on programs, research and workshops. At the time, IFRT recognised that it was becoming increasingly difficult to recruit into its fitness programs and that they continued to attract more affluent, health conscious and better educated participants than the general Australian population. These people fit those programs' emphases on education about health and the ability to take more control over one's life. IFRT recognised that this was, in part, a product of the funding arrangements that are based on participants paying fees for services. In order to remain viable, IFRT aimed to compete in a market that targets those who already have the resources to take control over their lifestyle. IFRT acknowledged that this approach makes it difficult to recruit into fitness programs those people who do not enjoy as much control over their lifestyle as their current clients. IFRT still maintained its aim of influencing Australian culture and institutions to support systematic physical activity and fitness programs (Sedgwick 1993).

When I re-interviewed Tony Sedgwick in May 1999 he described transformational changes in IFRT. Throughout 1995 and 1996 the Head and the Board of Directors conducted a review of the financial position and surveyed possible options for the future goals and organisation of the Institute. During the review it became apparent that:

- the fitness programs were not breaking even financially;
- due to the subsidy from Mutual Community there was a gradually increasing bias towards recruiting participants in the fitness programs who were existing health fund members at a time when membership of health insurance funds was declining;
- there was growing competition from the increasing number of gymnasiums and fitness centres, many of which were providing programs at a discounted price;
- whereas in the 1970s and 1980s the research and the fitness programs had complemented each other, this was no longer the case, meaning that the research and fitness programs could not cross subsidise each other or help each other in recruitment and advertising, for example by providing scientific credibility for the fitness programs;
- the Institute, as a result of the changes described in the review, and its difficulty in attracting substantial grants, could not afford to conduct intensive and costly research as it had done previously. For example it could not afford to purchase the high technology equipment that was necessary to monitor accurately day-to-day physical activity behaviour and physiological concomitants;
- in the late 1980s the Institute's interests moved towards occupational and health and safety with a ten year project on training for lifting which included a number of conferences and workshops in five Australian states and New Zealand. Associated with this project was a new interest in consulting with industrial organisations such as the (then) South Australian Gas Company as a source of income and as a way to apply research findings.

As a result of the review changes were inevitable and a re-organisation occurred on June 30th 1997. The building (that had been purchased from the state government in 1995) and the fitness program were sold to a private company, *Fitness on the Park*. IFRT now operates as a small incorporated health and fitness consultancy, directed by its board and Tony Sedgwick. All staff including the head are remunerated as consultants for specific projects which currently include the development of a movement monitoring device and the preparation of a book on human variability and physical activity. It's staff, essentially Tony Sedgwick, moved premises and focused on consulting to industry and seeking research

---

[23] For this section I re-interviewed Tony Sedgwick from IFRT in 1999.

funds. In April 1999, Tony Sedgwick retired from IFRT. Fitness on the Park renovated the building and continues to operate as a fitness centre and gymnasium.

These developments contrast starkly with my discussion of the earlier history of the ability of IFRT to change with the times, while maintaining a core program.

Health Development Foundation (HDF) and subsequently Children's Health Development Foundation (CHDF)[24]

At the time of my first interviews with Barbara Smith and Peter Wooller, in late 1993, the Health Development Foundation was discussing the merits of amalgamating with the Women and Children's Hospital (a teaching hospital incorporating a former children's hospital and an obstetrics and gynaecology hospital on the one site). In 1994 the organisation changed its name to the Children's Health Development Foundation (CHDF) and amalgamated with the Women's and Children's Hospital. The Women's and Children's Hospital is a publicly funded teaching hospital with a strong reputation for advocating for principles of primary health care are as expressed in the Ottawa Charter for Health Promotion. After amalgamation, the Foundation realised that there would to be changes to core government funding and instituted a comprehensive review of its functions and operations. The review was strongly supported by the Metropolitan Health Services Division of the South Australian Health Commission and by the Women's and Children's Hospital. The Foundation used consultants and undertook a broad consultation process to restructure and set future directions. The result was a change of name to the Children's Health Development Foundation to more clearly articulate the organisation's core business and to reorient services and operations to ensure viability. These changes were reflected in a new strategic plan covering the years 1997 to 2000. The new mission statement was to " ... promote the physical emotional and social health of children by improving dietary intake, and increasing the level of physical activity undertaken by children." The mission was to be achieved by a combination of research, training and communicating the findings and results to children parents schools carers and decision-makers. The statement of operating principles started with a commitment to the Ottawa Charter for Health Promotion and also included a democratic approach to health education, operation within the policy frameworks of health and education centres and supporting the principles of social justice and cultural diversity and the establishment of supportive environments. It was envisaged as a smart, lean organisation which would develop its products, services and resources for the national and international market place by maximising the use of information technology (Children's Health Development Foundation 1997).

---

[24] For this section I interviewed Peter Wooller and Melanie Smith from CHDF in May 1999.

The restructure and the strategic plan reflected strong support from the health sector in the form of core funding, organisational support from the Women's and Children's Hospital and the health department's support for consultations and the setting of new directions. The Foundation reported directly to the chief executive officer and joined an organisation with a vision of a *hospital without walls* and a state-wide role in the coordination of services for women and children. The hospital assisted the Foundation by providing administrative and organisational support and supporting the new directions as laid out in the strategic plan.

Nevertheless, there was a clear commitment to maintaining and enhancing the profile of the Foundation within the education sector, which maintained health and physical education as key parts of the core curriculum of schools and recognised the relationship between physical activity and the well-being and educational outcomes for children. Between 1996 and 1998 core funding from the Education Department was progressively reduced. In the first instance it changed from global core funding to a combination of core and special project funding. The first special project involved a consulting role in the Health Promoting Schools program whereby the Foundation ran the grants scheme and kept in touch with national trends. Second there was specific training and development for teachers involving negotiation with Curriculum Branch in the Education Department and producing training packages that were consistent with the new national curriculum. This relationship benefited the strategic directions and daily work of both the Foundation and Curriculum Branch. The health department and the hospital supported the Foundation's focus on the education sector because this work contributed to health education and to the settings that determine the health of the next generation.

From 1999 onwards core funding from the Education Department ceased while core funding from the health sector is to be maintained. Some of the key features of the Children's Health Development Foundation are:

- it is a small organisation with a very tight focus on diet and physical activity in the settings that influence children. The organisation can respond very quickly to national and international trends, which it surveys keenly;
- it has a very solid base in the health sector which, in turn, supports its work in the education sector;
- its practice base is informed by a settings approach and the Ottawa Charter. For example, in a 1998 newsletter on physical activity, the Foundation states on the front page *"Ecological approaches to increasing physical activity participation recognise that activity behaviour, like other health behaviours, is connected to physical and social environments. Road and transport systems, urban design, social and cultural practices influence how active we are. An ecological approach uses multi strategies which target individual, group and community factors influencing participation simultaneously, at different levels and in*

different settings. The importance of supportive environments for active living and the acknowledgment that collaborative partnerships are needed to achieve this, is central to the new approaches" (Children's Health Development Foundation 1998).

- as a small organisation it does not try to achieve all its goals by itself, rather it gives high priority to establishing partnerships;
- there is a strong business base whereby the Foundation develops and evaluates programs then distributes them commercially. For example, *Fit to Lead* is an innovative program developed by the CHDF to encourage young women's participation in physical activity. It uses a curriculum based health promotion strategy and aims to develop health knowledge and leadership skills through team work and collaboration. The *Fit to Lead* package consists of resource materials for teachers and students and an exciting Compact Disc of original music;
- it takes a national perspective to inform and add credibility to its South Australian activities, for example in the development of the Commonwealth Government of Australia's food selection guide.

CHDF claims a national reputation for developing innovative curriculum support materials for teachers in the area of health, fitness and nutrition. These materials, along with teacher training and continuing research and evaluation, provide the basis for CHDF's aim for health promoting schools. CHDF has released the first of its new school programs, *Action Pack,* a health and fitness education program for primary schools that has generated national interest.

National Heart Foundation of Australia (SA Division)

Between 1997 and 1999 the National Heart Foundation (NHF) developed a new policy on physical activity, influenced by the US Surgeon General (1996) report's endorsement of the health benefits of moderate physical activity and supporting Australian government initiatives such as *Active Australia* (Sport and Recreation Ministers' Council 1997). The policy was endorsed by the NHF in May 2000 and states that:

The Heart Foundation recommends and promotes enjoyable active living for all Australians. This can include incorporating physical activity into usual activities of daily living as well as participation in exercise or sport for recreation or fitness. All people should aim to participate in moderate intensity physical activity for 30 minutes or more on most or all days of the week. While this level of moderate physical activity is recommended for health benefit, more vigorous activity (for those who are able and want to do it) may confer additional benefit in terms of cardiovascular health. Physical activity should be a part of a general healthy lifestyle that also includes healthy eating and being smoke free.

The NHF supports the Physical Activity Guidelines for Australians developed by the Commonwealth Department of Health and Aged Care...If people are to be more active, the social and physical environment in which physical activity takes place is important. Qualitative research has shown that infrastructure such as road systems, transport and open space, as well as social factors such as social support and community identity, play a role in enabling people to be active ... Physical activity should be considered in the context of the environments in which it takes place. Policy and practice related to urban planning, transport and related environmental issues must be addressed (The Heart Foundation National Physical Activity Program Committee 2000).

The new policy arrangements support a mix of rehabilitation and prevention, representing NHF's commitment to working along the continuum of treatment and prevention of heart disease. In the process, the National Physical Activity Program Committee relates directly to other committees in close liaison with the National Rehabilitation Committee and works with other committees on policy documents. This work is then submitted to the Board for approval and overseeing of policies and programs. There is now a larger number and breadth of physical activity programs which are consistent with the new policy, for example programs:

- in schools, such as Jump Rope For Heart and a walk to school project;
- tailored for rural and remote areas of Australia, co-ordinated by a staff member recently employed for that purpose;
- with Aboriginal and Torres Strait Islander people, in particular in Western Australia, Queensland and the Northern Territory ;
- in collaboration with local government, in particular with local government award programs and the *Supportive Environments for Physical Activity Project*, which is discussed in more detail in a later section.

Policy commentary 1994 - 1999

Public sector managers as contractors in the marketplace

The second phase of managerialism led to the development of what has been called a *contract state* which began in 1987 with Labour Prime Minister Hawke committing his government to microeconomic reform involving reshaping the public service to ensure that market principles applied to the public as well as private sectors. Ideas for restructuring the public service were taken explicitly from economic theory, in particular from public choice and agency theory about the structure of production and organisation. Regulation was separated from policy delivery and competition was introduced within the public sector. Government trading enterprises were be recast as businesses and made fully competitive, often to be sold off entirely. Markets became the preferred method of resource allocation within government and where this was not feasible, substitutes such as benchmarking were introduced to mirror the discipline available under competition (Davis 1997).

Managerialism also increased the distance between policy-making and management and lobby groups, at the same time as there were growing demands for improved consultation between government and clients. One lesson from international reforms is that under managerialism organisations can develop an excessively introverted focus on their own aims. In the focus on immediate outputs, single purpose organisations overlooked government objectives and public policies that crossed agency boundaries. This was to the detriment of important issues such as unity and avoiding fragmentation that are central to the success of public policies. One of the lessons from New Zealand is that competition has been encouraged between health agencies where collaboration would have produced better outcomes (Trosa 1997).

Until 1994 IFRT and HDF had flourished in a state whose government provided funds to support the principles of community health and encourage local innovation. On 31 May 1994, however, the " ... (new State Liberal) ... Government promised to cut spending in areas including law enforcement, education and health to avoid state debt spiralling ..." (Australian 1st June 1994). "The health budget will be cut by more than $60 million annually, to be achieved in part by a new casemix funding system, competition between hospitals and lowered operating costs (Advertiser 1st June 1994). The Government based its argument on the report of a Commission of Audit which was required "... to establish the actual state of South Australia's finances ... (and) ... to compare the financial performance and financial position of the state's public sector with that of other states" (Commission of Audit 1994).

In 1996 the federal Labor Government led by Prime Minister Paul Keating was defeated and replaced by a conservative Coalition Government led by Prime Minister John Howard. In the late 1980s and early 1990s federal and state labor governments took significant steps

towards what was being described in Australia as economic rationalism. By 1996, state and federal governments alike had embraced and promoted the language of the market.

I have described the way IFRT and CHDF modified their approaches to fit evolving changes in health and physical activity policy and in the sectors who provided funding - while retaining much of their enduring character and aims. In this period, there was neither change in health policies nor in the sectors responsible for IFRT and CHDF. What did change was governments' policies on service provision. In the face of a market driven ideology, IFRT had real difficulties surviving within its original aims. There was no longer global funding for IFRT to distribute between fitness, research and consultancy programs. Instead IFRT had to compete in different markets for fitness, research and consultancy programs. The Head and the Board judged that IFRT could not survive financially in any way that resembled its current aims and structure in a climate where programs were viewed as a collection of tenders in a market. Similarly, CHDF undertook a strategic planning process and decided to join a much larger organisation.

I argue here that there is a natural experiment with two public and one independent organisation. The two public organisations reorganised a number of times, yet until the mid 1990s kept largely to their original aims. In the late 1990s, the two public organisations underwent transformational change, with one amalgamating with a hospital and the other virtually closing. Yet the independent organisation maintained its aims and programs, undergoing minor structural change that it both initiated and controlled. Over the whole of this period, there were few fundamental changes in physical activity policy, and certainly no fundamental change between the early and late 1990s. What did change, however, was the values expressed by governments about the nature of government services. The move to market models and contracting had a direct effect on the structure of the two public organisations, and no effect on the independent organisation. I conclude from this that, in relation to these three agencies involved with physical activity, the most powerful force placing organisational change on the agenda were not health or other sector policies, but policies and values about the role of government.

Table 5.1 Changing discourses in the history of physical activity and health

Era	Definitions and values	Main strategies	Sectors involved	International influences
Colonialism	Sport for men Connected with values of Empire Strong role for government	Class based sporting activities and educational strategies	Amateur sport Hotels Schools	British Empire
Nation building	Drill for boys for Empire and militarism White Australia policy	Sport Drill PE in schools Junior Cadets in schools	Sporting organisations State education departments Military Commonwealth Health NHMRC National Fitness Councils Universities	British Empire and European wars British school curriculum League of Nations
Affluence and medicine	Influence of Commonwealth and link between exercise and treatment and rehabilitation in cardio-vascular medicine	Supervised programs in medical settings	Cardiology departments Health Departments Heart Foundations	Health departments Cardiology networks (including Heart Foundations) Epidemiology, community trials
Lifestyle	Sedentary lifestyle as a risk factor leading to aerobic exercise movement to prevent disease Recreation and leisure time activities	Behavioural epidemiology Social marketing Lifestyle campaigns Leisure/ recreation Fitness boom	Education Recreation and sport Health	Professional exchanges and networks Concerns about risk factors in developed countries
New public health	Late adoption in relation to physical activity Rethinking of role of state to have reduced role and contracting out	Exploration of links between environments and physical activity	Education Recreation and sport Criminology Health Local government	WHO Healthy Settings Environment Transport Local government

Conclusions

In this chapter I use the term *discourse* to refer to a series of statements or events over time (Peterson & Lupton 1996) that reflect the dominant and emerging understandings about physical activity and health in South Australia. Table 5.1 summarises the historical examples I have selected to illustrate some of these changing discourses.

My selection of historical examples demonstrates themes that have been enduring, emerging and re-emerging. One enduring theme is the role of the State in promoting the value of, and participation in, physical activity. The State has done this for different reasons and through different sectors: from colonial and militaristic reasons to educational, health and economic benefits. Another enduring theme is the economic and moral values attributed to physical activity, again expressed in different ways. Many of these economic and moral values have been reinforced by international considerations such as experiences of warfare, Empire, League of Nations, international research in cardiology and lifestyle determinants of health, World Health Organisation and many charters, treaties and statements with international support. Throughout South Australian History, the education sector has had quite a consistent interest in, and influence on, physical activity.

One re-emerging theme has been sport. Sport had a strong influence in the physical activity discourse at some times (for example through the Colonial Era, in the argument about the benefits of promoting elite sport in the 1980s and in the emergence of *Active Australia* in the 1990s). Yet at other times it was more of a steady influence (for example in the Nation Building and Affluence and Medicine eras). Another re-emerging theme is the argument for the collective benefit from physical activity that was prominent in the Colonial and Nation Building eras, and re-emerged within a more economic and population health discourse in the New Public Health era. There have also been re-occurring emphases on class and gender, for example in relation to education, the leisure habits of the working class in the Colonial era, the lifestyle determinants of cardio-vascular disease and the link in the New Public Health era between low levels of physical activity and measures of social and economic disadvantage.

One of the powerful current discourses around physical activity, that linking it to states of health and disease, is relatively recent. This discourse arose from the link between physical activity and first the treatment, then the prevention, of cardio-vascular disease.

As my case studies of South Australian organisations demonstrates, a powerful force of change in the discourse has been the move away from the welfare state argument towards a contract or market state, with a reduced role for government. This discourse co-exists with a potentially contradictory set of arguments about the importance of co-ordinated, public policy interventions to increase physical activity. While there has been a consistent argument in favour of sport and leisure time physical activity, attention has turned more recently to

increasing physical activity in daily life. This is because of the argument that social, technological and economic change in Australia has led to significant reductions in physical activity associated with daily life, such as work, shopping and education.

A common thread is that both continuities and changes in discourses reflect broad values about the role of the state in Australia, influenced first by the British Empire , then by international networks and movements in the health sector and subsequently by economic rationalist ideas amid globalisation. In the last decade or so, when there has been a relatively consistent set of policies about health and physical activity, there have been fundamental changes in the values behind the way governments conceptualise and organise their own services.

My analysis of the way discourses have changed supports the argument that policy in relation to physical activity strongly reflects broader social and political values both about health and the role of governments. This analysis suggests that in order to take a settings, or ecological, approach to physical activity it is essential to look beyond the rational connections between physical activity and health and engage in debates about underlying political and social values. Moreover, it is important to recognise the varying contemporary and historical influences on physical activity of policy actors from various sectors. Finally, the analysis suggests that current policy influences on physical activity are not immutable, and may change as a result of changes in values, policy advocacy, or both.

Chapter 6
Associations between physical activity, demographic factors, health status, social connections and community facilities.

This chapter reports the results of Study 1 and how these results inform Studies 2 to 4 and answer the research questions:

1. What are the differences in levels of physical activity between social groups and how do these gaps relate to the health and other benefits of physical activity?
2. What are some associations between levels of physical activity and factors that reflect the social experiences in settings in which physical activity occurs?
3. What are some associations between levels of physical activity and facilities in the settings in which physical activity occurs?

In Chapter Four I described Study 1 as an analytical epidemiological investigation of the results of a cross-sectional community health survey in Adelaide, South Australia. I also described the sampling procedure, the sample and the development of indices. In this chapter, I describe the results, preliminary discussion of results against other studies and develop implications and questions that informed the design and analysis of Studies 2 and 3. [25]

Bivariate analysis

This section reports statistically significant results from Table 6.1, Table 6.2 and Table 6.3. More women were low in activity than men and that people with lower incomes were significantly more likely to be low in activity than those on higher incomes, with the trend more evident in women. People with either no formal or primary only education were more likely to have low levels of activity. Table 6.1 shows a trend to increasing levels of low activity (compared with moderate activity) with age with an additional increase in the 40-54 age group. However, there were also gender differences. While women followed the general trend, with the exception of age group 17-24, they were more likely to have low levels of activity. For men, however, low activity peaked in age group 40-54 and reduced in both 55-64 and 65-74 before increasing after age 75. Over the age of 65, women were considerably less active than men.

---

[25] The chapter draws on two publications where I was the principal author MacDougall, C., R. Cooke, N. Owen, K. Willson and A. Bauman (1997). "Relating physical activity to health status, social connections and community facilities." Australian and New Zealand Journal of Public Health **21**(6): 631-637.; MacDougall & Cooke 1993) so "we" in the chapter refer to me and my co-authors.

Table 6.1 Associations between gender, income, education, age group and physical inactivity in the Marion, Brighton and Glenelg Community Needs Assessment Survey

	No.	Inactive (%)	Chi square	Degrees of freedom	Prob
Gender					
Males	499	47.1	6.8	1	.009
Females	728	54.7			
Income					
<$15,000 per annum	421	53.2	4.3	1	.04
>$15,000 per annum	642	46.7			
Income by female gender					
<$15,000 per annum	271	57.2	3.7	1	.05
>$15,000 per annum	338	49.4			
Education					
No formal/primary	164	65.9	22.0	3	.000
Secondary	658	50.6			
Trade/business	180	42.8			
Tertiary	79	44.9			
Age group					
17-24	98	37.8	23.7	6	.001
25-39	309	45.0			
40-54	239	57.7			
55-64	261	51.0			
65-74	199	56.3			
75 and over	119	62.2			

Table 6.2 refers to the Nottingham Health Profile. A higher rank means more difficulty with that health-related factor. Low activity was associated with higher ranks on the factors *Energy, Pain Isolation and Mobility*.

Table 6.2 Associations between gender, sub-scales on the Nottingham Health Profile and low physical activity in the Marion, Brighton and Glenelg Community Needs Assessment Survey

	No.	Mean rank (in-active)	Mean rank (active)	Kruskal Wallis test	Degrees of freedom	Prob
Nottingham Health Profile by male gender						
Energy	486	257.4	231.3	6.6	1	.01
Pain	479	251.6	227.0	8.1	1	.004
Isolation	481	254.5	229.0	10.6	1	.07
Mobility	483	261.0	225.1	14.6	1	.0001
Nottingham Health Profile						
Mobility	1183	619.9	562.9	14.5	1	.0001

Note: a higher rank means more difficulty with the health related factor

Table 6.3 shows that more people who said their health was fair, poor or very poor were lower in activity than those who rated their health as very good and further that men with fewer social connections were more likely to have low levels of activity. For men only, more who rated their local area negatively were low in activity compared with those who rated their local area positively. More people who were dissatisfied with recreation facilities were low in activity than people who were satisfied. Men who were carers were less likely to be low in activity than men who were not carers.

Table 6.3 Associations between general health, gender, social connections, satisfaction with recreation facilities, status as a carer and low physical activity in the Marion, Brighton and Glenelg Community Needs Assessment Survey

	No.	Inactive (%)	Moderately active (%)	Chi square	Degrees of freedom	Prob
General health						
very good health	330	42.4	57.6	14.0	1	.000
fair, poor or very poor health	890	54.5	45.5			
Social connections by male gender						
high	323	42.4	57.6	8.4	1	.004
low	173	56.1	43.9			
Living environment by male gender						
satisfied	424	45.0	55.0	4.7	1	.03
dissatisfied	75	58.7	41.3			
Recreation facilities						
satisfied	389	43.4	55.6	14.8	1	.001
dissatisfied	844	55.2	44.8			
Recreation facilities by female gender						
satisfied	227	45.4	54.7	11.5	1	.001
dissatisfied	501	58.9	41.1			
Caring for a person with an illness or disability by male gender						
carer	48	25.0	75.0	10.4	1	.001
not a carer	451	49.5	50.5			

Multivariate analysis

We developed a logistic regression model to identify predictor variables significantly related to the presence or absence of the dichotomous dependent variable (low activity versus being moderately active - excluding the vigorously active). Significance was set at .01 to account for multiple testing. The bivariate analyses showed significant differences by gender, so we included in the final model all the significant factors in the bivariate analysis and included a forward stepwise addition of interaction with gender to the main effects model. We analysed the data using SAS Version 6.07.02 software.

Table 6.4 shows the significant independent factors associated with low activity based on a logistic regression model. People aged 40 to 54 were significantly more likely to be low in activity than those aged 17-24. Those with no formal or only primary education were more likely to be low in activity than those with tertiary education. Women who did not report being in very good health were less likely to be active. Increases in the score on the mobility factor of the Nottingham Health Profile represent increased difficulty with mobility and this was associated with a 73% increase in the likelihood of low activity.

Table 6.4 Predictors of low physical activity (compared with moderate activity) based on a logistic regression model with a forward stepwise addition of significant interactions with gender to the main effects model in the Marion, Brighton and Glenelg Community Needs Assessment Survey: Significant odds ratios only

Predictor variables	No.	Inactive (%)	Logistic coefficient	Standard error	Odds ratio	95% confidence interval
Age group						
17-24	98	37.8			1.0	
25-39	309	45.0	0.46	0.27	1.59	0.93 - 2.70
40-54	239	57.7	0.88	0.29	2.42	1.39 - 4.24
55-64	261	51.0	0.39	0.29	1.48	0.83 - 2.65
65-74	199	56.3	0.55	0.33	1.74	0.91 - 3.30
>75	119	62.2	0.28	0.40	1.32	0.60 - 2.90
Education						
tertiary	176	44.9			1.0	
trade/business	179	43.0	0.008	0.24	1.01	0.63 - 1.63
secondary	656	50.8	0.12	0.19	1.13	0.77 - 1.66
no formal/primary	164	65.9	0.65	0.28	1.93	1.10 - 3.39
General health by female gender						
very good health	179	41.9			1.0	
fair, poor or very poor health	539	58.4	0.58	0.21	1.80	1.18 - 2.75
Nottingham Health Profile (continuous variable)						
Mobility 20 unit increase					1.73	1.14 - 2.64
Social connections by male gender						
high	323	42.4			1.0	
low	173	56.1	0.56	0.22	1.75	1.13 - 2.72
Recreation facilities						
satisfied	389	43.4			1.0	
dissatisfied	844	55.2	0.47	0.14	1.60	1.20 - 2.13
Carer by male gender						
not a carer	48	25.0			1.0	
a carer	451	49.5	-1.16	0.39	0.31	0.14 - 0.67

Men who did not report high social connections were more likely to be low in activity. People who were not satisfied with recreation facilities were more likely to be low in activity. Men who were carers of someone with ill health or a disability were, however, less likely to have low activity levels.

Discussion of results

As discussed in Chapter Four, the epidemiological model comprises two groups of factors.

- those that can be compared with other epidemiological studies and which include demographic factors that are standard in those studies;
- those that can be contrasted with other epidemiological studies because they are new factors which the study introduces, such as views about local facilities and social connectedness.

The next sections discuss these two groups of factors.

Demographic factors that are compared with other epidemiological studies

In this section, I examine demographic factors from my study (age, income and education, gender differences) that have been used in other epidemiological studies, propose some implications of my findings and pose questions for Studies 2 and 3. The next section examines how Australian qualitative research contributes to our understanding of the influence on physical activity of age, stage, gender and time.

Age

Previous studies reported a gradient whereby low activity increased with age. While our study used definitions of physical activity that were comparable to those used in earlier Australian descriptive epidemiology studies (Bauman & Owen 1991; Owen & Bauman 1992), these studies used 55 and over as the highest age category. Another used over 50 as their highest age category (Bauman, Owen & Rushworth 1990). Our study was able to distinguish between the age groups 55-64, 65-74 and over 75.

Study 1 suggests the importance to Studies 2 and 3 of examining why the group aged 40-54 was most likely to have low levels of activity and why low activity decreased in the subsequent age group for all people, and in the next two age groups for men. One argument may be that the barrier to physical activity of *no time* (Owen & Bauman 1992) is most significant in age group 40-54 and there follows a period with more time and relative freedom not only from the work and family commitments of middle life but also from the health or mobility problems experienced later in life. There may also be a survival bias whereby exercise has contributed to people living to an older age.

Income and education

We found similar relationships between low activity and lower levels of income and education as did previous Australian studies (Bauman, Owen & Rushworth 1990; Bauman & Owen 1991; Owen & Bauman 1992). The associations between demographic factors and physical inactivity confirm previous findings that highlight social inequality in the distribution of physical activity (Bauman, Owen & Rushworth 1990) and supports the approach in Studies 2 and 3 of placing research about physical activity into the context of broader determinants of health.

Gender differences

Interpretation of the gender differences we found can usefully draw on our knowledge about morbidity and self reported health. Australian health data suggest that women have higher rates of morbidity than men (Grant & Lapsley 1993). An Australian study relating the self reported health of older people to morbidity and mortality over the study period found a gradient for women whereby intermediate ratings (good, fair, poor health) predict mortality, while only extreme ratings for men (very good or very poor health) predict mortality (McCallum, Shadbolt & Wang 1994). That study attempted to explain these differences by noting that death rates from coronary heart disease are two to three times higher for men than for women and the dominant risk factors for men, including smoking and hypertension, have large effects. For women, however, single risk factors are not dominant. Rather, many variables combine to reach significance. Therefore, the prevalent, acute nature of heart attacks for older men may create the basis for less gradation in survival relative to women (McCallum, Shadbolt & Wang 1994).

The interpretation of gender differences can also be informed by three ideas about women's health. First, women and men may differ in the ways they experience their bodies and respond to symptoms of illnesses, with women being more aware of internal bodily changes and states. Second, women may engage in a different process in the decision to take illness-related action such as consulting medical professionals or reducing activity. Finally, doctors may respond differently to women than to men with similar organic conditions, including prescribing a different course of therapy (Broom 1991).

Recent Canadian research concluded that there are real differences in factors that predict health for men and women. For women, social and structural factors are more important. For example being in the highest income category, having social support and (compared with working full time) going to school and recovering from an illness are more important predictors for women than men. Behavioural determinants such as smoking and alcohol consumption were more important for men than for women. Being overweight is more strongly associated with poorer self-rated health among women than among men, suggesting the importance of cultural ideals of female slenderness (Denton & Walters 1999). Study 1 suggests the importance for Studies 2 and 3 of investigating further the relationship between gender and physical activity.

Health and settings factors that add to models from other epidemiological studies

General health and mobility

Study 1 found that the health problems of energy, pain and isolation were associated with low activity, as were reduced mobility and women's poor self-ratings of health. This finding supports an earlier study (Owen & Bauman 1992) in which the barrier of *physically unable to exercise* was the second most common and was reported more often by women. However, care must be taken because while the epidemiological data can show associations, it cannot be used to debate causality. For example, it can be proposed that poor health is a barrier to activity. Or, it can be proposed that good health is a resource for daily living, including physical activity. On the basis of these epidemiological data from Study 1, Studies 2 and 3 will explore these relationships without assuming that physical activity either is or should be considered as a prerequisite for health. In particular, Study 1 suggests the importance of investigating further the relationship between poor self-reported general health, mobility problems and low levels of physical activity.

Social connections

The association between low social connections and low physical activity in men is consistent with findings about social support in general that for men being married is associated with better health, being widowed is associated with poorer health and men may benefit more from social relationships than women (House, Landers & Umberson 1988).

In relation to social support for physical activity, an Australian survey found that 31% of inactive respondents nominated *exercising with a group* as an important source of help to increase physical activity (Department of the Arts Sport the Environment and Territories 1992). A study at a health club concluded that members exercised more if they had friends at the club and socialised outside the club with those friends; this was more marked for single than for married people (Unger & Johnson 1995). However, in relation to gender, two American studies reported by Sallis & Owen (1998, p. 127) suggest that "... social support for exercise may be more influential for women."

Study 1 suggests the importance of investigating further the relationship between low levels of both social connections and physical activity. Further, it suggests the value of examining not only social support specifically for exercise programs, but also the relationship between social support in general and physical activity.

Recreation facilities

In Study 1 the multi-variate analysis found that those who were dissatisfied with recreation facilities were more likely to report low physical activity. The bivariate analysis found that, for men only, more who rated their local area negatively were low in activity compared with those who rated their

local area positively. Sallis & Owen (1999) review studies associating physical activity with self-reported assessments of exercise facilities at home, neighbourhood characteristics and convenience of facilities, and conclude:

- the number of types of exercise equipment at home was related to both vigorous and strength exercises;
- the neighbourhood characteristics scale was not related to any physical activity measure (which, they note, disagrees with focus group research from Australia by Corti and colleagues which was reviewed in Chapter Two);
- the convenient facilities scale was correlated with the frequency of vigorous exercise, similar to the finding that perceptions of convenient facilities predicted increases in walking for exercise;
- socio-economic status correlates with all the scales; so more advantaged people live in environments that make it easier to be active.

Study 1 defines recreation facilities in a way that is broadly similar to what Sallis & Owen (1999) describe as the characteristics of the neighbourhood and convenience of facilities.

The results from studies into facilities are not uniform. In one Australian study 4 participants did not identify the item *no facilities* as a significant barrier for exercise. However, when interpreting this result, it is important to take into account the type of facility and level of activity. It appears that facilities were important for vigorous exercise (Sallis & Hovell 1990) while for walking and cycling it is more important to have open spaces than space for organised sports (Hahn & Craythorn 1994). An Australian study concludes that there are links between levels of physical activity and distribution of, and access to, a wide range of formal and informal facilities (Corti, Holman, Donovan & Broomhall 1997).

Based on the results of Study 1, Studies 2 and 3 will investigate further the relationship between low levels of physical activity and the attractiveness of facilities to those with mobility or health problems and seek to explore links between facilities and socio-economic status.

Carers

Although men caring for someone ill or with a disability were less likely to be low in physical activity than men who were not carers, there were only 88 male carers compared to 144 female carers and fewer lived in the same house as the people they cared for (23% of male carers compared with 35% of female carers). This made the findings very difficult to interpret.

Implications for Studies 2 and 3: Adding complex factors to an epidemiological model

When we add factors such as social connections, health status and satisfaction with facilities to an epidemiological model we do so as part of a quest to understand how all these factors are connected and whether peoples' environments support the choice to increase moderate physical activity. There are several key areas of concern for such epidemiological studies.

First, factors such as social support are virtually impossible to measure in a population survey by one or two succinct questions whose answers can be easily categorised for multivariate analysis. Even if the measures are included in a model, the literature does not provide a clear understanding of the relationship between social support and health that could directly inform policy and program development. A good example of this type of critique is provided by a letter to the Editor of the British Medical Journal commenting on an article published in a previous issue *Cardiovascular risk and attitudes to lifestyle: what do patients think?* (Silagy, Muir, Coulter, Thorogood & Roe 1993). The letter comments that:

> *"The paper illustrates some of the problems of investigating complex social and cultural processes (such as the population's operational understanding of scientific information) with crude survey tools. As in early research on health education, the questionnaire in this study required yes/no answers to questions on which there is, reasonably, much academic debate. These simplistic tools for collecting data not only produce a poor representation of the richness of popular beliefs, but also give the illusion of producing hard findings by facilitating the use of complex statistical analysis" (Sheldon, Smith & Davison 1993 p. 380) .*

The second area of concern is that risk analysis does not account for the problem of many variables each contributing a small amount to total variability but together making a statistical difference, for example in research on frailty (McCallum, Shadbolt & Wang 1994). We must be mindful of this when selecting methodologies for studies that add social and structural factors to existing models of health and lifestyle.

The third concern is that as we add factors we cannot assume a one-way relationship whereby each will act to increase physical activity. Earlier in the chapter I proposed that physical activity could be a resource for health, or that it could be the other way round. For example, it may be that women were more likely than men to see physical activity as an outcome or evidence of health, not as a step towards health. The role of gender differences in constructing the concepts of health and physical activity warrant inclusion in future research. For example, Unger (1995) investigated physical activity in a random sample of 3610 adults in California and, although she found that

sedentary lifestyle was associated with an increased risk of experiencing poor perceived physical health, mental health and restricted activity, she cautioned:

> *Because these data are cross-sectional, they cannot establish causality. These results are also consistent with the very plausible hypothesis that having high health status leads to higher levels of physical activity." (Unger 1995 p. 17).*

Fourth, and following from the point above, it is difficult for epidemiological studies to make definitive statements about cause. A cause is an event, condition, characteristic or a combination of these factors that plays an important role in producing a disease. Some laboratory scientists hold the view that a cause must be the sole requirement for the production of disease. Most epidemiologists take a less restrictive view, arguing that to establish cause there must be:

- a temporal relation whereby the cause precedes the effect;
- plausibility of the association, consistent with other knowledge;
- consistency of results with other studies;
- a strong association, or relative risk, between the cause and the effect;
- a dose-response relationship where increased exposure to the cause increases the effect;
- reversibility whereby the removal of a possible cause reduces risk;
- evidence based on a strong study design;
- judging the evidence using a number of lines of evidence (Beaglehole, Bonita & Kjellstrom 1997).

It is implausible on the basis of these criteria to claim either cause or to suggest that cause could be inferred from Study 1 or similar studies.

The fifth concern is that care must be taken when using the results of epidemiological studies because of the common inappropriate abstraction of individual risk from a population risk (Ritchie 1994). According to one author "The determinants of incidence are not necessarily the same as causes of cases" (Rose 1985 p. 34). What may be a problem for a whole population does not convert for all individuals within that population. Research that is less investigator driven than epidemiological research shows that people often appreciate the probabilistic nature of the relationship between personal characteristics (referred to by investigators as risks) and health outcomes (Sheldon, Smith & Davison 1993).

Finally, and following from the point above, the evidence for the health benefits of physical activity suggest that, for example, in a longitudinal study of 10,000 men over 25 years, those who became active gained on average just under 9 months of life (Paffenbarger, Hyde, Wing, Lee, Jung & Kampert 1993). Moreover if all heart disease was abolished, this would add only 4.7 years to life expectancy in England and Wales (Marmot & Mustard 1994). Faced with such data, it is

understandable that individuals may not be convinced of the benefits to them of a sustained regime of physical activity. We know that, with respect to coronary heart disease, the popular culture does not operate entirely according to the assumption (which often underpins health education messages) that risk factors are under the control of the individual. Rather, the so *called lay epidemiology* or *ordinary theory* that is discussed in Chapter Seven places risk factors in the context of heredity, social conditions, the environment, fate and religion (Davison, Frankel & Smith 1992). It is therefore essential to design research that seeks to enhance our understanding of how people view health and physical activity in their social worlds.

Conclusion

Study 1, like other Australian studies, found that low levels of physical activity were associated with lower socio-economic status, supporting the opportunity in Studies 2 and 3 of placing physical activity into a broader context by exploring people's experiences of their settings, their health and physical activity. Whereas other Australian studies used the age range of over 50 or over 55 as the highest category, study 1 made more fine-grained distinctions between the ages 55 to 64, 65 to 74 and over 75. In doing so, the age range 40 to 54, rather than one of the older age groups, emerged as most likely to have lower levels of physical activity. Study 1 also found a number of gender differences that will be followed up in Studies 2 and 3.

I will delay more detailed discussion of policy implications of the findings of Study 1 until after I present the analysis of the complementary studies. I do conclude that Study 1 demonstrates the benefits of including social factors alongside the more traditional factors which are used to in epidemiological models of physical activity. On the basis of the social factors included in Study 1, Studies 2 and 3 explore further the relationship between physical activity and self reported health, social connections and recreational facilities.

Chapter 7
Ordinary theorising

The aim of this chapter is to present my analysis of the lay or ordinary theories that I detected when participants spoke about health and physical activity. In Chapter Four I asked the following research questions about ordinary theorising:

1. How do ordinary people theorise about health, physical activity and constraints on choices to increase physical activity?
2. What are the implications of ordinary theorising for physical activity and public policy?

To answer these questions, Studies 2 and 3 used focus groups and field studies exploring the reports and experiences of groups identified by Study 1 as having experience of lower levels of physical activity. In line with the constructionist paradigm that I adopt, and the purposive sample I recruited, I am careful to qualify the extent of my truth claims from this chapter: as discussed in detail in Chapter Four.

The chapter reviews literature about ordinary theory then presents an analysis of my data and implications for the promotion of physical activity. The chapter concludes with a discussion of the implications of my findings on ordinary theory for the medical, behavioural/lifestyle and socio-environmental approaches to promoting physical activity.

Expert and ordinary theory

A number of authors note the way science becomes scientistic when the *invidious distinction* is drawn between the *incorrect* beliefs of laypersons about their social worlds and the *correct* beliefs of experts (in this case sociologists). This leads to the enlightenment model of social science whereby social science must communicate what has been learned in order to enlighten the public about the social world as it really exists (Gubrium & Wallace 1990).

The notion of a dichotomy between the more valid beliefs of experts and the less valid beliefs of ordinary people is not new. The Oxford University Press Dictionary of Superstitions quotes John Melton who, in 1620, said:

> *"A whole Universitie of Doctors cannot roote these superstitious observances out of people's minds" (Opie & Tatem 1996 p.vii).*

In this quotation, so called superstitions were seen as inventions of the Devil and the product of heathenism which drew people away from a perfect trust in the provenance of God. The Christian Church proscribed the belief in any supernatural or metaphysical power except that of the Church, including divination, superstition, charms, and magic cures. Most of these *superstitions* were based on folklore, or the knowledge traditionally passed on from one

person to another which, while many people accept it, is not generally accepted by scientists nor officially recognised by government.

There is an example of the way the dominant approach to health psychology privileges expert over lay knowledge early in the first chapter of a text book (Peterson, Beck & Rowell 1992) under the heading *Commonsense psychology versus the scientific method*. The title of the section sets up a dichotomy, which is reinforced by a ten item quiz designed to demonstrate that psychological research is a necessary because commonsense frequently breaks down, especially where folklore has taken a firm hold.

In Chapter Two I discussed the way a behavioural or lifestyle models of physical activity define behaviours as *risks, risk factors or aspects of lifestyle to be changed*. Central to the compilation of official information on risk appears to be a deeply embedded assumption that it is only scientific knowledge that merits the status of expertise (Grinyer 1995). While lay expertise, founded on experience in a particular social world, does not necessarily invalidate technical knowledge, it is a dimension that is largely disregarded when risk information is delivered to the public. It is common for technical experts to assume that the public's scientific illiteracy is a problem that they must rectify by means of more elaborate programs to convince the public to take certain courses of action. This approach has been described as *naïve sociology*, with the term *naïve* being used to describe the expert bodies who construct a model of an idealised social world which is embedded in their technical analysis of risk management. In the process, experts defend scientific rationality against uninformed and disorderly subjectivism (Grinyer 1995). There is, however, a cautionary note in the writing of Grinyer (1995) when she acknowledges the danger of idealising lay experience and notes that lay experiences may be subject to the same process of construction as the experts' knowledge.

One example of the contrasting status of scientific versus lay theories is a view about people's statements of their experience of physical activity:

> *"If you have talked informally to people about physical activity, you have no doubt heard lists of reasons for not being active. The all-time winner is "I don't have the time."..., although that is difficult to take seriously when the average US adult watches three hours of television each day. It is not clear whether these lists referred to true reasons or convenient "excuses" but the ubiquity of these reasons makes them important to study. The term used is either barriers to physical activity, or cons in a decision balance framework (as in pros vs. cons)" (Sallis & Owen 1999 p. 119).*

Here, the authors disregard lay epidemiology or ordinary theory when they describe it as: "... the all time winner ... difficult to take seriously ... true reasons or convenient excuses." While they go on to recommend the inclusion of such lay epidemiology in research, it is not from a

position of respecting the theorising of the people who claim they do not have time. Rather, the lay epidemiology is taken out of the original context and reframed as part of an existing, expert derived model, "... decision balance ..." Neither is it studied as a potentially valuable insight - it is studied because of its "ubiquity." Further, the writing style in the passage quoted above departs sharply from the more impersonal tone of the remainder of the book, in which the authors (p.9) say "... we focus on the most influential and widely recognised studies as well as the most respected consensus statements about physical activity." So the reader "... will be well informed so you can judge the accuracy of statements made in magazines and on television." Yet in this example they express a strong view about lay theory without formally reviewing studies about the relationship between perceived and actual time constraints and barriers to physical activity.

Later in the same section, when they propose directions for research, they exemplify how the positivist paradigm can be used to make a distinction between valued *objective* data and less valued, *subjective*, data. For example, they note that we all experience stressful life events that can be considered barriers to physical activity. They quote a study in which a group of women exercisers monitored stressful life events, levels of perceived stress and exercise sessions and found that the number of stressful events and perceived stresses in a week were associated with less physical activity and more missed exercise sessions. Sallis & Owen (1999) conclude that stressful life events are barriers to being physically active and distinguish two types of barriers as follows:

> *"Whether ratings of barriers represent objective or subjective reality, there is a strong and consistent correlation between barriers and exercise ... The association of barriers with physical activity is highly relevant to interventions. If the barriers are objective, methods for changing the social and physical environment are needed. If the barriers are more subjective, intervention components to help participants refute these beliefs or think about them less often may be useful" (Sallis & Owen 1999 p. 120).*

Later they conclude that:

> *"A more convincing demonstration of association between environmental characteristics and physical activity is derived from objective measures of the environment." (p. 126).*

In these examples, Sallis & Owen (1999), describe differences with powerful implications for policy and programs: *objective* barriers give rise to recommendations for social and environmental change, while people who report barriers that are classed as *subjective* are asked to modify their beliefs or think about them less often. In contrast, from a social constructionist perspective, what Sallis & Owen (1999) label as *subjective* becomes a

potentially source of information to be used in the development of theories, programs and policies.

Social marketing also emphasises the importance of expert knowledge. For example, a model to assist public health practitioners to segment a total market into relatively homogenous but distinct segments uses the following criteria:

- the total of number of persons in the segment;
- the proportion of at risk persons in the segment;
- the persuasability of the target audience;
- the accessibility of the target audience,;
- resources required to meet the need to reach the target audience;
- equity (Donovan, Jegger & Francas 1999) .

Expert knowledge is used throughout the model. *Epidemiology* is used to determine the total number of people in the segment and the proportion of at risk people. Persuasibility requires an estimate based on *attitudinal research*. Accessibility requires *knowledge* of media and entertainment habits and other lifestyle characteristics. The closest the model comes to acknowledging the views of ordinary people is in relation to the *accessibility* criterion, where the authors require an analysis of existing resources and a survey of consumer preferences. The authors note that, even with quantitative data, the assignment of weights in the model remains subjective and dependent on the values of the practitioner. In this model, experts make judgements without seeking ordinary theories. When a choice has to be made, the expert's values prevail.

Ordinary theorising and health

The work of such authors as Kathryn Backett (Milburn) (1996) and Charles Davison reflects very different views of ordinary theory from those described in the previous section. In one paper, Backett & Davison (1992) describe the results of two qualitative studies carried out independently of one other in Edinburgh and South Wales between 1987 and 1989. The general aim of each study was to investigate the meaning and salience of health and illness within particular socio-cultural settings; in one case the domestic group, in the other the local community. The particular aim of the 1992 paper was to examine how people accounted for lifestyle in different stages of the lifecourse (Backett & Davison 1992). The authors found that respondents in the study identified important cultural stereotypes of different facets of the lifecourse in three ways:

1. Cultural versions of physiological ageing, such as childhood, adolescence, middle age, pensioner.

2. Demographic status, such as single, newly wed, grandparent.

3. Occupation, such as student, career person, retired person.

Assessments of whether behaviour was *reasonable* took into account the interplay of commonsense ideas about age, physiological function, risk, and cultural norms around responsibility concerning social relationships and constraints consequent on demographic position, such as being a parent. Behaviours such as riding motorbikes or driving fast were viewed as acceptable for young and unattached men but inappropriate in an older, family man. The important point is not the behaviour itself, but the behaviour in the social context.

The authors question the validity of a general approach to the dissemination of advice and the encouragement of behavioural change which sees the same messages suggested for each individual across the lifecourse. They argue that non compliance with health education messages can be explained by understanding the distinction between what is rational behaviour and what is reasonable behaviour. In the examples above from their qualitative studies, rationality appeals to a pure, almost mathematical, model of behaviour whereby if A is true and B is true then action C is the only logical outcome; free from cultural impediments. The idea of reasonable behaviour recognises that knowledge and beliefs vary among and between cultures, so that even if A and B are true, action C may be appropriate in one context and action D appropriate in another.

The paper suggests that what may seem *rational* in current health education messages has only partial relevance for popular culture because, in daily life, concepts about appropriate behaviour (of which health concerns form only one component) are strongly related to social and structural contexts, one feature of which is a person's position in the lifecourse.

Backett & Davison (1992) conclude that a more dynamic and culturally appropriate approach to health education is necessary, which should not only be responsive to changes in the physical and social environment over time, but must also take account of lay assessments of behaviour and their basis in popular culture. It is important to develop health education material that is sensitive to the different stages in life, not just in language and form, but also at a conceptual level.

Another paper based on the same qualitative studies explores *lay evaluation* in which lay people define and make sense of health and illness and their associated behaviours in relation to the debate about healthy lifestyles (Backett, Davison & Mullen 1994). The paper reiterates the finding that people distinguish between what is *reasonable* and what is *rational* (Backett & Davison 1992) and concludes that lay evaluation is a complex process of *weighing up* the evidence about health and illness, weighing up the lists and weighing up the short and long-term consequences for the individual. Trade-offs are made between *good* (healthy) behaviour and *bad* (unhealthy) behaviour to balance out overall health. In this process,

individuals often draw on different frames of reference and relevance compared with those of health professionals and scientists (Backett, Davison & Mullen 1994).

Frankel, Davison & Smith (1991) argue that public perceptions of health risks are the outcome of a process termed *lay epidemiology*. *Lay epidemiology* is the process in which individuals interpret health risks through the routine observation and discussion of cases of illness and death in personal networks and the public arena, as well as from formal and informal evidence arising from other sources, such as television and magazines. People may be aware from personal or shared experience that, for example, excessive levels of alcohol can be injurious to health or that mining coal can lead to lung complaints. However, where the individual risk is so small or long term that its assessment is beyond the experience of the individual, or where the changes required to reduce the apparent risk have negative social, personal or economic effects, different considerations apply (Frankel, Davison & Smith 1991).

Frankel, Davison & Smith (1991) use the results of an ethnographic research study of the popular culture of coronary prevention surveyed in three communities in South Wales. Poor compliance with or public indifference to health education programs is a major problem. It is important to consider the factors that may obstruct success. The paper considers some of the cultural origins of public scepticism to health education messages. Some of the implications of different responses to different sorts of warnings are discussed. The authors claim their research reveals that:

- ideas held by the general public regarding coronary heart disease are more closely associated with the concerns of epidemiologists, than with the partial representation of risk factors that underpin much health education material;
- there is a strong element of public scepticism in relation to the health education messages offered. Public indifference to health education programs advocating the avoidance of risk factors for coronary heart disease can be understood in part by acknowledging the changing (and sometimes misleading) nature of the evidence underlying health education programs.

Hence it may be preferable for health educators to present the public with a more balanced representation of current knowledge, and ignorance, of risks to health.

The definition and dimensions of ordinary theory used in this thesis

I have deliberately chosen the term ordinary theory, which, although defined in the following example in relation to older people, can be applied to all participants in the research for this thesis by modifying the question from *who theorises age?* to *who theorises about health, settings and physical activity?*

> *"The question "Who theorises age" is meant to draw attention to the everyday theorising about age and ageing engaged by ordinary men and women ..." (Gubrium & Wallace 1990 p. 131).*

In relation to ageing, the products of ordinary peoples' theorising can show striking parallels with those of their professional peers. At other times, however, there is scope for great differences between the two types of theorising, when:

> *"It might be said that elderly people do not think the same way as those who theorise about them ... Their concerns are practical, having to do with real life, its conditions, changes and possibilities ... Theorists, in contrast, have theoretical and scientific interests. They hypothetically link attitudes and activities in order to investigate whether, in fact, they are empirically connected (Gubrium & Wallace 1990 p. 133).*

Gubrium & Wallace (1990) used observational and narrative data to illustrate and comment on ordinary theorising about aging by elderly people and others. Similarly, in this chapter I look at the observations and narratives of the participants in the focus groups to discover their ordinary theorising. From the outset, I acknowledge that ordinary theory may be similar to expert theory, very different from expert theory or may be modeled on expert theory while displaying significant modifications.

In this thesis, I use the term ordinary theory in a broad sense as described above and I include everyday accounts and theorising about issues related to health, settings and physical activity across the lifespan. When I analyse my results later in the chapter, I draw on the ways that researchers have referred to how ordinary people:

- hold different views about health matters according to their social roles and status;
- think about avoiding disease;
- give lay accounts of their experiences of ill-health throughout their lifetime;
- regard health matters compared with the way medical practitioners regard them (Radley & Billig 1996 p. 315).

All theories are products of their historical times and, at any one time, particular theories achieve dominance over competing, alternative theories (Milburn 1996). In current times, it is to be expected that ordinary theories of health and physical activity acknowledge and reflect the frequent discussions about these topics in the media and by governments. Given this level of discussion, it is unlikely that there are ordinary theories about these topics that are as different and as independent of expert theories as what has been labelled as *folklore* or *superstitions*. It is also to be expected that many people have multiple roles; sometimes they are in expert roles and other times they are not. I therefore avoid defining *ordinary theory* as

a product of people who are not experts. Instead, in this thesis I define it as theorising by people in day to day social exchanges. This is consistent with my use of focus groups which involve interactions between people who share and compare their differing knowledge and experiences and agree or disagree with each others views; just as social exchanges take place in real life settings (Milburn 1996).

Ordinary theory and the new public health

An understanding of the process and results of ordinary theorising is important not only to inform health promotion programs, but also for our understanding of policy development. The next sections demonstrate the importance of community participation to the implementation of the new public health. To do this, I trace some history and then describe the importance of participation. Then I use the results of an analysis of community participation to demonstrate the different ways in which governments and communities theorise about communities and health issues. These differences are important because, policies that are informed predominantly by expert theorising will be very different from those that take into account ordinary theorising.

A focus on participation and public health

Examples of community participation in Australian history

According to Baum (1998), since white settlement in Australia, protest has been an important feature of political life. [26] Participation was not, however, a new phenomenon in Australia that began with the protest movements of the 1960s and 1970s. For example, progress associations such as the Kurnell Progress Association were established in New South Wales in the early part of the century. A peak association was formed in 1945, subsequently to be known as the Council for Civic Advancement (Sutherland 1991). Governments had also attempted to increase participation by fostering a sense of community and involvement in community activities. Other examples include groups such as those sampled in this thesis; for example church and volunteer organisations. In addition, there developed Parents' and Friends and Parents' and Citizens' Associations, Country Womens' Association and unions - all of which aimed to provide services both for members and the broader community. Examples of government fostered programs include the 1942 Australian Broadcasting Association's

[26] Protest became most evident in the 1960s and 1970s, when, as I discussed in Chapter Two, a number of movements laid the important foundations for the new public health, including the protest against the Vietnam War, the demand for Aboriginal land rights, the growing women's movement and resident action groups mobilising against urban development proposals. All these movements included demands for increased participation in public life, demands, which were paralleled in the health sector.

series of talks on what local people can do for their district and a program called *Common Cause* began in the Barossa Valley in South Australia, which involved local people in committees on a range of issues, including town planning (Mowbray 1985).

The growth in participation in the urban planning process was also a powerful influence on the increase of structured and formal opportunities for participation in the activities of government institutions. An important landmark was the formation of resident action groups or RAGS, in response to urban development proposals in Sydney during the late 1960s and early 1970s. RAGS formed alliances with the Builders' Labourers Federation which imposed *green bans* on houses marked for demolition (Thorpe 1985). Many local councils in New South Wales responded to the calls from RAGS for increased participation in urban planning decision-making and have now established formal mechanisms known as *precinct systems*.

Another significant development in the growth of a public awareness of participation came with the Henderson report (1975) which revealed the hitherto undocumented level of poverty in Australia (Henderson 1975). Gough Whitlam became Prime Minister in 1972 and his Labor Government established a number of initiatives that encouraged and allowed for opportunities for public participation. One of these, the government's Australian Assistance Plan, established Regional Councils for Social Development with an emphasis on social planning and community participation. The Community Health Program was launched in 1973; again with community participation as a central objective and the consumer movement gathered momentum with the establishment of organisations such as the Medical Consumers' Association. A parallel development was the growth in government funded peak Non-Government Organisations (NGOs) from four in the 1950s to over fifty in the 1990s. (Hamilton 1993).

Participation and models of health

The focus on participation is consistent with Labonte's (1992) model of socio-environmental health promotion, and involves exploration of mechanisms by which strong personal and community relationships are developed, effective social networks and support are created, people are encouraged to participate in health development and collective action for health is fostered: leading to and aided by increases in individual self-esteem and empowerment (Labonte 1992).

In the literature on participation and health there are two important beliefs. The first is that involving people in health initiatives improves the quality and effectiveness of these initiatives. The second is that participation helps overcome community and individual powerlessness and results in people being healthier. Both these beliefs touch on the issue of power as it relates to the importance of self-esteem and control to health outcomes. People gain power by coming together with others, building up networks and relationships, and

taking collective action. The current debate about social capital suggests that the fabric of civic society is an important determination of the health of a community and encouraging participation helps to weave and strengthen this fabric (Baum, 1998). Participation, however, is a complex and contested concept involving power relationships. The four types of participation summarised by Baum (1998) differ in the extent to which participation involves a transfer of power from the state or experts to communities:

1. Consultation as a means asks for people's opinions and reactions to plans for services and policies. The consultation is limited, initiated by organisations outside the community and usually controlled by the organisation initiating consultation. Examples include consultation on policies by governments and surveys on the quality of services.

2. Participation can also be used to achieve a defined end. Again it is initiated by organisations outside the community. It is instrumental in that it lasts for the life of the initiative and does not lead to shifts in power. An example is the establishment of community panels for priority setting in health services.

3. Substantive participation occurs when people are actively involved in determining priorities and implementation, but when the initiative is externally controlled. Although people outside the community may initiate it, this type of participation may lead to structural participation over time. If the initiative becomes developmental it may involve a shift in power to the community. Examples include self-help groups initiated by a community health centre's staff and community heart health programs working with local agencies.

4. Structural participation is an engaged and developmental process in which community control predominates. The initiative may have come from outside the community initially, but eventually control is handed over to the community. It is a developmental, ongoing relationship, which is driven by the community and potentially hands back power to individuals, organisations and communities. The scope of activities is as broad of as the community wishes. Examples include Aboriginal-controlled health services and resident action groups.

Participation and health policy

In this section, I note the place of community participation in a range of health policies. [27]

Primary health care as an approach and a level of service delivery is endorsed in the Alma-Ata declaration (World Health Organisation 1978). Community participation is one of the six principles underlying the primary health care approach and community action is one of the cornerstones of current health promotion orthodoxy. The World Health Organisation's Ottawa Charter, described in Chapter Two, describes community participation as one of the primary health care principles underpinning all five approaches.

In May 1985 community representatives presented a submission to the Commonwealth Minister for Health seeking more opportunities and mechanisms for formal participation in the health system (Sylvan & Legge 1988). This resulted in a review of community participation in the Commonwealth Department of Health and a recommendation to establish the Consumers' Health Forum of Australia.

The South Australian Primary Health Care Policy (1988) states that:

> *Community participation – in the planning, organisation, operation and control of health care services and activities is important and promotes improvements in services and in the health of the people themselves (South Australian Health Commission 1988).*

The 1993 South Australian Health Commission's strategic directions document for primary health care states that primary health care policies must:

---

[27] In Chapter Two I described the introduction in 1973 of the Community Health Program by the Whitlam Labor Government, and:
A key emphasis of the Community Health Program was the notion of community participation which required that 'such (primary health care) services should be developed in consultation with and where appropriate, the involvement of the community to be served' Auer, J. and J. Powning (1982). Policy making and organisation in preventative health - a model in Working Papers in Community Health, J. Potter and A Hodgson. Adelaide, ANZSRCH/APHA.(Auer and Powning 1982).
The implementation of the 1973 Community Health Program in Australia was limited because it had been hastily assembled, had no legislative backing, varied widely between the states and involved little integration with existing servicesBaum, F., F. Fry and I. Lennie, Eds. (1992). Community Health Policy and Practice in Australia. Sydney, NSW, Pluto Press.(Baum et al, 1992).

Review available information and resources on community participation, identify gaps and develop strategies (including training if relevant) to provide information to health managers and decision-makers, health units, boards of management and practitioners. Information might include appropriate methods of ensuring meaningful community participation in all aspects of the health system, incentives for community participation and which strategies work well, where and why. Methods might include Healthy Cities, Health and Social Welfare Councils, self-help groups, Boards of Management, 'Friends of' groups, Volunteers, etc. (South Australian Health Commission 1993 p. 11).

Regional planning, a development since the introduction of the Primary Health Care Policy in South Australia, similarly endorses community participation. In its guidelines for planning in the western region of Adelaide, that region's planning unit states that the health system:

... plans to meet the needs of ... populations. These plans will be developed using an open, public process. Community and consumer groups will be involved as well as health professionals and the SA Health Commission ... People who use health services usually have the best understanding of their own health and especially, of what affects it. Planning processes need to include their views (Western Health Services Planning Unit 1993 p.1).

Participation and types of knowledge

In this section I report on a research project in which I was involved that aimed to look for barriers and supports to successful consultation between a large government department and its communities.[28] We noted that the term *community* is notoriously problematic, but used it to refer to the various constituencies of the department, interested parties, or stakeholders with an interest in public policy in the human services and health arena. These include other spheres of government, professional organisations, consumer groups, non-government organisations, population groups and individuals. We used the term *community participation* to refer to the range of formal and informal activities whereby individuals and community organisations contribute to the planning and management of community resources and services. We defined *community consultation* as one form of community participation whereby governments and public bodies formally seek out the views and opinions of individuals and community groups on specific issues. The methodology for our research was divided into four stages. The first was a detailed review of literature on community participation, in particular in health. Stage Two consisted of four case studies of recent

[28] Professor Fran Baum and I were co-principal researchers in a project for the Commonwealth Government, which culminated in the publication of *the Effective Consultation Guide* (Commonwealth of Australia, 1995) and a paper by Putland, Baum & MacDougall (1997).

consultation by the department. The cases were chosen because they represented a variety of approaches, issues and populations as well as being conducted by different divisions in the department. The assistance of participants in the original consultations was engaged to analyse each case. These participants included consumers, service providers, health professionals, interest groups, residents' groups, local governments, non-government organisations, remote communities, people from non-English-speaking backgrounds and Aboriginal and Torres Strait Islander communities, in addition to senior staff and project officers from various divisions in the department. To gather information we conducted focus groups in which participants reflected on the process of consultation and aspects that tended to facilitate or impede effective participation (MacDougall & Baum 1997; Putland, Baum & MacDougall 1997). In Stage Three, preliminary drafts of organisational analysis and guidelines for consultation were prepared for discussion with senior staff in the department. In Stage Four the analysis and guidelines were tested with a pilot group comprising senior officers in department and another comprising representatives of peak or non-government and community organisations and local government.

Our analysis showed that certain preconditions within the department's environment and relationships with communities directly affect the quality of each consultation exercise. In order to focus on the relationship between types of knowledge, participation and the structure of bureaucracy, I have selected for discussion in this thesis five of the nine key conditions that we found would enable an organisation to consult effectively. Here, I discuss those five key conditions that illustrate the different ways that communities and bureaucracies understand and theorise about issues. In the following discussion, I summarise findings from Putland, Baum & MacDougall 1997) then discuss implications for ordinary and expert theorising.[29]

Differences in the ways communities and bureaucrats theorise

1. Recognition of the knowledge and valuable experience of community members

Bureaucratic conceptions of citizens and the way in which communities are constructed by bureaucratic institutions are influential in the consultation process (Kweit & Kweit 1981). The recognition of the importance of obtaining non-bureaucratic perspectives is crucial for purely practical reasons, as a lack of appreciation of the communities' potential contribution to policy development can lead to poor judgement in decisions about resource allocation. Community

[29] In the following descriptions, the term *case studies* refers to the analysis of examples of participation in Stage Two of the research.

participation is often seen as a challenge to the role of the professional or expert, since the bureaucracy highly regards the possession of a certain kind of knowledge, particularly technical expertise, as a passport to promotion through the hierarchy. The notion that the community possesses valuable knowledge, albeit of a different kind, through living in a particular region or experiencing a specific health condition may be considered a threat to the authority of the expert (Bates & Lapsley 1985). Generally, people participate in consultations precisely because they have a direct and personal interest in the issues and this constitutes their area of authority. Some participants in the case studies stated that they were treated with suspicion by bureaucracies as if somehow their vested interests meant that they were lacking in objectivity or self-interested. For example, one consumer group was described by departmental officer as *hostile and confrontational*, while community members noted that such groups might be disregarded as *lunatic fringe* because they challenged bureaucratic authority.

2. Representative mechanisms in a diverse community

The question of how the government goes about organising participation (such as selecting the issues and the community to be consulted) causes considerable concern for both bureaucracies and communities because the composition of the community cannot simply be taken for granted. There will be different views about issues within and between communities. Some communities and individuals have greater capacity and more opportunities to articulate their views by virtue of their status in the eyes of government bureaucracies. For example, our case studies showed that the more easily identified, well-resourced commercial interests sometimes take precedence over the more subjective health interests of consumers. A growing awareness of consumer rights and a demand for more democratic administration is reflected in the emergence of a plurality of social movements, pressures and interest groups (Yeatman 1990). With the multiplicity of interest groups and peak organisations claiming to speak on behalf of various communities, it is becoming increasingly important to develop reliable and fair mechanisms to ensure that the *unorganised* and *organised* communities are represented. Diversity within community groupings presents a challenge for consultation because the bureaucracy must resist attempts to normalise or homogenise and to resolve conflict to for the sake of an appearance of harmony. According to Considine (1994), as a general rule the deeper the conflict, the more elaborate and extensive are the participatory structures needed to harness it.

3. Ongoing and constructive relationships with communities

Effective consultation does not occur in a vacuum, but forms part of a continuing organic relationship between the players. Low expectations by many members of the community

regarding their ability to influence government decisions produces negative reactions to consultation ranging from apathy and disillusionment to hostility.

4. Stability in functional areas and continuity of staff with local knowledge of programs

Frequent restructuring and reorganising of functions and responsibility in bureaucracies disturbs the development of relationships between staff and communities, which facilitate consultation. Since the 1980s, management reforms involving the restructuring of the Australian public service had generated changes in the structures, tasks, cultures and staffing composition of agencies (Department of Finance Evaluation and Staffing Analysis Branch 1994). One effect of such large-scale administrative change is that already complicated arrangements are made even less comprehensible to communities by frequent shifts in all aspects of agencies operation. Reports from participants in our case studies affirmed the reliance on individual staff in local and regional offices for support and information. A stable relationship of this kind, which is based on mutual respect and trust, is a pre-requisite for effective consultation. Staff are better able to consult if they develop an understanding of the requirements of particular communities. Evaluations of reforms in the public service have questioned whether the liberating and regenerating of staff movements has occurred at a cost (Joint Committee of Public Accounts 1992). Increasing mobility to enhance career opportunities can result in a lack of continuity in staff responsible for particular policy and program areas. The process of our research consultancy revealed a high turnover of staff in some areas in association with the restructuring process. The result is that communities frequently have to establish new contacts with new staff or adjust to new arrangements. Apart from the inconsistency in expectations between old and new staff, participants in our case studies reported finding themselves dealing with officers who are unfamiliar with the program area and had no detailed knowledge of the issues. This may satisfy a managerialist framework which that views universal, context-free and value-free administrative or management skills as routine and desirable (Pusey 1991), but it is not conducive to effective community consultation.

5. Simple, clear and consistent structures and procedures.

The very bureaucratisation which has spawned the move towards increased accountability and community participation is itself a barrier to effective consultation (Midgley, Hall, Hardiman & Narine 1986). Individual bureaucracies tend to respond to a complex internal logic, which means the operation, is neither transparent to the outsider nor consistent with other bureaucracies. The structural maze of departments, which encompass an extremely wide range of programs, can appear intimidating, confusing and distant from the community.

Participants in our case studies painted a picture of the organisational structures of government departments as mysterious and impenetrable, supporting the view that in government departments the making of policy is often surrounded by secrecy and neglect (Dwyer 1989). From the perspectives of communities, the divisions between government portfolios and within each department are hard to reconcile with community initiatives and their concerns that cut across these divisions. As noted previously, frequent restructuring exacerbates this inaccessibility.

Commentary on participation, knowledge and policy

Our analysis of the consultation practices of a large commonwealth government department concludes that there can be a gulf between the knowledge that is valued by communities on the one hand, and by bureaucracies on the other. During discussions about health services, programs and policies, many community groups draw on their experience of living in an area, of a health issue, in relation to their lives. This knowledge is developed over years, and peoples' direct and personal interests both precede and outlast the period of the consultation with government departments. Usually there is not just a single view from what experts define as a community. Rather, there are diverse views, conflicting views and conflict about whose views are heard: the organised perspective or the unorganised or marginalised perspective. If this knowledge is to influence the agendas of government policy debates, it is important that constructive relationships between communities develop – and persist. As these relationships develop, communities gain an understanding of what at first appears to be the mysterious and impenetrable workings of government.

Bureaucracies, on the other hand, value technical knowledge, seeking so-called objective information. They also value the ability to collect information quickly and reduce the complexity and conflict inherent within it. Recent changes in the Australian public service reflect the importance to governments of the value accorded to discourse of effectiveness, efficiency and doing more with less. This is accompanied by values about the role of senior managers and policy makers in government departments and privileging context and value-free management over a style involving sustained relationships between communities and staff who know both those communities and the health issues that are of concern. As a result, there are frequent reorganisations of the functions of the government and movement of staff. One consequence of these structural changes is that it becomes easier to develop policy that is informed by technical knowledge processed by experts who may have little knowledge of the communities or of the issue than policy informed by the complex, conflicting ordinary theories of those with a long-term, personal interest in the issues.

Results of ordinary theorising about health and physical activity

In this section I present and discuss results from Studies 2 and 3 about the way participants theorised about health.

More than the absence of disease

In the Arthritis Group, there was frequent use of language implying that participants considered themselves to be healthy in the sense that, with effort and planning, they were able to go about most of their daily activities and socialise with people. As facilitator, I sought clarification and the resultant dialogue demonstrates the way the participants distinguished between health and their chronic conditions.

> *Facilitator: I am interested, do you call yourself disabled?*
>
> *(All saying no)*
>
> *What do you call - how do you describe yourselves?*
>
> *Speaker 1 - we are arthritically challenged (great laughter!!)*
>
> *Speaker 4 - my ex-neighbour she has muscular dystrophy and she has been in a wheelchair for 20 years and I would call her disabled.*
>
> *Facilitator: Do you see yourselves as healthy people who have arthritis?*
>
> *(All saying yes)*
>
> *Facilitator: I thought I would ask you that, I was getting that impression from listening to you but I wanted to be very clear. So you don't call yourself people with a disability, or disabled, you are healthy but you have difficulties.*
>
> *(All speaking)*
>
> *Speaker 1 - you are able to overcome most situations ...*
>
> *Facilitator - And your approach to exercise is that it keeps your joints mobile?*
>
> *Speaker 1 - absolutely essential.*
>
> *You listen to your body and you also exercise to get out and see people otherwise you would drive yourself mad. (Arthritis Group)*

These quotations are consistent with research findings that informants with a chronic disease resented being defined as patients or handicapped (Admi 1996). They rather defined themselves as having a health problem and were only patients when they were in a health care setting and felt that the disease did not play a central role in their lives. There is more

detailed discussion later in this section about health and physical activity for people with chronic conditions.

Stress

Participants in the Friends of the Southern Hospice field visit were older and had experienced stressful events associated with losing a partner. At the meeting, they demonstrated the *life review*, which is a naturally occurring, universal mental process characterised by the progressive return to consciousness of past experiences, and, particularly, the resurgence of unresolved conflicts. Presumably this process is prompted by the realisation of approaching dissolution and death, and the inability to maintain one's sense of personal invulnerability (Wallace 1992). In this case, participants reflected on the role of stress and its connection with health.

> *People are expected to perform a lot, it puts pressure on to 'go one better'.*
>
> *Then there is the stress of always having to keep to a timetable.*
>
> *Don't you think that stress is bottled up emotions? People haven't got anywhere to get it out.*
>
> *Stress is related to happiness and causes early heart trouble.*
>
> *Perhaps a hereditary factor is involved?*
>
> *Young people who study are under stress.*
>
> *Stress was never talked about before, now it is very important. (Friends of Southern Hospice Field Notes)*

In these examples, participants discuss stress and performance and propose a link with heart disease. They question whether there is an hereditary factor and note that stress once was not talked about. While these are comments about health in general, they are consistent with later themes in this chapter relating physical activity to a broader discussion of mental health benefits (including stress reduction).

Environment

In a number of groups there was discussion of the link between environment and health, reflecting the discussion earlier in the chapter of the argument (Frankel, Davison & Smith 1991) that public perceptions of health risks are the outcome of a process termed *lay epidemiology*.

Speaker 1 - And the other thing I think, which absolutely, living on a golf course I see it so much, but the spraying of chemicals, instead of going and cutting weeds or digging them up, everyone wants to spray weeds, if you get a weed in your yard now you go and spray it. I see the incidence of cancer in our area, it is unbelievable, and I go out and play golf and if they have been spraying, I don't have to see the sign when they have been spraying, I come home and I am scratching and I am itching. We went down the end of the Terrace the other day because we looked at a house and while we were standing on the footpath the guy comes down the street spraying the weeds. Some of these machine jobs, like spraying, I am not a believer it would do anybody any good. (Prime Timers)

Speaker 1 - We have tried the Marion - tripping around there, but I mean everybody advises against Marion because there is so much pollution down there and you want to get away from the cars rather than near them.

Speaker 2 - Right, pollution from the cars themselves you mean.

Speaker 3 - they say that is one of the worst places to be because all the air conditioning sucks all the muck in from the carpark and it is a (triangle?), so we try and avoid there where possible and go to the other. (Cardiac Rehabilitation Group)

Speaker 1 - although there is a very high incidence of asthma in Hallett Cove.

Speaker 2- with the lead alert research not long ago, my youngest child was included in that, and her results came back way below the dangerous level.

Speaker 3 - what about grasses and other things, I think that is what causes the asthma, there is so much open space still, so many paddocks around with all the rye grass and things like that

Speaker 4 - So while open spaces are really good. I get hayfever something chronic.

Speaker 5 - my son has been in hospital about 10 times with asthma and that hasn't been affected - I mean he doesn't have allergies, his is just when he gets a respiratory infection so I wonder, how many asthmatics are allergy related or if it is just respiratory infections. (Hallett Cove South Primary School)

In these examples, participants are aware from personal or shared experience of chemicals in recreation areas, pollution in places where people congregate and walk, industry near residential areas where many children live and play and pollen and dust. They have linked

these environmental factors directly with such conditions as childhood asthma. In these examples, the individuals have little control over the perceived environmental threats. These threats do not just relate to health in general, they also reduce the attractiveness of engaging in physical activity in open spaces.

Gender

I looked for theorising about gender because the results from Study 1 discussed in Chapter Six showed interactions between gender and factors associated with physical activity and health. The view from one group was that physical activity arranged by clubs must take account of the gender imbalance amongst older members:

> *About 8 people said that they did Line Dancing instead of a fitness class because you don't need a partner and there are more women than men whose partners have died, this is a worldwide situation. (Friends of Southern Hospice Field Notes)*

Differential reactions to stress was proposed as a reason for men dying before women, and earlier in this section I noted that participants proposed that stress affects health.

There were a number of responses to one participant's question 'why do men die before women':

> *Women handle stress better*
>
> *Women handle stress better because it is acceptable for them to cry.*
>
> *Mothers teach their sons not to cry ... only girls can cry. (Friends of Southern Hospice Field Notes)*

Looking more broadly at gender differences, some argued that there were different risk factors for men, although this is changing. These factors related to the division of labour and the changing nature of work.

> *Female Speaker - I think what it is, when we women are bringing up children you are supposed to walk around the house 7 miles a day or 14 kilometres or whatever it is, so if we don't do that when we get older, that is when we put on weight, as I know myself (laughing). (Prime Timers)*
>
> *Perhaps 'Women's lib' would change this ... especially now that more women were smoking and being aggressive drivers.*
>
> *Women worked harder then because they didn't have any of the modern conveniences. My mum had seven kids and was a midwife, so was always looking after other people's kids as well. But even today women still work harder than men.*

Men's work is heavier.

Not necessarily. (Friends of Southern Hospice Field Notes)

In another group, it was argued that women are more likely to arrange social connections and support, which in turn improve health. Moreover, women do this for men, leaving older, single men vulnerable.

> *Speaker 1 - I can really see personally because my husband and I both retired together, I adjusted to retirement far easier. I am having to sort of create situations and make arrangements to go out more.*
>
> *Speaker 2 - I can imagine that - I was reading an article where they were saying that retired men often commit suicide because they lose interest once they leave the workplace - I can imagine that, yes, because I think women do.*
>
> *Speaker 3 - I can get dressed and walk over to Marion and look around the shops and come home, I can spend time in the garden and I always find something to do, but yes, I think men would find it difficult to do that*
>
> *Speaker 4 - I should imagine men don't want to move out, they want to be quite content to sit there, but then they don't see anyone.*
>
> *Speaker 4 - men find it a lot harder to express their feelings and things like that too I think.*
>
> *(All agreeing) (Marion Volunteers Focus Group)*

Another gender-related report from participants in many groups was that as men got older they got to the point where they gave up driving or died. In many cases, men had done most of the driving for the family so it became difficult for older women either to start driving again or to start driving at all. This makes travel to facilities and to venues for socialising involving physical activity very difficult for women who, in general, live longer than their husbands.

In relation to walking for moderate physical activity, a number of male and female participants thought that women were more likely to feel unsafe than men were.

> *Male speaker - I don't feel unsafe, I never have done, but I can understand a woman, on her own, is very vulnerable especially if she is in an area that she is not used to.*

I think a lot of females, if they want to go walking on their own ... get a dog or find a companion or stick to an area that they know. ... Something that I suddenly thought of, I normally wander down the road in the morning to get the local paper and I kept seeing this woman every morning walking this little poodle and we got talking and that sort of thing and so on, and after a few mornings, I hadn't seen her for a while and about a week later I saw her and she said, oh I've had to vary my walking times because this other bloke with this large dog, he was sort of giving me sideways looks. So I mean, she is intimidated, she is put off, so she thinks twice about walking. (Prime timers)

These examples demonstrate a range of ways in which participants theorised that there were gender differences in relation to health and physical activity, supporting calls for continuing consideration of gender as a factor in research on physical activity.

Social connections

Running throughout many statements is the importance of physical activity in maintaining social connections, for example:

You listen to your body and you also exercise to get out and see people otherwise you would drive yourself mad. (Arthritis Group)

In one group, the following direct link was proposed between social isolation and health:

Speaker 1 - I think this area is very poorly served from a recreational point of view and from a transport point of view ... public transport to get to Noarlunga or Marion to access those recreational facilities is very poor.

Speaker 2 - That can affect people's health and well being, they feel isolated. (Trott Park Literacy Group)

In another group, a large regional shopping centre was valued for social reasons:

... Marion (shopping centre) is lovely, I do enjoy going there, it is a wonderful place to be and meet people. (Marion Volunteers)

Involvement in, and service to, the community was valued by a number of people:

I believe in ... doing something in the community. We are also active in our local church so it keeps me pretty busy. (Marion Volunteers)

A direct link was made between physical activity and social connections in the local area:

Speaker 1 - I feel that walking or jogging around the neighbourhood with or without a dog or with ... friends is a way of actually seeing your neighbours (and) people in your street, because we do seem to stay in our own four walls a lot ...

Speaker 2 - I have felt (walking locally) has opened my eyes a lot and I realise how easy it can be to be concerned about your own little environment and you suddenly hear about a neighbour down the street that might have passed away, maybe that has got some hassles with children or something. That is one of the spin offs from daily or weekly or twice weekly around the neighbourhood and beyond. (Marion Volunteers)

Speaker 1 - exercise is also good, not just ... physically but socially, because if you are walking you look at the gardens and you see other things ...

Speaker 2 - and you meet people too, lots of people.

Speaker 1 - and especially if you are walking your dog, people who have dogs talk to other people with dogs and then you can walk together. (PrimeTimers)

In another example, participants joined a social group associated with a church because they saw that it suited the values that they associated with their religion. They could meet with like-minded people, serve a depressed community "with no strings attached" and, at the same time, join in physical activity. Certainly they engaged in physical activity as part of the group's activities and they valued that part of the group, however providing opportunities for physical activity was a by-product rather than the raison d'être.

Health is a means for physical activity

The last sections explored ordinary theorising about health in general. In this section, I deal more specifically with health as a means for physical activity and the idea that there can be a finite reservoir, rather than an infinite capacity, for physical activity. I have noted before in this chapter that participants with arthritis frequently nominated as a benefit or reason for exercise the need to keep the joints mobile and frequently used the term *on a good day.* My analysis of the data in this section reveals further support for health as a means or prerequisite for physical activity. In the examples below, health problems included age combined with the loss of a husband, weather affecting a health problem, bad back and a perception of old age and insufficient strength.

Speaker 1 - I had lawn and of course when I lost my husband I just found it was too much with my hands to go out in the street and cut all the edges, so I just rang them up and they came and I poisoned it all and they came out and put gravel around and now it is looking better.

Speaker 2 - I had three days home and I thought my gosh I wish to heck that I could get out but the weather stopped me, so I can't go out in the wind because I've got spondylosis in the neck and as soon as the wind gets on the back of my neck, my head aches and everything, so I don't go out when it is windy. (Arthritis Group)

Used to play tennis for exercise, but can't do that now (because of bad back). (Friends of Southern Hospice Field Notes)

Overall the women felt that exercise wasn't a priority in their day, they were more concerned with being able to get around safely, quickly and cheaply. Thought that perhaps if they were younger and healthier they might walk more (one woman did when she was younger but not anymore because "not strong enough"). (St Maria Gorretti Field Notes)

Lifecourse, reservoirs and sensible limits

Many of these comments support Backett & Davison's (1992) distinction between what is reasonable and what is rational. In many of these examples, participants discuss what types and levels of physical activity are reasonable in various parts of the lifecourse. I have labeled one theme as a *reservoir* notion, denoting concerns that parts of the body may wear out if they are overused. It is thus both rational and reasonable, from the perspective of these participants, to decide on *sensible limits* for physical activity.

I've got an artificial hip that is looking down the barrel to having another replacement because it is 10 years old, but I find about an hour and a half and I feel stressed and I need to sort of stop then. (Arthritis Group)

Male Speaker - I used to walk a lot and be very active but I have got two hip replacements so it is often not a matter of age that - I've had to alter - I am walking a little but nowhere near like I used to because I guess I am slightly afraid of wearing these things out or dislocating, so that is another area sometimes, there are things that are happening in life, it is not necessarily being very old that slows you down, it could be some health problem, skeletal problem or whatever. (Prime Timers)

Must be careful not to go too far and over-do it, that's not good either. (Friends of Southern Hospice Field Notes)

Speaker - 10 minutes is the most I can walk but I have got new shoes made. If I just had ordinary shoes I could only walk about a block. (Arthritis Group)

Some exercises you can do just sitting in the chair watching telly or whatever, just to keep you supple. (Friends of Southern Hospice Field Notes)

You can use your joints but not over use them. (Arthritis Group)

While it is true that that recommended doses have reduced over the years (as discussed in Chapter Two), there remains in expert discourse great emphasis on measuring and promoting minimum amounts and intensities of physical activity. This discourse that may not support those who decide that it is reasonable to ration their physical activity.

Comparison with research on retirement

There is further evidence of physical activity as a means for social outcomes from a study which aims to gain a better understanding of the social health of non-professional men, post retirement, from the mens' own perspectives. The research was conducted in an adjacent geographical area to my research, at the same time. The research method was phenomenological, aiming to grasp and express the everyday feelings, attitudes and perceptions of participating men and derive the phenomena from them. It attempted to seek out the very nature of the phenomena and, the essence without which it could not be what it is, and to describe and interpret the men's meanings. There were 10 participants in the study, aged between 60 and 70 and retired for greater than six months but less than two years. All had been employed in non-professional occupational groups. One was widowed, another divorced and the remainder were married and lived with their wives. Data were collected by participant completed journals, in-depth interviews and collection of field notes (Fudge 1997; Fudge 1998). It is important to note that this was not a study into physical activity, nor was it testing hypotheses relating health to physical activity.

In her analysis of data, Fudge (1997) proposed five themes: anticipated life stage, a time of freedom, a time to consolidate primary relationships, a space of one's own and a time of activity. In general, the men reported that they had anticipated retirement, enjoy it the freedom from work and the extra time they had and sought to create or enhance relationships which they were not able to maintain when they were working. Of particular interest to my analysis of ordinary theory was the theme of a time of activity. According to Fudge (1997 p 91-2)

"... being mentally and physically active was important to the men, particularly in exercising their perceived societal role of being a practical support to others ... The necessity to be active if one wished to be successful or happy or alive in retirement was emphasised by or participants, and this was related to both mental and physical activity. The men provided a range of practical assistance to others, predominantly to family members, but also to neighbours, friends and the wider community."

Implications for health promotion and policy

There is support, especially from participants who are older or with chronic conditions, for using the definition from the Ottawa Charter of health being more than the presence or absence of disease. Health has a psychological component and people acknowledge the existence of stress and the need to get out and see people, to forget about problems and put a smile on the face as part of what it means to be healthy. Theorising about both health and physical activity reflects concerns about the environment. Participants argued that pollution of the natural and built environments is a hazard to health in general and that unsupportive environments make it difficult to build physical activity into the day. Participants feel better as a result of the combination of enjoying environments that are sufficiently aesthetic and convenient to support physical activity and from the intrinsic benefits of physical activity. There is a social component of health and social benefits of physical activity. People theorise that, to benefit health defined in its broadest sense, there can be a variety of meanings of the term *physical activity*. It can range from doing mobility exercises while sitting in a chair, through deciding what are reasonable limits given the body's reservoir of capability, to moderate and more vigorous exercise.

Given the variety of meanings for health and physical activity, my findings more closely support the broad definition of health advocated by the World Health Organisation that underpins the Ottawa Charter than the clockwork model of health, favoured by the behavioural or lifestyle model of physical activity promotion reviewed in Chapter Two.

In Chapter Two I discussed Robertson and Minkler's (1994 p.297) question that reflects a fundamental ideological conflict that exists about the goal of health promotion:

Should the goal be improved health status (individual and collective) - health as an end? Or should the goal be social justice - health as a means?

On the basis of my findings so far, I agree with the argument in the Ottawa Charter (1986) that good health is a major resource for social, economic and personal development. Therefore I propose that efforts to promote participation in physical activity be based on an answer to Robertson & Minkler's (1994) question that recognises that health is frequently seen as a means to an end described in terms of supportive social relationships, moving

through safe and aesthetic environments and health protecting environments; in other words many of the features encompassed by the terms *social justice and equity (Robertson & Minkler 1994).*

Following from this recommendation, health professionals must consider how to avoid *healthism*, which operates on the assumption that everyone should work and live to maximise their health (Metcalfe 1993). A result of healthism is that health becomes the analytical lens through which all issues related to physical activity are seen, thereby diluting and obfuscating health sector efforts and other social and political efforts to promote physical activity. (adapted from Robertson & Minkler 1994). This happens in part because, as I discuss later in the chapter, to be effective, campaigns to influence physical activity must contain images, meanings and implementation steps that strike a chord with the recipient of the messages. If campaigns overemphasise *healthist* messages about physical activity, they are less likely to engage participants with messages, advice or interventions which they perceive as having positive meanings. [30]

My research suggests that if physical activity becomes even more than before something that resides outside of oneself, determined now by the entire social context and conferred by a new set of experts with new knowledge bases and new skills, people may feel even less control over their health than before. (Robertson & Minkler 1994). I also conclude that my recommendations face possible dangers in implementation arising from the adoption of a multi-factorial model arguing that health is affected by many factors all linked with one another like the threads in a web. The challenge of policy development on the basis of my research is to avoid the debilitating conclusion that, to be effective, an intervention would have to attack all possible determinants of low levels of physical activity at once. In practice, such a model would be a recipe for not taking action (Tesh, Tuohy, Christoffel, Hancock, Norsigian, Nightingale & Robertson 1988).

There are related implications for health professionals who have become accustomed to framing physical activity as a health issue and claiming expert knowledge and status. These health professionals must explore new ways of working with other sectors, following the example of community health researchers such as Fudge (1997) who, in her qualitative study of the experiences of recently retired men, proposed a number of public policies that had influenced the positive experiences of retirement that she found in the study. These policies were outside the health sector, involving employment and home ownership, pensions and superannuation and labour force arrangements that enabled the men to select their own timing for retirement. While health professionals can make a case for the importance of policy

[30] These recommendations bring with them some of the difficulties of the new public health that I reviewed in Chapter Two. There, I noted that by redefining health more broadly, as a resource like wealth or education which is variously distributed among people, we may risk further commodifying the notion of health.

developments in other sectors, they can rarely claim the expertise or mandate to take a leading role in policy debates in other sectors. Intersectoral policy action is not new for health professionals; it underpins initiatives such as *Healthy Cities* and *Healthy Settings.* However, in order to achieve collaboration that contributes to co-operative policy development across sectors, it is necessary to examine the form and function of our institutions to see if they help or hinder collaborative endeavours.

Results of ordinary theorising and acute conditions: bring on the experts!

In this section, I discuss results where ordinary and expert theorising was relatively consistent and then examine implications for health promotion, policy and public health strategies that are informed by psychology.

Rehabilitation

There was an extended discussion (over 10 minutes with high levels of participation and intensity) in the Cardiac Rehabilitation Group about the need to continue programs to help them and others recovering from cardiac problems to continue with organised physical activity. The focus group was held in the teaching hospital straight after the group had met for their final session of rehabilitation following major cardiac surgery. Participants valued and appreciated their group based rehabilitation program and expressed concern that they were being thrown out and may not be able to maintain the changes they had made.

> *Male Speaker 1 - I mean we have just been from a program which has been excellent downstairs for four weeks, or circuit training, aerobics etc and now we have sort of - I mean I don't think the hospital want us to, but we have just been thrown out and said well carry on, but most of us have got nowhere to carry on to ... if we did what we were doing downstairs now...(i.e. the rehabilitation program). I think all of us would benefit.*
>
> *Female Speaker 1 - it's nice in a group.*
>
> *Facilitator - so a group is important?*
>
> *(All saying yes.)*

Participants claimed that cost benefits and health benefits would flow from continuing a rehabilitation program of some sort.

Male Speaker 1 - I think also from the point of view of the hospital, I mean, somewhere down the line prevention must be saving money. I mean if everybody goes back to their old habits again and in a year's time are back in the hospital on this floor, it is costing money.

Male Speaker 2 - I think most of us would be prepared to pay something towards the cost of it and also probably let the general public perhaps use it and raise some money

Male Speaker 1 - I mean I would think that if the council were, for instance, to even say hire a part of the Flinders Gym for one or two nights a week or something for an hour or two. I mean the money is going, obviously, to a good cause, back to the (...teaching hospital).

Facilitator - can I just ask one question, do you find it helpful to walk with people who have either had a cardiac problem or understand it? Is that a helpful thing for you?

(All speaking - yes).

The support from a group comprising people with similar experiences was valued.

Male Speaker 1 - you can also see how everybody else is getting on as well, I mean, obviously everybody has improved, whatever they have done, they have all improved and you can see that.

Facilitator - And that's a good feeling?

Female Speaker 2 - Yes, and you want to be able to keep that up all the time. You see I was incapacitated for three months and literally confined to bed for the last month and I have found that the exercise has been marvelous.

Male Speaker 2 - I mean it is the last day today. I said jokingly to one of the nurses, you know, on Christmas Day I will probably come down here at 2 o'clock looking for my exercise, I shall miss it.

Male Speaker 1 - just the mere fact I think of the last four weeks of rehabilitation we have had, whatever it has cost Flinders, and it obviously has cost in time or whatever it may be, I am sure everybody has benefited from it no end. If everybody kept to that and kept it up I don't think they would get the sort of returns. That is a good thing to hear you saying. There is a lot of people who are against rehabilitation to the point of - not patients - but more powerful people who would say, oh rehab nooo ... too much.

Male Speaker 3 - ... I would sort of like to think that wouldn't it be better if they thought along the lines, isn't it better to spend money and try and educate people and try and get them into situations that may stop them having heart attacks in the first place, than the cost attached to treating people, as against perhaps spending the money to try and stop them having heart attacks.

Female Speaker 3 - Those that haven't got the people to go and exercise with would fall back into their old ways and end up back in hospital, not only once but two or three times.

Participants appreciated the process and content of the rehabilitation group, yet they theorised that not all health professionals and policy makers were supportive – particularly those doctors who they described as having "old fashioned ideas," in other words they looked only at short term treatment and not at longer term rehabilitation and prevention of further episodes of heart disease.

Male Speaker 1 - one of the differences we've found here also is the fact that is not drummed into you in a way that is boring.

I have had to change my lifestyle completely, dietwise and everything and I mean, it is not much fun I didn't think going in to having to eat rabbit food every day, but I mean...(interjection ... But you found out that it isn't rabbit food?) well yes, but also it has made me more interested from what they told me here, now I look in the supermarkets at everything and I find things that I mean even my local GP doesn't know about.

Male Speaker 1 - I think they know but as I say, not only the doctors, but (a staff member associated with the rehabilitation group), I mean he will say to you I think that even they try and convince the doctors that this is good for us, what we are doing. I think probably some of the doctors may have old fashioned ideas, you know, what the hell do they think they are doing pushing people up stairs and goodness knows what.

Male Speaker 4 - I think it goes beyond the doctors, I think it goes to the policy makers who make the decisions. It is not just a simple matter of saying all right we have fixed you up now, now go up and exercise, it is just not that simple.

Female Speaker 3 - no you've got to have somebody to help you.

Male Speaker 1 - if you saved 1% of that I mean, you wouldn't be saying I want 20% or whatever it is, a small amount of that money to go back into the education, rehab etc, (Cardiac Rehabilitation Group)

Benefits

Many of the benefits that participants claimed for physical activity are consistent with recent health education campaigns, for example, weight control, physical and mental benefits including stress reduction, social benefits and benefits throughout life.

Weight

An example of a direct connection between walking and weight loss.

> *Female Speaker - it is just that I was feeling very oooooo, overweight I suppose, and I thought there is only one way to get rid of this, and that is to walk. (Trott Park Literacy Group)*

The physical and the mental self

An earlier section described the way participants theorised about the link between stress and general health. In this section, I describe the way participants related physical activity to physical and mental health. The first quotation is an example of the theory that physical activity makes people forget their ills.

> *Female Speaker - I think you forget your ills because the doctor's receptionist saw me at Crows (an Australian Football match) one day and she said oh by the way the doctor wants to see you, he hasn't taken your blood pressure for 12 months. Well you forget about it, if you feel well and you are exercising, I think that helps, I mean ... the mind as well. (Prime Timers Group)*

> *I do the gardening to deal with the stress, I have to. (Friends of Southern Hospice Field Notes)*

The last quotation is just one example of many who said that physical activity reduces stress.

The social self

Many participants, predominantly women, noted the social benefits of physical activity in relation to participating in society.

> *Female Speaker - getting out to see people is to stop the depression. (Arthritis Group)*

> *Female Speaker - I think maybe with us, we have always been keen in a way, in our younger time or something like that, to just naturally stay healthy as much as we can and play sport or something like that when we were younger and then we think oh well we have reared our children or if we are female or whatever, and we would like to participate again perhaps (Prime Timers)*

Through the lifecourse

Older participants noted a time dimension to physical activity, relating it to changes in roles and responsibilities over the lifecourse.

> *Facilitator - And (to Female Speaker 3) when you think about exercise, how do you relate it to health?*
>
> *Female Speaker 3 - I think it is very important. As I say when I was working, I mean I was always very active being a teacher, I was just running from one classroom to another and I had yard duty so you had to do it, you know, it is very stringent on your time but I was having a lot of back problems, and I thought I just can't go to the Chiropractor any more. I began to sort of feel that I had to help myself so we joined (a commercial gymnasium) So I changed then and I did aqua-aerobics which I found far more strenuous than actually a half an hour of exercising which was very good, you know toning up and they were exercising that actually you could do for life (Marion Volunteers)*
>
> *Male Speaker 1 - You can't sort of turn 60 and decide I want to do keep fit and I want to do aerobics but if you build it gradually you can still do it until you are well in your 70's and 80's except you don't do too much jumping around. (Prime Timers Group)*

Ordinary theory and health education: Image, meaning and implementation

According to Kelly (1992), unless disease prevention and health education interventions take into account the patient's perspectives, there may be unintended consequences that negate or reduce the effectiveness of the intervention (Kelly 1992). Kelly draws on phenomenology to propose that health education campaigns about lifestyle change should consider three elements*: image, meaning* and *implementation.*

All health education activity, according to Kelly (1992), has or creates *images* which are either visual, or less concrete such as an idea or a concept. Most health promotion material is deliberately loaded with visual images and many programmes, or their sponsors, have carefully researched logos. For example, a major purpose of qualitative market research conducted by the Australian Sports Commission (1986) was to examine the images associated with words used to describe physical activity and with proposed logos for the national *Active Australia* campaign.

Meaning, is a related, but slightly different, concept that is concerned with the subjective processes of interpretation and understanding by the recipients of images. The individual may

perceive an image as good, bad, positive, negative, warm or hostile. Meaning is as much a quality of the perceiving subject as of the object being perceived. For example, over tea and muffins after focus groups many participants in Studies 2 and 3 used wry humour when they distanced themselves from images of physical activity involving lycra-clad gymnasium members sweating profusely! For them, this was an unattainable image with no relevant meaning. Instead, they responded to meanings that related moderate levels of physical activity to daily life characterised by wearing street clothes rather than special outfits.

Implementation is important because it is not enough to assume that the existence of a program will in itself lead to change. After peoples' initial reaction to an image, they seek to work out how best to respond to the image and what resources to bring to bear on the task of making changes. In other words, they ask the question *What can I do about it?* One example from my research of a message with meaning but lacking an implementation component is the participant who reported that their doctor told them to lose weight but didn't suggest how.

I have reported findings from a group for patients recovering from cardiac surgery, a group that fits Ritchie's (1991) description of a health education group incorporating adult learning principles (Ritchie 1994). My observation was that participants:

- were shocked by their condition and aimed to use physical activity to help in the immediate recovery process;
- listened to experts and used their knowledge to make decisions about physical activity;
- were inexperienced in interacting with the current experts who managed their condition and welcomed their advice.

In this case, the *image* and *meaning* of the program, as defined by Kelly (1992), struck a chord with the participants who perceived the health education information to be useful and to fit their values which, according to Ritchie (1991), is a likely indicator of a successful program. The involvement of the participants in the group process led them to debate their hopes and fears about Kelly's third characteristic, *implementation*.

Implications for health promotion and policy

The preceding discussion is an example of the effectiveness of an intervention using a behavioural model with the right combination of *image, meaning* and *implementation* for participants at that time. However, this example does not support an exclusive relationship between physical activity and the delay or prevention of the reoccurrence of heart disease. My analysis certainly proposes a clear link in the data between increased physical activity and reduced prospects of future disease. However, participants frequently qualified or added to such statements, incorporating discussion of broader purposes in life; in particular those

related to connecting with the social world and going about daily activities as easily and effectively as possible. Here is an opportunity for health professionals, in their practice, to move from an initially restricted discussion of physical activity and heart health to a discussion of the broader determinants of health, along the lines of the community development empowerment continuum (Labonte 1992). According to this continuum, the range of health promotion activities can cover individual work with people, group work, organising for changes in communities, coalition advocacy and political action. In my study, the cardio-vascular rehabilitation group had already satisfactorily experienced individual work and small group health education. They made many suggestions to help not only themselves, but also other people, to avoid disease and save the community money.

In my analysis of results there were examples from participants with chronic diseases who had used knowledge gained from their long established partnerships with experts. For example, participants in the arthritis group reported that they used the strategies of self-monitoring, relaxation, physical aides, exercises recommended to improve mobility and strength and group support for physical activity.

There are also similarities between ordinary theorising about the health benefits of physical activity and the benefits summarised by Sallis & Owen (1998) as rationales for behavioural interventions. For example, ordinary theories acknowledge the benefits in relation to weight control, physical well-being, stress management, broader mental health and specific benefits for acute and chronic conditions. However, a recurring theme in my analysis is that these are neither perceived as the exclusive nor necessarily the most important benefits. Often, participants proposed these benefits either as by-products, or acknowledged that, while they knew of them, in their experience there were other more important benefits of physical activity.

Where ordinary and expert behavioural theories are relatively consistent, I recommend that health promotion strategies make effective use of behavioural models and seek opportunities to discuss broader determinants of health, as suggested by the community development continuum, with the aim of maximising implementation of changes and enabling people to take long term control over their physical activity and associated lifestyle factors. Examples include policies and programmes on rehabilitation from cardio-vascular disease conducted by the National Heart Foundation (NHF 1989, 1991, 1996).

In relation to participation in policy development, where ordinary and expert behavioural theories are consistent, I recommend that the appropriate level in Baum's (1998) continuum of participation *is consultation as a means,* seeking opinions and reactions to plans for services and policies; for example in relation to rehabilitation following cardio-vascular interventions. The consultation would be initiated by expert organisations such as governments, heart foundations, hospitals or advocacy groups and would appropriately be

controlled by the organisation initiating consultation. The majority of policy actors would have links with the health sector, particularly the acute, health education and rehabilitation components of the sector. However, to enhance the possibility of movement along the community development continuum (Labonte 1992), I recommend the involvement of policy actors from community based health services and health and fitness facilities. Local government could play a co-ordinating and facilitating role between health and community services. I recommend this level because communities of interest and experts are likely to agree on the goals, image and meaning of policies and programmes which, with well managed implementation, could be expected to be effective and not to be contested.

Results about negotiating expert and ordinary theorising

I know it's supposed to be good for me ... but it isn't always and that's not why I do it

Earlier discussions have demonstrated that many participants knew about the relationships between physical activity and health that have been the subject of health promotion campaigns and advice to patients. Certainly this knowledge has been incorporated into ordinary theories. However, it was common for the importance of single or specific health benefits to be downplayed or qualified. For example, in one group there had been an extended discussion on the benefits of walking in relation to osteoporosis and heart disease. In keeping with the research methodology, as facilitator I paraphrased the discussion to the group to confirm whether that was indeed their theory. Yet, the response to the paraphrase, which was an invitation to confirm what they had been discussing, was to qualify the discussion, add stress then generalise about the general physical self.

> *Facilitator - So when it comes to the health effects of walking, you look at osteoporosis and heart disease?*
>
> *Female Speaker 1 - and relieving stress levels.*
>
> *Male Speaker 1 - it helps out with muscle tone as well.*
>
> *Female Speaker 1 - yes everything it seems like, you know, I know I have improved my overall sort of physical self so it is all right. (Marion Volunteers)*

Similarly, I paraphrased one participant's statements about specific benefits and she qualified the statement as follows:

Facilitator - And (to Female speaker 2) you were saying that you really wanted to get your heart rate up which is why you essentially switched from walking to supercircuit. For you what are the health benefits of exercise for you and what are your goals around health and exercise?

Female Speaker 2 - it relieves stress, it makes me feel better within my self, I get to meet other women, other single mums and that. That is about it really, tone up a bit. (Marion Volunteers)

Even in the group, which my analysis suggests were receptive to expert messages about health and physical activity, the discussion qualified the importance of specific heart health benefits and spoke of general need, stress and weight.

Male Speaker 1 – (I walk) because I need the exercise.

Male Speaker 2 - I walk to walk off tension.

Male Speaker 3 - I think we have all been told to walk so that is what we have got to do unless we want to end up back here again.

Female Speaker 1 - walking to lose weight. (Cardiac Rehabilitation Group)

In another group, the initial answer to my question about why people exercise mentioned health education messages, which again were subsequently expanded upon.

Facilitator - Why do you think people exercise, I mean, why do you exercise? Why do you go walking?

Female Speaker 1 - I think people are more aware of things, health problems, in the last few years...

Female Speaker 2 - you feel better after exercise, I mean it is easy to say I won't go today but if you go you do feel better. (Prime Timers Group)

The next quotations are yet more examples of participants citing health benefits of physical activity then immediately qualifying those reasons.

Female speaker - it is a fact that because of my age group, and I am concerned with osteo and there is a dreadful history of heart disease in my family and I look at these factors and I don't get too perturbed because I think I am doing my best, I have got a fairly good bone density business and I mean its not crash hot but it certainly isn't in the danger level and all that, so yes I am concerned, but that is not the over riding factor, I do it for enjoyment and letting go at times of fairly severe stress levels. (Marion Volunteers)

I really enjoy walking but I need that cardiovascular ... when you get your heart rate up for a certain period of time, that ... makes me feel better. (Marion Volunteers)

Female Speaker - exercise is also good, not just sort of physically but socially, because if you are walking you look at the gardens and you see other things. (Prime Timers Group)

Although one of the benefits claimed for physical activity is that it helps in weight control, this was debated by participants - who continued physical activity anyway.

Female Speaker 3 - the thing that I and scared of and I like to exercise for is I don't want to put on weight because weight makes you feel not good and we all go ballroom dancing at least once a week I guess, and it is good to go to that place where you see most people are reasonably fit and I suppose line dancing is the same, and it is just a way of feeling - anything that will keep the weight down.

Female Speaker 4 - it is not stopping me from putting on weight.

Female Speaker 3 - it is just firming up into muscles.

Female Speaker 4 - it is not working that way though I can assure you.

Speaker 2 - it is not working on me either.

Female Speaker 5 - I gave up smoking three years ago, and at my time of life also, plus I have a job where I sit down, so it is all the exercise that I seem to be doing is not helping the weight loss but I do feel better. (Prime Timers Group)

These examples indicate that the health benefits of physical activity are acknowledged and included in ordinary theories; but not as the only or major reasons for physical activity. Sometimes, participants did not experience the benefits claimed for physical activity, suggesting that experts could pay more attention to communicating the appropriate amount required: for example to control weight. Eventually, this information would be expected to find its way into ordinary theories. They also indicate the complexity of motivation for physical activity and the breadth of what may be included under the heading off health. For example health is defined as feeling better within myself, letting go of stress, specific benefits such as weight loss and increased bone density and in relation to risk factors associated with heart health. Despite all these reasons, the role of pets was often crucial:

... I've got a dog, and I try and take her for a walk at least once a day. (Arthritis Group)

I have had my dog for 12 months, she is a fantastic companion, and I knew that would get me out everyday for a walk. (Marion Volunteers)

Moderating expert advice

Many participants with chronic conditions understood the general aim of expert advice but went on to moderate that advice by listening closely to their bodies and work within their limitations to enable them to do normal daily activities.

Facilitator - You are a gardener?

Speaker 2 - yes it is the only way to relax and the doctors say you mustn't use your hands you will hurt them and all this but you find if you don't they will seize up and you've got to, but you know your limitations I could spend an hour out there but I have to come inside and lay on the bed and I usually put a tape on and ... relax and then I can go out again and ... cut the roses or what have you ...

Speaker 3 - I run ... self-management courses and that is what we try and tell people to do, just do what they can and have a break in between.

Speaker 4 - your body tells you when you need a rest, it is amazing. (Arthritis Group)

There is evidence in these quotations of ordinary theories that reflect knowledge that has been generated from participants in self help groups working in partnership with health professionals and moderating expert theories so they are included in ordinary theories.

Individual versus population risk

Chapter Six proposed that care must be taken when using the results of epidemiological studies to avoid inappropriate abstraction of individual risk from a population risk (Ritchie, 1994), because "the determinants of incidence are not necessarily the same as causes of cases" (Rose 1985 p. 34). This is a good example of Backett & Davison 's (1992) observation that ordinary theory resembles epidemiology rather than health education in that what may be a problem for a whole population does not convert for all individuals within that population. One implication of this is that health education involving physical activity should not rely solely on invoking the persuasive power of the argument that risk reduction automatically confers health benefits to the individual. Epidemiologists and ordinary theorists agree on the truth and relevance of the following example:

My father-in-law, who lived on a farm, did everything that you're not supposed to do, but lived a very long life. (Friends of Southern Hospice Field Notes)

Earlier in the chapter I defined *lay epidemiology* as the process in which individuals interpret health risks through the routine observation and discussion of cases of illness and death in personal networks and the public arena. Frankel, Davison & Smith (1991) explained poor compliance with or public indifference to health education programmes by arguing that ideas held by the general public regarding coronary heart disease are more closely associated with the concerns of epidemiologists, than with the partial representation of risk factors that underpin much health education material. Consequently, there is a strong element of public scepticism in relation to the health education messages offered.

In my study there are numerous examples of people weighing up the evidence about the type and amount of physical activity that is reasonable for them. I use the term *reasonable*, as defined by Backett & Davison (1992), to mean that participants took into account the interplay of commonsense ideas about age, physiological function, risk, and cultural norms. They observed that places in which they exercised may be polluted, or conducive to asthma and respiratory problems, but they exercised anyway because benefits outweighed the risks. They noted that health education messages and professional advice did not suit everybody and had to be tailored by the individual. They took into account their age and health problems when considering how to build physical activity into their day. One participant took account of an expert's assessment that "the odds were stacked against her" and did not accept that the meaning that she would certainly die early; in other words she accepted the probabilistic relationship between population risk and individual outcomes. In these cases, participants were, in Backett & Davison's (1992) terms, responding more to the meanings of concepts about the uncertainty of applying epidemiological findings to individuals more than they were responding to the partial representation of risk factors that underpin much health education material.

Dealing with unhelpful expert advice and interventions

Many statements which read as if they are critical of expert advice were said in a tone and context that I interpreted as understanding and insightful rather than critical; in the sense that the participants did not express anger or resentment, but calmly reported the unhelpful advice of health professionals then said how they coped with that advice by acting on their own theories. [31]

> *I'm not fit but the doctor told me to lose weight and exercise (put on weight since husband died), but didn't tell me how. I have started walking more often, but I don't like walking by myself. (Friends of Southern Hospice Field Notes)*

A friend's husband/brother was told to give up smoking, but put on so much weight that the doctor told him to start smoking again instead! (Friends of Southern Hospice Field Notes)

Speaker 1 - I told the doctor I did a little bit of walking and he said to me, you can do that and I just started so I could do it and when I came home I knew I shouldn't have done it. (Arthritis Group)

Speaker 2 - I had a hip replacement done nearly 4 years ago but the doctor left my leg 3/4 inch longer and he didn't believe me, but I have had my shoe built up, but in the mean time it has affected my other hip and my left foot because it puts you out of balance. That is why I use a walking stick now. I still go out and walk, about a half an hour. (Arthritis Group)

In the last example, the participant reported that their doctor did not believe them, but the problem was solved when they went to another health professional that helped them to use special shoes and a walking stick to make trade-offs and lead a more normal life.

Expert fatalism

Davison and colleagues (1992) argue that, with respect to coronary heart disease, the popular culture does not operate according to the assumption that risk factors are under the control of the individual (Davison, Frankel & Smith 1992). Rather, so called *lay epidemiology* places risk factors in the context of heredity, social conditions, the environment, fate and religion. In the following example, there is agreement between the person and their doctor about the role of genetic factors, although the doctor provided no strategies to cope with the genetic issue. Nevertheless, the speaker expressed neither resentment nor frustration about what could be interpreted as a risk factor with no prospect of reduction. In further discussion, I gained the impression that the speaker in the quotation below did not believe that be odds were totally stacked against him and he agreed with is statements to the effect that there are were many things that could be done to improve quality of life. The speaker seemed rather proud that he had lived many years longer than his brothers had:

I had five brothers ... 4 died of heart attacks, 1 had a by-pass operation and my father had heart trouble. When I went to the specialist he said that 'the odds were stacked against me'. (Friends of Southern Hospice Field Notes)

---

[31] My impression, which I did not test at the time, was that participants did not go back to their doctors to discuss the problems they experienced with advice.

Implications for health promotion and policy

Diversity and conflict in ordinary theory

My earlier analysis suggested that older participants developed diverse, sometimes conflicting theories, to explain their hypothesis that stress causes illness. Differences between peoples' theories were particularly evident in relation to gender, some thinking that women's unpaid work is more stressful than men's paid work, while others thought it was the other way round. Some thought that work stress had decreased over the years; others thought it had increased. In relation to safety, the presence of people on the streets reassured some that walking was safe, but made others more fearful of walking. In relation to the connection between social support and physical activity, older participants say that men are less likely to arrange to see people and that women usually make arrangements. This can lead to older men staying at home and reducing daily physical activity. Men and women say that women face more difficulties in walking because of perceptions that the streets are unsafe.

My analysis also demonstrates that participants dealt comfortably with the complexity of lay epidemiology, acknowledging the uncertainty involved in translating population risks to individual outcomes. During the focus group discussions, participants did not express discomfort when faced with diverse theories or complex and uncertain relationships.

My earlier discussion about government structures to foster participation (Commonwealth of Australia, 1996) noted that the composition of the community cannot simply be taken for granted and there will be different views about issues within and between communities. Moreover, some communities and individuals have greater capacity and more opportunities to articulate their views by virtue of their status in the eyes of government bureaucracies. There is an emergence of a plurality of social movements, pressures and interest groups. Building on this discussion, I recommend that, for the development of both health promotion programmmes and policies, we develop reliable and fair mechanisms to ensure that the *unorganised* and *organised* communities of interest are represented. In the process, we should acknowledge that there will be diverse views within and between communites and thus experts and governments must resist attempts to normalise or homogenise and to resolve conflict to for the sake of an appearance of harmony. We should also acknowledge the capacity of people to distinguish between population and individual outcomes, weigh up evidence and modify their own health promotion plans. In doing so, we should avoid the marketing-driven principle of oversimplifying a message to the point where simplification obscures diversity and complexity.

Developing personal skills when ordinary and expert theories differ

Earlier in the chapter I presented a number of examples of participants modifying or ignoring expert advice which did not work for them. Sometimes the advice was incomplete and participants had to seek out more information or experiment for themselves. On other occasions, experts did not accept the statements of participants; for example the person whose doctor would not accept that after an operation one leg was shorter than the other. In these cases, my interpretation is that participants *worked around* unhelpful or incomplete advice, and certainly did not report debating the advice they received with an expert. Explanations for this may well involve generational factors, whereby the historical respect and acknowledgment of power and status older people have for experts prevents them from voicing disagreement. In addition, they have considerable life experience, and opportunities in their groups and networks to compare notes and learn from the experience of others. Participants develop their own *pastiche* of health promotion and physical activity. This results in individuals adjusting to the health system, which in turn does not receive feedback from patients about the true relevance of advice that is given.

For Ritchie (1991), the Ottawa Charter's principle of *developing personal skills* can be used in health education that provides opportunities for people to contribute to the reorientation of the health system by learning skills of self-assertion, negotiation, decision-making and conflict-resolution.

A recent development in Australia which is designed to provide opportunities to reorient the health system is the *Consumer Focus Collaboration*. According to its strategic plan, the collaboration grew out of a *National Expert Advisory Group on Safety And Policy in Australian Health Care* which was established by health ministers at the Australian Health Ministers Conference in October 1996 (Consumer focus collaboration strategic plan 1997/8-2001/01 1998). This expert group was asked to make practical suggestions to improve safety and quality in Australian health care services, as well as directing and influencing some important initiatives addressing the recommendations of a previous Task Force On Quality In Australian Health Care that had recommended redesigning health care systems with stronger focus on, amongst other factors, more involvement from consumers. The *Consumer Focus Collaboration* was established in 1997 to implement recommendations highlighting the key importance of consumer participation in health care. The vision of the consumer collaboration is for health care system which:

- focuses primarily on the needs of potential and actual users or health services in order to achieve optimal and acted health care and Australia;
- provides frameworks and opportunities for health consumers to participate collaboratively with health organisations and service providers in health service planning, delivery, monitoring and evaluation at all levels in a dynamic and responsive way.

In support of the vision, the strategic plan acknowledges a growing body of evidence which indicates that there are groups of consumers who experience particular barriers to access to health services and have difficulty providing effective feedback to health services about their experience. The strategic plan also cites a number of studies showing a positive relationship between improved consumer involvement in their own health care, supported by the provision of health information, with improved health outcomes. The strategic plan suggests that improvements in access to health information can influence health outcomes by increasing consumer choice, improving service quality and promoting consumer rights. The plan notes that feedback from health consumers suggests that, while consumers and their families value high-quality clinical care, they also value:

- having their social, emotional and practical needs taken into account;
- being treated as active participants in their health care;
- receiving information and communicating with service providers that increases their capacity to make informed choices;
- being treated with dignity and respect.

As the strategic plan states, it is important to ensure strong linkages are made between available evidence and research on consumer participation practice and standards used by health services to evaluate and improve quality. In order to improve communication between providers and consumers the strategic plan proposes that undergraduate and postgraduate curricula for medical and other health service providers should have specific elements recognising consumers as active equal participants and more broadly promoting a collaborative approach between providers and consumers. In order to implement the strategic plan, the Commonwealth Department of Health and Aged Care established the Collaboration, comprising a committee representing Commonwealth, State And Territory Health Services, consumer groups and professional and health service groups. The collaboration will soon be joined by consumer organisations representing rural consumers, those with chronic illness and representatives of the acute private sector.

The collaboration has established a number of projects which were advertised as tenders. Projects include:

- the development of a National Resource Centre For Consumer Participation in Health;
- education and training for consumer participation;
- stock-take of models for facilitating consumer access to health information;
- support for nurses to involve consumers in their health care;
- support for the efforts of medical practitioners to involve consumers in health care;

- a model for selecting and supporting consumer representatives;
- communication and clinical outcomes;
- development of a toolkit for consumer participation. [32]

In this Australian example, consumer participation has gained a place on the health policy agenda in association with the discourse of patient safety and quality of services, rather than via explicit reference to the Ottawa Charter or the new public health. This is an example of the opportunity for implementation strategies for the Consumer Focus Collaboration to link the discourses of the new public health with those of safety and quality on the policy agenda.

I have concluded from my research that participants learned from experts, modified expert advice, yet were unlikely to debate their own theories or disagreements with the experts. These conclusions are supported by research on general practice consultations in South Australia (Winefield, Murrell, Clifford & Farmer 1995). The researchers examined transcripts of 210 consultations between 21 general practitioners and 10 patients of each and distinguished between three types of consultations. *Psychosocial* consultations involved counselling or information giving, *complex* consultations involved multiple problems or doctor-patient tensions and *straightforward* consultations which either were uncomplicated or in which doctors initiated discussion of lifestyle or psychosocial issues.

In straightforward consultations, which accounted for fewer than half of those sampled, doctors sometimes attempted health promotion but patients did not seem very keen. Doctors' greater satisfaction after these consultations was explained by the researchers as related to their shortness and their clarity.

Doctors tended to feel unsatisfied after spending a lot of time in complex consultations (involving multiple problems or disagreements). However they, did not mind spending similar amounts in psychosocial consultations, in which they initiated information giving or counselling. There was some clash of goals in these consultations: while patient satisfaction increased when the consultation was patient centred, doctor satisfaction was related to lower levels of patient involvement. The researchers suggest that a more assertive, participatory patient style may only be welcomed by doctors who have learned to see it as a desirable outcome of the patient education process.

Another analysis of general practice consultations concludes that most patients withheld information from their doctors, and few asked questions or expressed doubts in an overt way

---

[32] I was involved in the latter project, in a Consortium which aims to provide a practical toolkit of approaches and strategies to assist service providers and consumers in the planning, delivery, monitoring and evaluation of health care services. In the process of developing this toolkit, our Consortium attempted to build on the existing agenda's emphasis on safety, quality and health outcomes by adding values and strategies on community participation from the Ottawa Charter for Health Promotion. However, there was strong resistance from government and some consumer groups to linking consumer participation with power.

(Tuckett, Boulton, Olson & Williams 1985). These authors conclude that, while patients wanted to have their views heard and made covert attempts to do so, they believed that they are not meant to be active in the consultations. The authors conclude that doctors and patients frequently did not establish a dialogue, doctors did little to encourage patients to express their views or actively inhibited such expression. While four out of five, patients often provided covert hints that they had ideas and a viewpoint, only half made this explicit and only a small number discussed their own theories or openly disagreed with doctors. The lack of a dialogue may explain in part why, in an Australian study, general practitioners who gave advice about physical activity were more likely to give general, rather than specific, advice on physical activity; although the reason the doctors cited for this was lack of time (Bull, Schipper, Jamrozik & Blanksby 1995).

Tuckett et al (1985) followed their analysis of consultations with discussions with the doctors in the study about the proposition that they could pay more attention to lay theories in their consultations. While the doctors expressed initial enthusiasm, this masked the confusion, anxiety and outright hostility about exploring lay theories. For example, they expressed doubt about the wisdom of letting patients talk too much and argued that they knew what a patient thinks without having to ask. The researchers proposed that doctors had four theories about patients' understandings and theories:

- it is right to get patients to talk because that can help a doctor to be aware of their problems;
- it helps to establish rapport and avoid appearing superior;
- lay theories provide clues about how to reassure patients;
- a few found it difficult to view lay theories as anything more than indicators of ignorance and superstition.

The findings of Winefield et al (1995) and Tuckett et al (1985) support my observations that participants in my research moderated expert theories and developed their own theories without explicitly discussing what they were doing with the experts themselves. Explanations for this seem to involve the way health professionals construct their roles as experts who diagnose, prescribe and give information in short consultations. People in the role of patients, on the other hand, feel discouraged from being assertive and do not see themselves as having the power to play an active role with experts. This means that, for any policies about consumer participation to result in real changes, there must be opportunities for participants in my research to have their theories and disagreements heard and respected by the experts they consult.

This is reminiscent of Schon's (1987) description of the topography of professional practice as a high, hard ground overlooking a swamp. On the high ground, manageable problems can be

solved using research-based theory and technique, or instrumental problem-solving based on positivist philosophy. However, in the swampy lowland, messy, confusing problems defy technical solution and involve *problematic* or indeterminate situations (Schon 1987). From my findings, I suggest that strategies to promote physical activity that draw on a socio-environmental approach must, in Schon's (1987) terms, descend into the swamp of indeterminate, conflicting, yet important problems. For this to happen, Schon (1987), argues that there must be fundamental changes in professional education, which predominantly embody the idea that practical competence becomes professional when its instrumental problem solving is grounded in systematic, preferably scientific knowledge.

In this section I have speculated about changes to professional education and practice which, given my data on conflict between explicit an ordinary theory, may contribute to improved communication between experts and the community. This is, of course, speculation which it would have to be tested by further research.

Results about ordinary theorising and chronic conditions: listening to your body and doing it yourself

Research into families and children with lifelong chronic conditions reveals strong, evolving relationships between people managing chronic conditions and health professionals (Robinson 1993). This is relevant for participants in Study 2, such as the arthritis group, who were a self-help group who aimed to provide health information and who therefore worked closely with health professionals. Robinson (1993) argues that the dominant story for many individuals and families managing a chronic condition is one of normalisation, that is they are essentially normal people leading normal family lives. This contrasts with the dominant societal story of deviance and difficulty. Normalisation involves doing normal things (such as engaging in routines) and making trade-offs (such as using mobility aids to enable people to walk as part of visiting family and friends).

Doing normal things and making trade-offs

Participants with arthritis frequently nominated as a benefit or reason for exercise the need to keep the joints mobile. In doing so, they frequently used, the term *on a good day*, suggesting that the link between the decision to exercise and their ability to overcome physical mobility difficulties was not mechanistic, as in a clockwork model of health, but part of continuing

assessments about their health that could vary from day today. To keep mobile, some planned their day to include exercise:

> *... people say get a taxi, go, but you've got to try and move your joints. (Arthritis Group)*

In this section there are further examples of participants doing normal things the best way possible and making trade-offs.

> *Speaker 2 - ... with the arthritis ... we are inclined to get a smile on our face and hide what is wrong with us and they say, gee you are looking well, as though there is nothing wrong with you.*
>
> *Speaker 1 - oh if you could only see me first thing in the morning.*
>
> *Speaker 1 - you can't look at someone and say I've got arthritis ...*
>
> *Speaker 3 - that is the main thing with arthritis isn't it, you learn to live with it and do things the best way that you can, and that means not staying home, and*
>
> *Speaker 2 - to get out and forget about your problems and have a smile on your face and forget that you are aching like crazy.*
>
> *Speaker 1 - my body tells me I can walk but my feet won't (all laughing) (Arthritis Group)*

The last quotation illustrates a theme from research on lay perceptions of the body in the context of arthritis, that is concern about particular body parts. (Williams & Barlow 1998). Throughout the quotations there is considerable emphasis on the mental aspects of the chronic disease: getting a smile on their face, learning to live with it, forget about the problems. This fits with the now familiar finding that physical health, mental health and physical activity are all connected.

Taking control and really listening to the body

Part of doing normal things is developing the ability to listen to the body, planning how to build physical activity into the day and making adjustments. Often this involved re-evaluating earlier theories about the appropriateness of such things as sleeping at lunchtime or resting during the day.

Speaker 1 - I mean I could spend an hour out there but I have to come inside and lay on the bed and I usually put a tape on and that is the time that I relax and then I can go out again and do whatever, cut the roses or what have you, but you must have that time in between to go and lay down and relax and have just a little bit of light music, piano music and do your exercises and breathe in and out and all this jazz, and you are fit again. You are ready to go out and start again, otherwise people say to me, I'm not going anywhere I've got arthritis (all laughing).

Speaker 2 - well I run courses, self management courses and that is what we try and tell people to do, just do what they can and have a break in between.

Speaker 3 - but you learn, your body tells you when you need a rest, it is amazing.

I used to always think, oh sleeping at lunchtime, this isn't ... (right) but now I know that if I don't lie down I go and have to lie down and then I feel good again.

Speaker 1 - your body tells you.

Facilitator - Some of you were saying earlier that one of the ways that you deal with your arthritis is that you listen to your body.

(All agreed)

Facilitator - So you get very sensitive to what you have to do and when you have to rest? So for you is exercise about keeping your joints mobile and getting out to see people.

Absolutely (from everybody) (Arthritis Group)

Again, the last paraphrase reflects the important way physical activity helps to maintain mobility in order to maintain social contacts.

Theories about health and physical activity vary through life, with participants arguing that physical activity must be suitable for the particular stage in life, often requiring aides such as walking sticks and seeking to avoid overdoing it and using up the body's reservoir of capability for physical activity. As theories change, participants incorporate helpful and salient aspects of expert knowledge, while modifying unhelpful device and acting in accordance with theories that differ from those espoused by some experts. Here, there is relevance in Robinson's (1993) view that people with chronic conditions have strong, evolving relationships with health professionals as they make trade-offs to engage in a normal life.

Normal stories and passports to life

My findings are consistent with research concluding that the dominant story for many individuals and families managing a chronic condition is one of normalisation, that is they are essentially normal people leading normal family lives. This contrasts with the dominant societal story of deviance and difficulty. This is relevant for participants in Study 2, such as the arthritis group, who were a self-help group who aimed to provide health information and who therefore worked closely with health professionals. Physical activity was predominantly a means: to keep joints mobile and to have a passport to the world, see people and complete life's normal activities. Participants weighed up the evidence to balance what physical activity to engage in, how much and with what assistance.

These participants had seen many experts over the years, and experts provided valuable input into the arthritis support group. However, the dominant story was one of participants really listening to their bodies and making their own decisions; even when the action was in conflict with an expert's theory.

As in the conclusions I report from my study, the research from the Australian Sports Commission (1996) reports a number of motivators or benefits for physical activity; many of which are connected to taking part in and enhancing normal life. Some motivators of physical activity are:

- fun, pleasure, enjoyment;
- socialising;
- sense of achievement, accomplishment;
- variety, new experience;
- passport to society;
- gives confidence and reduces self-consciousness.

A social component contributes enormously to the fun/enjoyment of the activity. People enjoy socialising; "*being with friends*", "*having a laugh.*" The researchers conclude that exercise as frequently seen as outcome, rather than a purpose.

Implications for health promotion and policy

One implication is that interventions based on a narrow interpretation of a behavioural model are unlikely to be as effective as for people who have experienced a sudden, major health scare. There is unlikely to be a simple, expert prescription with images, meanings and implementation strategies that are sufficiently salient to persuade people that physical activity leads directly to specified health benefits. Rather, it is more important for people to be encouraged to listen to their bodies, draw on their knowledge and experience and weigh up

how best to plan for the most normal life. This suggests that policies and programs should not compartmentalise chronic diseases as discrete specialties, treated as a series of acute episodes.

In an earlier section I discussed consumer participation and noted that the *Consumer Focus Collaboration* could provide an opportunity to re-orient the health system to provide greater opportunity for people to discuss their own theories and treatment with health professionals. Another reform initiative that may help re-orient the health system so that chronic illness may be viewed as a normal life story is the South Australian part of a national trial of models of co-ordinated care.

In South Australia, co-ordinated care trials are known as *SA HealthPlus*. Their official description (Commonwealth of Australia, 1999) cites as reasons for the trials: escalating costs of the public hospital system, spiralling costs in the medical and pharmaceutical benefits systems, an ageing population and pressures for governments to curb outlays. These are current pressures for change in the Australian health system. Co-ordinated care trials are an attempt to change the health system in ways that are culturally appropriate for Australia, so they copy neither the American nor the English programs. In South Australia, they claim to look to the English system for decision-making processes which take into account the patient's needs as much as possible and to the American system for a recruitment model whereby patients are recruited into a continuous service with ongoing health gain identified as an objective. Co-ordinated care trials claim to represent a paradigm shift from a model of health service delivery based on funding to one based on outcomes. The current paradigm is described as having the following basic characteristics:

- health services are largely fee for service based;
- the system is not integrated;
- significant components of the health system, in particular secondary and tertiary systems, tend to be disease focused and prevent health practitioners from responding to a broad range of issues which have an impact on their clients;
- the health system is predominantly provider and practitioner controlled;
- the funding systems are supply management strategies.

By contrast, co-ordinated care trials aim to achieve a fundamental shift in the underlying principles of health service management. Rather than controlling the cost of hospital admissions, they seek to reduce admissions and to implement systems that achieve population health goals (Commonwealth of Australia,1999).

One of the features of co-ordinated care trials which is relevant for my research on ordinary theory is the proposition that if the health system is going to be more client-centred, with the

arrangement of services reflecting individuals' health goals and thus contributing towards patients achieving these goals. In this model, patients are supported by their medical practitioners in understanding the health status and developing their own goals. The patients should therefore control the health services which they receive (Commonwealth of Australia 1999).

In order to reorient the health system so that it is more patient-centred, it is necessary to examine the culture and structure of medical practice, which limits the ability of providers to meet the clinical and self-management needs of chronically ill patients (Wagner et al 1996). According to Wagner et al (1996), medical practices are organised to respond to the acute and urgent needs of their patients. The emphasis is on diagnosis, ruling out serious disease, and curative or symptom-relieving treatments. Because primary care practices and practitioners are so oriented to acute illness, they may not differentiate their clinical approach to patients with acute and chronic illness. In this culture, it is difficult for even the most motivated and elegantly trained providers to ensure that patients receive the most appropriate systematic assessments, preventive interventions, education support and follow-up. According to *dual task theory*, when confronted with multiple tasks, providers first perform those in which they have the greatest emotional investment and for physicians this is the fear of missing serious illness. This may explain the preference for *symptom swatting* over routine assessment, counselling and other elements of good chronic illness care. One of the essential elements of good chronic care is collaborative problem definition, whereby both patients and providers contribute their perspectives and priorities to defining the issues to be addressed by clinical and educational interventions. One of the barriers to high-quality chronic care is the fact that the health system is largely organised around a conventional 15 minute consultation. This discourages comprehensive assessment, counselling and care planning.

In relation to chronic conditions, I recommend that in order to elevate physical activity on the policy agenda both within and outside the health sector, health promotion strategies support communities of interest (for example self-help and consumer groups) to work for change in policy and program structures. The aim of the change is for people to be able to relate to a health system that enables them to adopt a normal story or theory of chronic disease and as a consequence to take long term control over their physical activity and associated lifestyle factors.

In relation to participation in policy development, I recommend that the appropriate level in Baum's (1998) continuum of participation is *substantive participation,* whereby people (for example with chronic diseases) are actively involved in determining priorities and implementation, although the initiative may well be externally controlled, for example by health departments. With some shift in power to communities of interest, this type of

participation may lead to structural participation over time; for example building on the co-ordinated care trials described earlier.

I recommend this level because, while there are established links between communities of interests and experts, and some cross-over of theories, there are areas where substantial negotiation must take place; for example to change the story and power balance from one based around serial acute admissions to one of normalising chronic conditions over the lifecourse. This would lead to the involvement of policy actors representing health services and self-help or consumer groups. However, it would be important to include peak organisations or other advocacy groups to advocate for a shift in power.

Implications for approaches to promoting physical activity

Different ways for public health to draw on psychology: from behavioural to lifestyle

On the basis of my synthesis of the results from Studies 2 and 3 on ordinary theorising and a review of the associated literature, I conclude that, in relation to the promotion of physical activity, medical and behavioural approaches rely on short consultations, a cultural context that is dominated by the perspective of diagnosing and treating acute illnesses, and an expert-led system that privileges rationalist and positivist approaches to theorising. When approaches informed by 1970s behavioural psychology were introduced into public health, they developed a distinctive public health approach incorporating behavioural epidemiology and social marketing in an attempt to define messages which could be delivered to individuals and disseminated to the masses by social marketing techniques. From my results, there are many instances in which this approach is consistent with the way participants theorised and is valued by the participants. When expert and ordinary theories are relatively consistent, it is more likely that health promotion will be effective. In these cases, an implication for health services policies is to continue with current, effective, interventions and health education.

I have, however, found a number of instances where there are inconsistencies between ordinary and expert theories. In response to this observation, there are a number of options. One option is to suggest more research in order to discover how best to refine and disseminate a message so that it will be understood by people with who then adjust their theories towards expert theories, resulting in greater participation in moderate physical activity (Owen & Crawford 1998). A second option is to argue that medical and behavioural approaches are valuable in certain circumstances, and therefore to concentrate on the research question:

Under what circumstances are these approaches effective and when do they start to lose effectiveness?

In my research I have found that procedures and descriptions about physical activity that are advanced by experts are an important component of knowledge about physical activity and are taken into account in a range of ordinary theories. Expert knowledge, procedures and descriptions are particularly important for participants in my research who suddenly experienced acute illnesses. However, expert knowledge procedures and descriptions start to lose their *instrumental*, or immediate effectiveness, as the complexity increases. One example where complexity increases is with participants who are attempting to construct a normal story of chronic illness amidst interactions with a health system dominated by a culture of dealing with serial acute episodes. Another example is the many participants who theorised that health is a means for physical activity, rather than an end for physical activity and debated *reasonable* rather than *rational* risks. Two examples are changes in patterns of physical activity over the lifecourse and in response to decisions about the ability or capacity of the body to engage in physical activity.

I propose that, at the point where the participants in my research interact with the health system, there are cultural and structural barriers in the way of participants and experts collaborating and debating their respective theories about physical activity.

In short, medically-oriented consultations, there are cultural barriers involving the role of the expert in the acute context and structural barriers involving fee for service and short consultations in health care systems with a poor record of continuity of care. There are similar barriers in consultations and campaigns strongly influenced by 1970s behavioural models, behavioural epidemiology and social marketing. Such barriers are acknowledged by Neville Owen and a colleague (Owen & Crawford 1998) when they note that the disadvantages of these strategies include weak engagement of users, unreliable effects, dilution and distortion of content and difficulties with sequencing and follow up (Owen & Crawford 1998).

I propose that the promotion of physical activity that is currently described as the behavioural/lifestyle approach could emphasise the *lifestyle* over the *behavioural* descriptor. In doing so, the lifestyle approach could draw on methods with a different psychological heritage and:

- acknowledge that health can be a means, an *end,* a *prerequisite* or an *outcome* of physical activity and does not have to be based on the primacy of health as an *outcome*;
- draw on *constructivist* rather than *rationalist* or *objectivist* assumptions that reject ordinary theories as merely subjective. This would lead to changes in the role of the expert, from one who dictates a procedure or description to one who works

collaboratively with ordinary theories and seeks to come to a collaborative understanding of problems and solutions;

- be informed by research that explores the optimum conditions for using a lifestyle approach and acknowledges when a lifestyle approach is likely to lose its effectiveness;
- add a *developmental* rationale to the existing *instrumental* rationale for providing information and advice about physical activity. This means acknowledging that there is a potential for a *multiplier* effect arising from mutually satisfying, collaborative consultations about the promotion of physical activity. According to this *multiplier* effect, collaborative theories that are developed in a relatively small number of people as a result of mutually satisfying consultations and health education would then be disseminated widely by participants as they discuss their theories with friends family and support groups. In this way, the popular discourse about physical activity could be transformed to incorporate more rich and complex ideas. As a result, both ordinary and expert theories would be transformed and it may be easier for the disciplines and experts are like to design strategies to promote physical activity that are personalised and take into account complexity.
- reduce the influence of the motivation behind the lifestyle approach of seeking to generalise its reach to the maximum range of problems that are assisted by increases in physical activity in a way that can be delivered efficiently and with marketing techniques, for example as recommended by Owen & Crawford (1998). Instead, a lifestyle approach would acknowledge that, in order to be effective, it requires more time with participants and that dissemination can be achieved by new health promotion strategies becoming part of popular discourses about physical activity;
- participate in strategies to increase consumer participation in the health system, reorienting the interactions between providers and patients so they are more patient-centred and to support initiatives such as co-ordinated care trials which attempt to introduce into the health system culture the perspective that chronic illness can have a normal story and that continuity of care is important. In these ways, the lifestyle approach would assess where it was most effective and seek to play a reforming role in the health system.

According to my analysis, the consultations between health professionals and participants assume importance beyond the immediate or instrumental purpose of diagnosis and treatment leading to *procedures* and *prescriptions* about physical activity. The consultation is an important point where the participants in my research interact with the health system and they listen, observe and take away information that they combine into a theory on the basis of reflection, discussion with others, and participation in popular discourses about health and physical activity. On the basis of their ordinary theorising, they develop a *pastiche* of physical

activity that works for them. This is what I describe as the *multiplier effect* of expert-patient consultations, where cultural and organisational changes in the health system would flow through to new discourses about health and physical activity that reflect dialogues between experts and communities about their respective theories. In my research there are examples of *parallel multiplier* effects, whereby experts and patients separately went away from consultations and continued to theorise, but in the process they were not dealing openly with problematic or disputed issues.

Whose theory in a socio-environmental approach?

In Chapter Two I noted that the Ottawa Charter sets out the defining characteristics of the new public health and integrated many different perspectives on health promotion (Baum 1998). In doing so, it built on medical and behavioural or lifestyle approaches and directed the task of health promotion towards a multi-pronged and multilevel strategy. I define an archetypal socio-environmental model as one that integrates the three approaches to health while it focuses on settings, views health as a means of achieving goals and being in control and addresses socio-environmental risks. It seeks to find out and take into account ordinary theories as people participate in action and decisions about health (Baum 1998). Consistent with the common interpretation of the Ottawa Charter, a socio-environmental model builds on and incorporates strategies from medical and behavioural models.

There is evidence for this archetypal model in the analysis of data in this chapter. Health and physical activity are frequently defined in relation to their contribution to social and emotional goals and to control over life. There are numerous social and environmental barriers and supports for increasing participation in moderate physical activity. Ordinary theories discuss the importance of the so-called intersectoral considerations that have been examined to support participation in decisions about physical activity, for example aesthetic environments, effective transport systems and safety.

Within a socio-environmental approach, what I describe as the *multiplier effect* of expert-patient consultations would be a mutual multiplier, characterised by cultures and organisational structures in the health system that develop new discourses about health and physical activity as a result of sustained, respectful dialogues between experts and communities about their respective theories. These dialogues would occur not only during expert-patient consultations, but also during debates about policy and service strategies that characterise substantive participation of consumers in the health system. At another level of participation, these dialogues would be consistent with what Baum (1998) describes as *structural participation*, or an engaged and developmental process in which community control predominates. While the initiative for such participation may originate outside the community, the goal is for control to be handed over to the community.

In this approach, the disciplines and experts would discuss their respective *prescriptions, procedures* and *pastiches* around physical activity and would each assume the role of *bricoleur.* This approach is not without its difficulties. As I noted earlier, bureaucratic structures are built around expert knowledge (Putland, Baum & MacDougall, 1997) and, under current understandings of administration and management in the public sector, this can lead to the health departments stating specific goals and targets and using a tendering process to contract out a number of discrete projects. The tender and contract process deals best with products that can be defined and described precisely and that are evaluated against short term outcomes using rational, scientific methods. In relation to the promotion of physical activity, the tender and contract process is more suited to the *prescriptions* and *procedures* of medical and behavioural approaches than to the more complex *pastiches* of the socio-environmental approach.

Therefore an important challenge for the new public health is to analyse how best to advocate for the cultural and organisational structures that are suitable for the complex, diverse, long-term and developmental aspects of a socio-environmental approach that takes seriously ordinary theorising and which blurs the current distinctions between experts and ordinary theories. Milburn (1996, p. 41) asks the question:

> *When we talk about theory in health promotion, whose theory do we mean?*

For Milburn (1996), the dominant approach to health promotion uses theory to provide explanations which abstract and generalise from empirical reality and facilitate a more logical and rational approach to practice. Theory aims to reveal order in what seems to be chaos and provides the basis for a clear, ordered, rational approach to practice, as in the analogy from earlier in the chapter of professionals seeing to inhabit the high ground rather than the messy swamp (Schon 1987). Milburn (1996) argues that this approach tends to begin with a biomedically derived definition of health and then explores people's attitudes and behaviours accordingly. This hypothesis-testing approach constrains the health promotion agenda by shaping the available body of knowledge about lay concepts of health and illness. In particular, Milburn (1996) argues that behavioural approaches to health promotion implicitly, if not explicitly, separate individuals from the complex social physical and economic environments in which they live: the indeterminate swamp (Schon 1987). Because of this, Milburn (1996) argues that until the question of *whose theory* is addressed, the process of formal theory development may fail to ground research for health promotion within the rubric of empowerment, participation and a negotiated agenda for action that is espoused by many practitioners. Milburn (1996, p.42) argues that

"a questioning of the derivation of the existing theoretical based in health promotion could begin the process of attributing greater validation to lay theorising as an essential feature in the development of culturally relevant theory and practice."

It is thus appropriate that I have addressed Milburn's (1996) question of *whose theory* using the perspective of *constructionism* to underpin the qualitative research methods in this thesis. According to Crotty *interpretivism*, which he describes as a theoretical perspective consistent with constructionism, looks for culturally derived and historically situated interpretations of the social life-world. Interpretivism is thus an appropriate perspective for research recommended by Milburn (1996), with her interest in the cultural and the historical contexts of theorising. Crotty (1998 p.71) describes *symbolic interactionism* as an interpretivist perspective that "... explores the understandings abroad in culture as the meaningful matrix that guides our lives." He describes three basic assumptions of symbolic interactionism as:

- human beings acts towards things on the basis of the meanings that those things have for them;
- the meaning of such things is derived from, and arises out of, the social interaction one has with others;
- these meanings are handled in, and modified through, an interpretive process used by people in dealing with the things they encounter.

In the course of my analysis it became apparent that ordinary theory can be obvious, obscure, complex, problematic and contradictory: as in the analogy of the indeterminate swamp. In order to avoid the tendency to reach for the professional high ground, I found it useful to draw conclusions not from isolated text units, but from longer exchanges in which the meanings emerge from longer interactions in the in focus groups. Many of these exchanges in turn reflect meanings derived from interactions between the participants and experts, which are explored further in the next chapter's focus on settings, health promotion and policy.

Chapter 8
Emerging analysis for healthy public policy about physical activity and settings

In Chapter Four I identified two research questions about settings and physical activity:

> *What are the constraints on choices to increase moderate physical activity and what needs to be done to make those choices easier?*
>
> *How can the environment of those who find it difficult to build moderate physical activity into their day be changed so that they find it easy to choose to build the type of moderate physical activity that they value into their day?*

Studies 2 and 3 address these questions by exploring the experiences of groups identified by Study 1 with lower levels of physical activity. In this chapter I describe my emerging analysis for policy, then use case studies from the data to explore policy changes, drawing on force-field analysis. The case studies are not independent, but different distillations of data from the same set of interviews and focus groups.

The methodology is informed by the paradigms of *social constructionism* and *critical inquiry*, so I do not make claims of objectivity and the related terms of validity or generalisability. My argument about the nature of the truth claims is that if I theorise from the experiences of those who find it difficult to be physically active I can develop recommendations that should be of benefit to many people. If the environment supports the choice to be more active for participants who had difficulties building physical activity into their day, then the resulting policies, designs or quality standards should also make environment more supportive for such diverse groups as children, older people and even elite athletes with a temporary injury!

I then combine the discussions of case studies with the analysis of ordinary theory from Chapter Seven and the history of discourses around physical activity and public policies from Chapter Five. By referring to policy actor networks (Considine 1994), I address the *analysis for policy* questions based on Studies 1-4 of:

> *What is the role of the social and political environments in relation to moderate physical activity choices and what needs to be done to ensure supportive settings?*
>
> *What are some ways to place the goal of increasing participation in moderate physical activity on the relevant public policy agendas for the twenty-first century?*

I describe my analysis as *emerging* because it contrasts with a dominant set of policies based on behavioural theories about physical activity [33] and as theorising about *settings* because it looks more for explanations about levels of physical activity[34] to the interactions between individuals and their settings than to the individual's decisions about discrete behaviours.

In this chapter I analyse my data in order to propose specific effects of settings on physical activity, drawing on the previous chapter's methodological observation that it was more useful to use extended dialogues than to theorise from small text units. Similarly, in my data analysis in this chapter using the *indexing* stage of the *Framework* approach (Ritchie & Spencer 1994) I observed that examination of many small text units in isolation could lead to inconsistent, even contradictory, policy interpretations. For example:

- the presence of other people on the streets made it feel safe enough for some participants to walk but unsafe for others;
- some participants valued a community with facilities designed for their particular needs while others enjoyed a community with a diversity of people and services;
- I noted differences in the ordinary theories of those with acute and chronic conditions. Yet people can experience both at the same time (for example arthritis and a sudden heart attack), chronic conditions can involve acute episodes (for example hypertension) and the aftermath of an acute episode can be a chronic condition (for example after stroke). The differences I noted in theorising are not likely to be as stark or meaningful in the general population;
- some participants wanted most facilities to be friendly and welcoming to all while others preferred facilities that catered for people with like values.

Such micro and contradictory findings cannot be taken one by one and turned into public policy. When I commenced *charting* the data, I selected representative case studies to reflect thematic references that I use to explore options for changing environmental and policy settings. The case studies, while specific enough to be amenable to analysis, represent the range of issues from the discussion of results of Studies 1 to 3. If policy changes were to flow on to action to change the settings described in the case studies, these settings would support increased levels of participation in moderate physical activity at least for the participants in the research, and most probably for a range of other groups as well.

---

[33] I discussed behavioural theories in detail in Chapter Two and in Chapter Seven on ordinary theorising.

[34] In Chapter Two I reviewed calls by researchers from within the behavioural and epidemiological approach for a more social or ecological theory. Chapter Two also reviewed a number of Australian studies that support the move to broaden the range of factors that are examined as potential correlates or determinants of physical activity; in particular environmental factors.

The next section describes and illustrates the steps I take to develop the analysis for policy, leading to recommendations that are sufficiently specific to be able to vie for attention amongst the crowd of issues clamouring to get on the policy agenda.

Step 1: Define themes that describe a setting's support for physical activity

Using the *Framework* model (Ritchie & Spencer 1994) I distilled three *thematic references*: locating *in space, moving through space* and *relating to people in space*. Each links human agency and structural and environmental factors to avoid explanations that privilege one over the other and uses a verb to acknowledge the active relationship between persons and settings.[35] The three thematic references became coding terms which wree used to locate examples in the transcript using NUD.IST. I then went back to the complete transcripts to locate each case in its context.

Locating in space

I use *locating in space* to refer to the way experiences of the settings where participants live, work, shop, play (including the facilities and services they use) influence, and are influenced by, experiences and decisions about moderate physical activity. Participants in the studies locate themselves not only in the immediate vicinity of their home (in a geographically defined community) but also (where appropriate) in settings away from their home; including in communities of interest.

Locating in space does not just refer to the present. Rather there is a time dimension in that:

- participants in the studies make decisions about where they need to locate themselves according to their age, stage and particular needs;
- participants in the studies perceive that their locations in space have changed since they were younger and that these locations might change over time.

From Study 3 I noted the importance of destinations and concluded that physical activity was rarely regarded as a discrete event to be added on to daily life. On the contrary, participants frequently discussed how they planned their daily activities in order to incorporate physical activity into both leisure and travel between destinations.

---

[35] In Chapter Four, in the description of the methodology for Studies 2 and 3, I describe in detail how I developed these thematic references.

Table 8.1 summarises the aspects of destinations that made it easier to incorporate physical activity into the day.[36] From Table 8.1, it can be concluded that a range of convenient facilities close to home are valued in their own right and provide an opportunity for people easily to decide to build activity into their day. Participants valued low traffic volumes in suburban streets because this made it easier and safer to incorporate walking into the day.

Table 8.1 shows two ways in which participants said that it was important for destinations to be convenient. The first was as venues for physical activity such as a beach (for unstructured physical activity) or recreational facilities (for more structured physical activity). The second was as daily destinations that could be reached using walking or cycling rather than by private or public transport.

Table 8.1 Summary from Study 3 about aspects of locating in space that made it easier to build moderate physical activity into the day

People recognised the positive attributes of their areas and discussed how these could contribute to them taking exercise when going to work or to school, going shopping, or as part of the day's activities. Positive attributes include:	
Purpose	• Being close to an open space, such as the beach, or a large park, especially when combined with being close to town. • Facilities such as parks, shops, recreation facilities, and schools. • Tree-shaded streets and footpaths. • Convenience of facilities and services, which is particularly important for older people, or for those who do not regularly use a car. • Access to medical services, which is important to people as they grow older.
Enablers	• The use of school ovals, both for organised sport and for less structured activities like taking the dog for a walk. • The attractiveness of their area; trees, wide grassy verges, and local parks. • Low traffic in suburban streets, for example, cul-de-sacs are seen to reduce traffic flow through an area.

Adapted from Wright, MacDougall, Atkinson & Booth (1996) pp. 10-12

Participants described *convenience* and *aesthetics* in the following terms:

- *convenience* referred to a range of basic services to which participants could walk or combine walking with public transport (eg shops, services, parks, school ovals, community facilities and venues that were well maintained for accessibility and aesthetic reasons);
- where necessary, special design features to enhance accessibility were valued. For many participants, convenience and relevance changed over time in response to their judgements about what they, and other groups in their community, may need in different ages and stages of life.

[36] Tables 8.1 to 8.6 combine data from all focus groups, and field studies in Studies 2 and 3.

Table 8.2 summarises the aspects of locating in space that made it more difficult for participants to incorporate physical activity into the day. Participants recognised one consequence of extensive car ownership is that frequently used facilities (such as shopping centres) can be concentrated with increased distances between them. Allied to this is the tendency for governments to rationalise services (for example placing post boxes further apart) and to locate services in major shopping centres. Any of the aspects summarised in Table 8.2 can be categorised as difficulties; for example increased distance between shops, lack of ramps and car-parking and access to child care. Others are more akin to risks; such as needles on a beach, vandalised parks, an underpass to a park that is perceived as unsafe.

Table 8.2 Summary from Study 3 about aspects of locating in space that made it more difficult to build moderate physical activity into the day

Difficulties	• The commuter lifestyle and the preference for large suburban blocks has prevented dense urbanisation and resulted in increasing reliance on the car. • Decreasing proximity to and accessibility of local parks and green areas means they are used less and less. • Poor access to flat play areas for children means that children have limited space to play. • Decreasing numbers of local shopping facilities in favour of larger shopping centres has meant increasing the distance between them. • Because of the distance to the shops, people need to take their cars rather than walk, whereas others without cars need to make alternative arrangements involving public transport, home deliveries, taxis, or family and friends. Some people drive rather than walk because they need the car for carrying the groceries. • It is important to maintain a wide range of facilities and shops within walking distance of people's homes. • There are problems getting around large shopping centres because of their size and inadequate ramps and poor access. • Lack of nearby parking or parking for people with mobility problems makes access to shops a problem for some people. • Parents wanting to exercise need access to childcare. • Mothers with prams and people with mobility problems find navigating narrow aisles in shops a problem. • Decreasing number of facilities such as post and telephone boxes results in people having to drive to use such facilities rather than walk. • There is a need for improved exercise facilities for people with special needs (e.g. cardiac rehabilitation patients and parents with young children).
Risks	• Vandalised parks are not a pleasant place to be. • The beach is dark at night in winter and needles are a hazard to walkers. • Increased traffic means that it is no longer safe for children to play on the street. • A sports centre is on the other side of the highway from the local school. There is an underpass beneath the highway, but it is dark, covered in graffiti, and full of broken glass. People do not feel that it is safe for children to go there by themselves.

Adapted from Wright, MacDougall, Atkinson & Booth (1996) p. 17

Moving through space

When they use facilities, infrastructure and services, participants in the studies move through spaces around and between locations. *Moving through space* refers to the way participants in the studies move around either their immediate environment or geographic community and between locations or communities of interest. This chapter shows how the environment and transport systems influenced decisions about incorporating physical activity into movements between locations.

Moving through space, like *locating in space* does not just refer to the present. There are two aspects to the time dimension:

- participants' assessments of their current ability to move through space and how that may change given their age, stage and particular needs;
- their perceptions of the way moving through space has changed since they were younger and how it might change as time goes by.

From Study 3 I noted the themes of the built environment, transport systems and sharing the roads. Participants were explicit about how the dominant influence of cars made it difficult for people, especially those with mobility problems, to choose to walk or cycle for work, child care, shopping or leisure. Community facilities could therefore be rendered inaccessible by virtue of the main roads, traffic lights, public transport service or footpaths that connect them with people.

Table 8.3 summarises the aspects of locating in space that made it easier to incorporate physical activity into the day. Again, there was evidence of the importance of a purpose for physical activity, in this case reflected by the recognition of the role of transport systems in helping participants to move through space. Many of the points in the table refer to reducing difficulties with public transport, such as the problems participants with arthritis experienced when trying to climb aboard a bus. Others, such as timetables and routes, added to convenience. Mobile libraries, seats to use to rest along the way and government allowances that recognised the extra cost of dealing with mobility problems were also mentioned.

Table 8.3 Summary from Study 3 about aspects of moving through space that made it easier to build moderate physical activity into the day

Good points which allow and encourage people to move about the community include:	
Purpose for physical activity	• Access to shops and other facilities. • Public transport which allows people to combine its use with exercise. • Convenient public transport in terms of timetabling.
Reducing specific difficulties with and/or adding to convenience of public transport	• Public transport which enables people to be independent. • The lack of stress when using public transport (in comparison with car travel). • Access buses which stop for longer than other buses to let people get on or off and whose drivers help people with mobility problems. • MI and M2 Access Buses (these are special buses with a convenient route for local residents). • Marion Shopping Centre has a courtesy bus which helps people with mobility problems to get around the shopping complex.
General points about mobility	• The Marion Council Mobile Library which helps people to access library services. • Seats as resting places at bus stops or on regularly frequented pedestrian routes and in parks. • The mobility allowance which assists people to get out and about. (In 1996 the mobility allowance of $25.50 a week was paid by the Commonwealth Department of Social Security to people who do 8 hours of paid or unpaid work per week and who are unable to catch public transport.)

Adapted from Wright, MacDougall, Atkinson & Booth (1996) p. 12

Table 8.4 summarises the aspects of moving through space that made it more difficult to incorporate physical activity into the day. Although this is a very long table, I have checked the tapes and transcripts and judged that the length accurately reflects discussions that were lengthy, covered diverse topics and which involved intensity of feeling.

Table 8.4 Summary from Study 3 about aspects of moving through space that made it more difficult to build moderate physical activity into the day

Difficulties	
Walking and cycling	• Crossings are not always located where most people would choose to cross. • There are not enough crossings. Zebra crossings were suggested as a solution. • Pollution and noise from traffic make cycling and walking unpleasant on busy roads. • Parked cars take up space on the road which could otherwise be dedicated to a bicycle path.
Public transport	• Trains do not always have enough space for bicycles in busy times. • Bus schedules and timetables are not displayed at bus stops. People are often unsure of the destination of the bus, and unclear on when the bus comes or how frequently it stops. • Buses run infrequently in the evening and on weekends. • Some bus routes are inconvenient and do not link well with people's daily needs. • Trams were criticised as a very inconvenient and uncomfortable method of transport, because of frequent breakdowns and delays. • The high cost of public transport can limit people using it. • People with mobility problems have some difficulty using public transport because of problems: – Getting to the bus stop. – Waiting at bus stops with uncomfortable or difficult to get out of seats. – Getting up and down bus steps. – Getting onto the new lower buses if they park more than 15 cm from the kerb. – Getting a seat, or getting a seat near the front. – Feeling that there is a lack of public appreciation of their needs • Buses need to be easily accessed by all. Hydraulic steps were recommended. • Bus drivers need to have the attitude, skills, and knowledge to enable all people easy access (i.e. they must be aware of the needs of people with mobility problems and pull up close to the kerb). • More community bus services are needed.

Table 8.4 continued

Risks	
Walking and cycling	• Bushy nature strips and solid bus shelters block car drivers' views of pedestrians, cyclists, and other traffic. • Tree roots and fallen berries of certain types of trees cause problems on footpaths or bicycle paths; injuries can result because of tripping on uneven paths and slipping on foliage, nuts, or berries. • Trees need to be planted, but must be maintained and watered so that tree roots do not protrude through the pavement. The type of tree planted should be chosen carefully to avoid berry-dropping varieties. • Poorly maintained paths can be particularly easy to trip on at night if they are not well lit. Footpaths need to be safe and evenly paved. • Some paths come to an end and continue on the other side of the road at points where it is not safe to cross. • Many kerbs lack ramps for people who have problems mounting the kerb. • Shaded seats are needed along paths. • People want well-maintained walking routes along designated streets. • Motorists are not always considerate of pedestrians. • Roads are designed for traffic and not for pedestrians. • Motor vehicle driver education about the rights of cyclists and pedestrians is needed. • Cul-de-sacs can result in high volumes of traffic on the feeder roads. • Highways are difficult, time-consuming, and dangerous for pedestrians to cross. • The speed of the traffic near schools presents a threat to children's safety when they are walking to and from school. • When pedestrian crossings are provided, the lights are rarely green long enough for older people to cross confidently. • Pedestrians face problems when they are walking along the footpath because drivers entering the road from driveways are not necessarily on the lookout for, or able to see, pedestrians.

Table 8.4 continued

Cycling	• People are unsure of road rules relating to cyclists (such as whether or not cyclists are allowed to ride two abreast, and whether or not cyclists have to give way to cars). • Some drivers harass cyclists. • Cyclists find negotiating parked cars on busy or narrow roads perilous. • Cycling at night is dangerous, because of poor visibility, especially during winter because it gets dark early. • Crossing lights are needed where bicycle paths intersect with major roads.
Public transport	• The train station is a threatening place to be alone, especially at night. It is regarded as unsafe for children to be there alone. • Graffiti was mentioned as contributing to a feeling of insecurity

Adapted from Wright, MacDougall, Atkinson & Booth (1996) pp. 23-25

Difficulties in walking and cycling included the design of pedestrian and cyclist crossings, pollution and noise and parked cars impeding the paths of bicycles. Difficulties with public transport included timetables, routes, space, reliability, cost, design and driver behaviour and there were some risks associated with personal safety. Many of these difficulties and risks fall within the transport policy portfolios.

Some risks associated with walking related to footpaths which were not continuous and were uneven either due to poor maintenance or the damage from trees and shrubs that were inappropriately chosen or maintained. These risks are mainly within the policy domain of local government.

Risks associated with walking and cycling were numerous and most were associated with the dominance of the private motor vehicle and motorist. This dominance was expressed in reports of risks associated with the way the design of suburbs and road systems favoured cars over pedestrians and cyclists. Pedestrians and cyclists reported that they were at risk because of the dominance of cars. These are not simple policy questions, rather they go to the heart of our society's beliefs about private transport and economic progress, personal independence and cultural values.

Relating to people in space

As the participants were locating in and moving through space, they were relating to people. Therefore, *relating to people in space* refers to the way participants relate to each other in their immediate environment, in families and social networks, in locations and as they move between locations. Therefore, an important part of the presentation of results is an analysis

of how, for example, supportive social relationships and concerns about safety influence decisions about incorporating physical activity into movements between locations.

As in *locating in space* and *moving through space,* there are two aspects to the time dimension:

- assessments by participants of their current needs and ability to relate to people in space and how that may change given their age, stage and health/mobility status;
- perceptions of the way relating to people has changed since they were younger and how it might change as time goes by.

When participants were describing their locations, movements and relationships in space, they frequently referred to what I have labelled as difficulties, risks, purposes and benefits that are associated with physical activity.

From Study 3, we identified the theme of community spirit, which contributed a collective and social dimension of physical activity. In addition to individuals benefiting from reduced risk factors or improved feelings of well being, exercise kept people in touch with their communities and provided less tangible benefits such as enjoying the aesthetics of an area. Participants noticed the connections between disappearing green space, schools and post boxes and community spirit and connectedness and were willing to applaud, support or participate in action to preserve those facilities in their local community.

Table 8.5 summarises the aspects of relating in space that participants in Study 3 reported. Some points mention physical activity directly, for example people walking contributing to community spirit. Some points recommend making it easier to incorporate physical activity into the day. Others were more general, such as a sense of community contributing to a feeling of security. This table illustrates both the complexity and the elusiveness of some of the concepts in the debate about safety and community spirit; a debate that in contemporary Australian public health is occurring around the issue of social capital, as discussed later in this chapter.

Table 8.5 Summary from Study 3 about aspects of relating to people in space that made it easier to build moderate physical activity into the day

Social connectedness and relationships are an important part of feeling secure and safe, and giving a sense of community, all of which enable people to get out and about and exercise.
• Local shops can provide a social focus and meeting place. • People out walking contribute to a feeling of community spirit. • Being out and about makes people aware of what is happening in their area. • A sense of community contributes to a feeling of security. • Schools provide a community focus or meeting place. • A mix of ages is an important aspect of a community. • Community action can achieve improvements in local resources and facilities, and can prevent the loss of valuable community assets. • Working together on community projects engenders a sense of community and can get results.

Adapted from Wright, MacDougall, Atkinson & Booth (1996) p. 13

Table 8.6 summarises the aspects of locating in space that made it more difficult to incorporate physical activity into the day. Again this is a long table and I judged that it reflects the time and intensity of the discussion. Some of the difficulties reported by participants related to such things as children being driven everywhere and vandalism. A common theme, however, are reports that there are fewer people on the streets, reducing the sense of community. Many of these difficulties are easily transformed in participants' minds from difficulties to risks, especially for women, children and older people. Recommendations include, again, group walks to foster security and make it apparent that there are more people on the streets. Other recommendations are for more parks, preservation of community facilities and urban design policies that do not remove open or community space. To achieve these aims, community action is recommended.

Table 8.6 Summary from Study 3 about aspects of relating to people in space that made it more difficult to build moderate physical activity into the day

Difficulties	• Children are now driven everywhere rather than walking or catching public transport. • Vandalism of community parks makes these areas less appealing. • People would once have known everyone in their area, but that is no longer the case, which makes being out on the streets less appealing. • Loss of personal relationships in the community is caused by changes in lifestyle and because people are spending less time at home than they once did. • People are less likely to walk in the winter months because it gets darker earlier. • Ensure play areas are less isolated by encouraging more people to use them.
Risks	• Now that many people work, there are few people around when children are walking to and from school. Parents are concerned about safety. • Closure of local schools makes it necessary for children to travel further to school and use public transport, which is perceived to be unsafe. • Unfrequented parks are seen as a problem. Parents do not feel that their children are safe at the local park if there are no people around. • It is not considered safe to let children walk alone in the evening because of poorly lit streets. • People, particularly women and older people, feel unsafe walking alone for fear of attack. Factors contributing to insecurity include poor lighting, dense foliage near walkways, vandalism, and groups of young people hanging around. • Isolation contributes to people's feelings of insecurity. Areas that are unfrequented are regarded as unsafe, especially at night.
Recommend-ations	• Ensure paths (walkways and bicycle paths) are safe by seeing that they are: – Well lit. – Planted with trees for shade, but not too much low cover that could provide refuge for an attacker. – Have well-maintained surfaces.

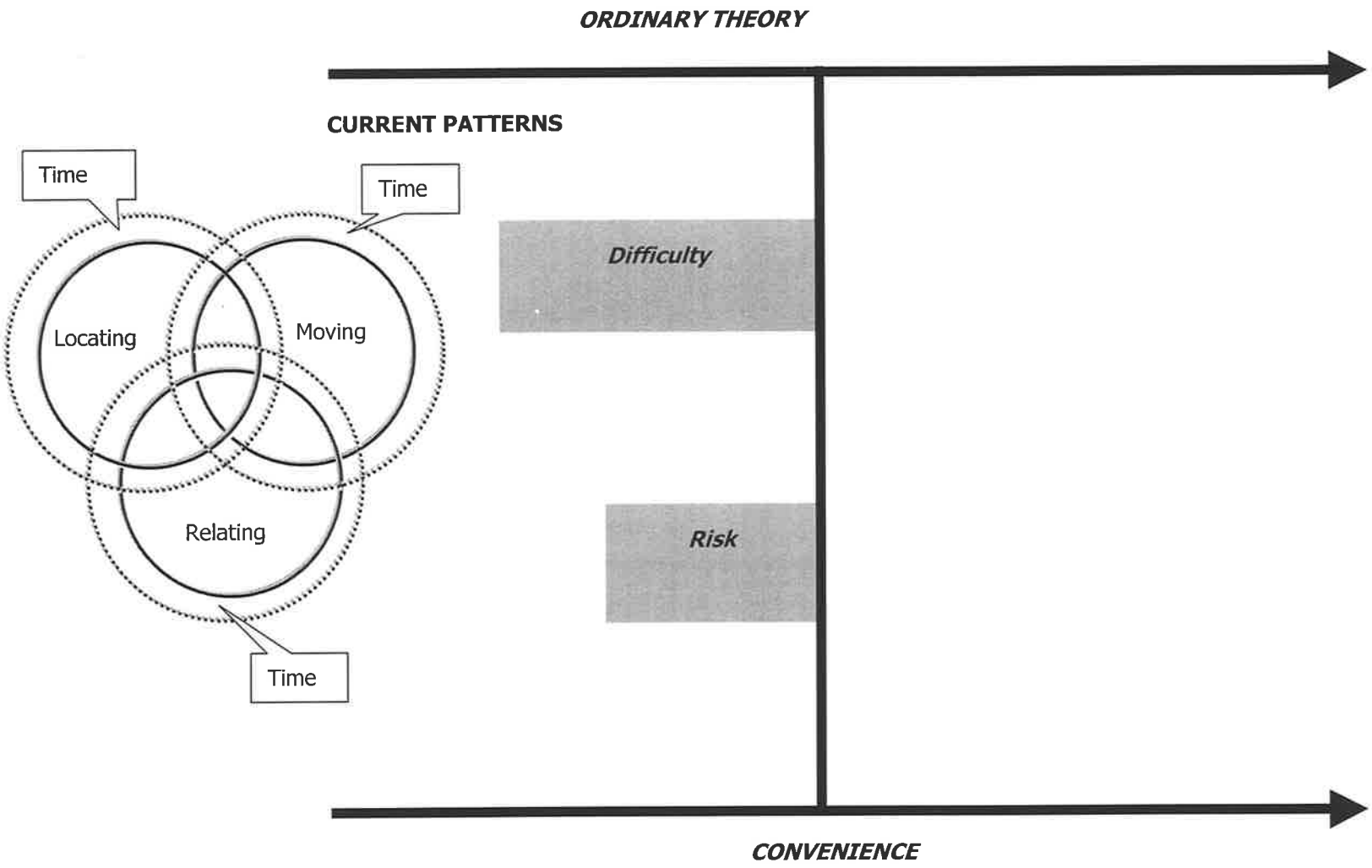
Adapted from Wright, MacDougall, Atkinson & Booth (1996) p. 29

Step 2: Explain current difficulties with physical activity

In this step I examine the case study and use the themes of locating, moving through and relating to people in space to explain some of the current difficulties that settings pose to participants when they are choosing how to incorporate physical activity into their day.

In Figure 8.1, a Venn diagram at the top left portrays the explanation of current difficulties. The size of each circle represents my analysis of the importance of that element in explaining current difficulties. The relative position of each circle reflects the relationship between the elements; in the example in Figure 8.1 they intersect because factors in each element are related and explain physical activity. If the analysis, for example, suggested that two elements (say locating and relating to people in space) were supportive but one (say moving through space) was not supportive, then the relating to people circle would be larger and separate from the other two. I have added a third dimension to a circle if the analysis suggests time is important, in the sense of participants theorising that there have been, or will be, crucial changes in factors relating to physical activity over lifecourses and generations. Forces that inhibit moderate activity, *risk* and *difficulty*, are included as barriers.

Figure 8.1 Hypothetical analysis of current difficulties with physical activity



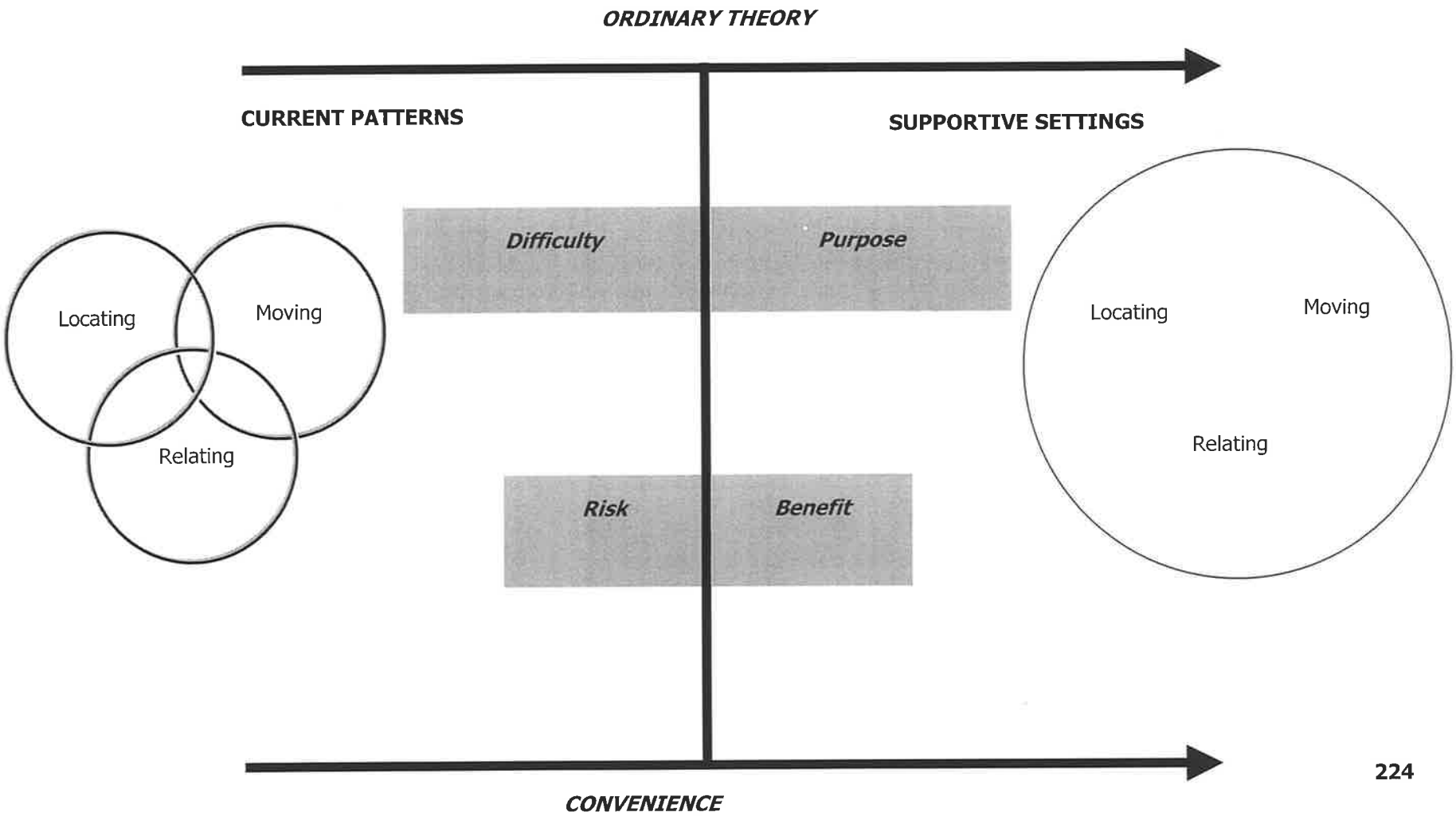
Step 3: Explore options for supportive environments for physical activity

In this step I commence a force field analysis to propose a vision and to explore what social and environmental changes might make it easier to build moderate physical activity into their day. Force-field analyses are frequently used when planning or managing personal and organisational change, and derive from the *force-field theory* of Kurt Lewin which argues that outcomes are the result of equilibrium between driving and restraining forces. Driving forces push one way, restraining forces the other so that an increase in driving forces may increase change, but may also provoke restraining forces. Lewin conceptualised change as involving *unfreezing, changing* and *refreezing* (Stoner, Yetton, Craig & Johnston 1994). *Unfreezing* involves using the left-hand side of my diagrams to understand current patterns and make a case for change. *Changing* involves the movement to the right hand side by developing new approaches and structures, taking into account driving and restraining forces on the diagram. Refreezing involves establishing new arrangements, structures and partnerships depicted on the right hand side, involving a vision of what might be, as used in the development of visions for healthy settings (Baum 1998).

The force field analysis starts from the explanation of current difficulties in Step 2 and envisages settings that would be more supportive of moderate physical activity. Forces that support physical activity, *purpose* and *benefit,* are enhancers which may involve change in one or more of locating, moving through or locating in space. There may be multiple options, so in this step it is possible to present alternatives.

As shown in Figure 8.2, at the top and bottom of the force field analysis there are two general forces for and against the promotion of physical activity. At the top, there is a general force which I have labelled *image* of physical activity, which acknowledges the general discussion of ordinary theory in Chapter Seven and proposes the most appropriate imagery about physical activity. This force reflects the new public health principle of respecting ordinary theory in order to promote peoples' participation in debates about health services and policy. At the bottom, there is another general force that I have labelled *convenience of settings* which reflects the principle of analysing settings to make the healthy choice the easy choice.

Figure 8.2 Hypothetical force-field analysis of supportive settings



In Figure 8.2, the change process is portrayed by the move from left to right towards a new Venn diagram that supports the choice to increase moderate physical activity. Again, the size of each circle represents my analysis of the importance of that element and the relative position of each circle reflects the relationship between the elements. In Figure 8.2 the three circles become one to represent a *communitarian* future whereby each element of the setting blends with the other to support physical activity. If the vision is to enhance transport systems, the moving through space circle is larger and separate from the other two. Again there is a third dimension to a circle if the analysis suggests time is important.

Step 4: Identify policy actor networks and agendas

In order to create the changes from current to future settings it is necessary to influence the agendas of what Considine describes as policy actor networks [37](Considine 1994). For each example, I hypothesise about the implications for the composition of, and connections between policy actor networks that support the current settings, compared with those which may create new settings. I have looked for networks of policy actors whose influence is predominantly within each of the three elements (locating, moving and relating to people in space) and for networks that link one or more of the elements as required to promote policy change. When exploring policy networks and agendas, I am mindful that my purpose is not to write policy or analyse how actual policies are created. [38]

Case study A: Convenience and aesthetics: locating in local spaces

Explanation of current difficulties with physical activity

This case study assembles a number of responses to the open-ended discussion starter, which was used at the start of focus groups, *What are the good things about your area?* Many participants mentioned a range of facilities without making formal distinctions between those for recreation, leisure, and shopping or essential services. The Italian Church group, St Maria Goretti, exemplified a common emphasis on aesthetics when they said they wanted the council to repair footpaths and road surfaces not for functional reasons (they said they did not wish to walk on the footpaths), but for aesthetic reasons. The following dialogue, from

---

[37] I define and discuss actor networks later in the chapter in the section on *Mixed scanning for healthy public policy*

[38] In Chapter Three I defined the task as *analysis for policy*, which is an activity concerned with contributing to the solution of social problems (Gordon, Lewis & Young 1977) by following what Hogwood & Gunn (1984) describe as seeking to increase knowledge for the policy process.

the church-based social group, is representative of many and illustrates participants' concerns about range, convenience, greenery and general aesthetic factors.

> *Speaker 1 ... (the retirement village) ... is a nice spot, and there is the original homestead ... (and) ... 80 ... townhouses ... comprise of people that aren't in the retirement village and I just love it because ... it is around this lovely greened area with a gazebo and rockery and it is close to everything in Marion, Marion Shopping Centre and the Leisure Centre and Parkholme ... (shopping centre).*
>
> *Speaker 2 ... it is a beautiful place and I do lots of walking around the conservation park and along the beach, it is beautiful for that.*
>
> *Speaker 3 ... The place is very convenient, most of the houses have been there about 40 years ... the gardens and everything ... are well established, there is a small shopping centre a few minutes up the road, the railway station is about 1/4 hour walk away and I can be down on the beach in about 15 minutes good walk.*
>
> *Speaker 4 ... I live ... west of Brighton so I find it very convenient to the beach ... 11 houses down ... we've got the Brighton Railway station about 200 yards away.*
>
> *Speaker 5 ... There is a bus service in 2 different directions and Flinders Hospital is not that far off and I can ... (walk to) ... Marion Shopping Centre ... in about 25 minutes ... it is quite a convenient spot to live in ... we maintain its the best spot we have ever lived in for convenience. (Prime Timers Group)*

The group agreed when one participant distinguished between *core* or *basic* services that should be close and those, which could be further away.

> *If you don't want to live in a motor car then you need to be somewhere where the services are, you need to be close, or reasonably close to a doctor's surgery, you need to be reasonably close to a Post Office and a food store. I think possibly they are the three basics but if they are 10 miles down the road then you come to an age where you don't want to be sitting in a car all the time driving to them. (Prime Timers Group)*

Within the there were different views on whether to tailor life to local facilities or to move around to find the most optimal facilities.

Speaker 1 - There is usually something close to where you live, I mean, I guess you can find a club the other side of Adelaide or you can find the local dog club, you just tailor your life to your surroundings, but having experienced the opposite, I think there is nothing like having good neighbours.

Speaker 2 - you were saying local facilities, well we all go from various areas to go to the one church so we wouldn't actually say it is a local church, just as you were saying some people go to all parts of Adelaide to go to clubs, well we are in a similar situation, that is what we do. (Prime Timers Group)

In this example, Speaker 1 thought that proximity was an important consideration when deciding to use general facilities such as clubs and dog clubs. Speaker 2 did not rank proximity highly, referring instead to a type of church that people travelled from all areas to attend. This illustrates the difficulties that would be encountered by moving straight to a proposition that merely distributing facilities so that they are convenient would automatically lead to an increase in physical activity. There is more to decisions about facilities than proximity, a point I return to in the later case study about values and friendliness of facilities.

Participants frequently referred to the *time dimension* of *locating in space* and argued that facilities should be relevant to peoples' needs as they differ according to age and family structure. Some either moved to an area because of particular facilities or thought about moving to another area that may suit their future needs. Frequently mentioned facilities were schools, shops, hospitals and recreational complexes.

Some considered changes over time for the sake of children:

Speaker 1 ... they are just starting to put some more things in the park for the children, which will be great for families ... and I think there is going to be a barbeque ... which will be very nice for the majority of people. (Trott Park Literacy Group)

Speaker 2 My grandchildren like to go to swimming or have some fun ... we haven't any recreational centre ... (Trott Park Literacy Group)

Others moved for the sake of children:

We moved down ... (to here) ... when our children went to Brighton High doing special music so we found it very convenient. (Prime Timers Group)

One family moved to make it easier to take part in recreation involving physical activity, while others moved to anticipate the changed needs that came with aging:

Speaker 1 ... we moved to Flagstaff Hill about 14 years ago, mainly because ... (my wife) ... was keen on golf at the time and didn't drive a car so we bought a house right on the golf course and we love the area because it is rural and we've got the golf course at our back door.

Speaker 2 ... We are thinking that when I do eventually retire it would be quite ideal here, close to shops ... transport, you've got a ... beach there that you can walk along and you are not far from Flinders Medical Centre and all the other services.

Speaker 3 ... if the services weren't there then we probably wouldn't have probably moved there. I don't plan to move every 5 years therefore I want something long term and I was looking at something with services. So you have to make a judgement that if you are not going to move when your circumstances change, you have got to be somewhere where you can be sure, for the long haul, there is going to be things there for you. (Prime Timers Group)

In the Prime Timers Group there was a discussion stimulated by the observation that the postman (sic) used to ride a bicycle to deliver the mail, but now rides a motorcycle. One person pointed out that, when transport was often by bicycle or bus, hilly areas were not preferred areas for building houses if there were flatter sites available. Further, the roads in some hilly suburbs made it difficult for buses to travel. This example demonstrates the implications from the reflections of older participants that the mere assumption that there will be widespread use of the private motor vehicle has led to housing developments in areas that once may not have been selected because of their topography. The example also demonstrates the link between locating and moving around in space.

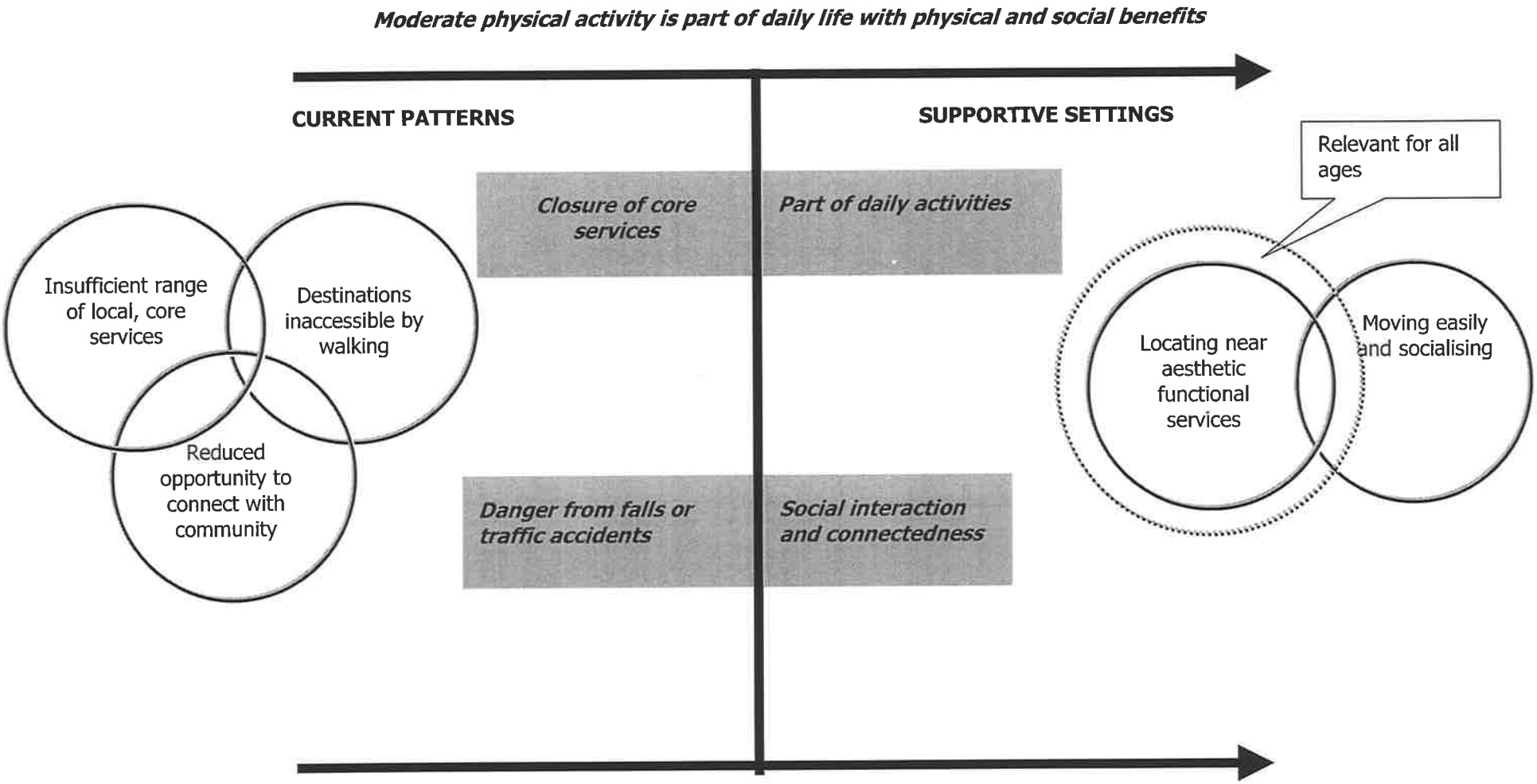
Developing options for supportive settings

The left hand side of the force field analysis in Figure 8.4 describes some ways in which settings make it more difficult to choose to engage in moderate physical activity. It features a large *locating circle* with a *time* dimension which reflects the importance of difficulties faced when people are not located near local facilities and services which are aesthetic, functional and accessible destinations involving, as a valued by-product, moderate physical activity. The time dimension of the locating circle acknowledges difficulties when facilities and services do not remain relevant and appropriate throughout the lifecourse. I have joined the circles denoting *moving* and *relating* elements of space to the *locating* element to reflect how difficult it is for participants to move between destinations if footpaths are poorly designed or maintained, public transport is inaccessible and motor vehicles dominate the road. *Relating* to people involves daily activities such as shopping, education and childcare as well as

socialising with local people, including neighbours. Difficulties are encountered as core or basic services are closed, rationalised, or do not provide for the changing needs over the lifecourse. Risks are associated with accessibility via footpaths and the design of facilities and potential accidents involving motor vehicles.

My goal is to propose settings with destinations that are convenient for many basic daily activities and services. People are more likely to incorporate moderate physical activity into their travel as they move between destinations. Figure 8.3 shows that one option to describe supportive settings is one large circle of combining the three elements of locating, moving through and relating in space. It is important to note that this option does not deal with all services, only basic or core services that people would be expected to use every day. This is not an easy definition, because services which are core for some are not for others, so there would have to be extensive debate about what constitutes core services and facilities.

Figure 8.3 Locating in local spaces



In the force field analysis shown in Figure 8.3 it is important to reduce the impact of barriers, which are predominantly in the form of difficulties. These difficulties relate to disappearing destinations or destinations that are no longer relevant for a person's age and stage. Difficulties shade to risks for particular groups in relation to access to facilities. The enhancers in the force field analysis are in some ways the opposite of the difficulties. For example it is important to promote the purpose of physical activity as being associated with travel to daily destinations, in which physical activity is a by-product. Naturally, for this to happen, destinations must be seen to be aesthetic and appropriate. The other enhancer, the benefits, relates primarily to social support, enjoying the aesthetics of a community and a general feeling of connection with one's local community. The goal is to increase the convenience of daily destinations and to present an image of physical activity as being moderate and with its meaning being associated with participating in daily life.

On the top of the force field analysis, I recommend that an appropriate image of physical activity is that of cumulative, moderate activities such as walking, associated with commuting in relation to daily activities of living. On the bottom, I recommend a theme of convenience and relevance of core services.

These recommendations are consistent with those of other Australian studies (Corti, Donovan & Holman 1996); that physical activity is easier in a community with well designed, accessible facilities to suit peoples' diverse needs. While this general statement is hardly surprising, it is instructive to look more closely at what constitutes desirable characteristics of facilities. On a general level, our research confirms and elaborates on Corti et al's (1996) finding that aesthetics and greenery are important considerations when people are deciding whether or not to use facilities. Our discussion starter, asking what was good about their area, was similar to what Corti et al defined as *top of mind* associations and confirmed the appeal of facilities that are conveniently located as an integral part of an attractive environment. The definition of a *facility* included not only recreation centres, but also beaches and amenities built up over the 40-year life of a suburb, including school ovals. While I cannot recommend a beach in every suburb or easily recreate decades of development in newer areas, I can point to the relevance of urban planning to environments that support physical activity.

The participants made a number of suggestions about who should take responsibility for initiating changes to the environment an frequently mentioned local government.

> *There was (a letter box) halfway along my street, and they removed it ... the elderly people ... really need (it. The council should) ... tell the post office to stick it back." (Arthritis Group 2)*

I think council areas should be forced to allocate a certain amount of area for open space, rather than just building on everything. They should have in place a policy that says 10% ... or whatever ... will be open space ... and resist the temptation to sell off their land and let small units go up, because (of problems that may arise) in twenty years' time. (National Heart Foundation)

one side of the street is grassed for a footpath and the other side of the street has got a strip ... it is just ridiculous that they don't have proper paved paths in all of the streets. (Women with Babies)

... we could ask councils to nominate certain streets where the footpaths would be kept in reasonable condition ... to provide walking trails which were safe through urban areas ..." (GutBusters)

... If they want the elderly to use the buses it should be in the laws that they come to the kerb properly ... that really riles me". (Australian Retired Persons' Association 2: Field notes)

the reason a lot of things are unsafe is because no one uses the area, there is no people. You put people there and then I think that would be better. (Students)

Participants expressed willingness to be involved in action and decision making, acknowledging that this is not always easy in practice and it can be frustrating. Participants said they would initiate action over issues about which they were passionate, such as retaining parks and school grounds as community resources, and were willing to work to protect community areas, landscape parks, and link facilities that are already there. There were examples of action, such as:

That oval I was talking about at Glengowrie High School, I understand that was saved from being sold for housing by the local residents who made enough noise that they wanted it maintained. (GutBusters)

Case study B: Safe routes for children moving through local space

Explanation of current difficulties with physical activity

This case study discusses a specific example of the views frequently expressed in Studies 2 and 3 that public transport and the ability to walk or cycle was instrumental in assisting participants to move to facilities where they engaged in physical activity or social interaction.

Many participants noted that levels of physical activity associated with commuting decreased as private cars came to dominate transport. Many missed the benefits of commuting and noted the special difficulties faced by parents when considering whether it was safe for their children to walk or ride bikes when moving between settings. For example, in a focus group from Study 3 the following discussion took place:

> *Speaker 1 - just another thing with kids coming to school, even if there was a bike track there - oh no if the bike track was there or a path that was being well used that would be different, but if the children had to walk to school along the road that they have now, assuming that it was fairly safe to walk along that road by themself, there is no-one home these days ... When I used to walk to school you could be sure that there would be some - maybe not every house but there would be a lot of people at home ...*
>
> *There would be the mums out watering the garden or there is someone out doing something. These days, you go down our street, and you've got probably a couple of retired families and I am probably the only mother that is actually home.*
>
> *Speaker 2 - I have got my children doing Little Athletics and a general grounding in sports.*
>
> *He is 8 now and last year he attempted a 500 metre run and he found that really difficult and this year he has done an 800 metre and he has found that really difficult ... Yet when I was a child you just seemed to have limitless energy and the only thing that I can think of is that his main entertainment is the T.V. because I don't feel safe with him on a skate board going down a steep hill in the street. He can't walk to school, he can't cycle to school because it is not safe. Apart from the actual exercise he is getting at school or when I take him somewhere to Little Athletics or swimming lessons, to cubs, to cricket, that is the only exercise he is getting is when I actually physically take him to get some exercise. I was really stunned that he had such difficulty completing that, and the only thing that I could put it down to is the fact that he doesn't get the regular, everyday exercise.*
>
> *Speaker 3 - I think it is only a problem because they don't really get the exercise as people have already talked about, just in their day to day action. The last couple of years of primary school, we walked to school, went walking out in the bush with friends on weekends and after school ... (general agreement)*

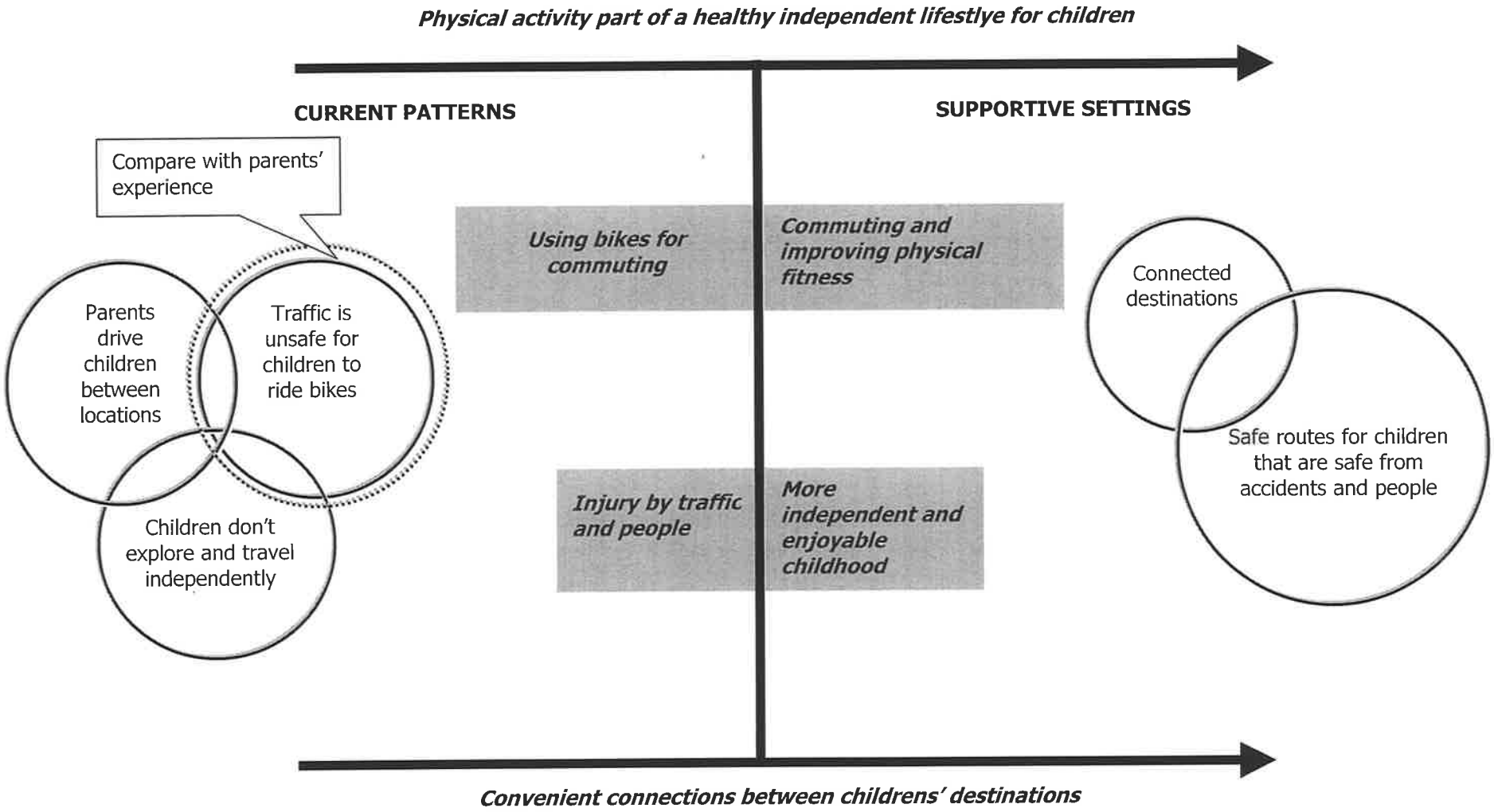
Speaker 4 - we have always lived around the gully and you walked all day. Mum would pack us a picnic lunch and off we would go and we would come back at dusk. I wouldn't let my kids leave my yard where I can't see them, I'm not game these days, there are too many weirdoes out there. (Hallett Cove South Primary School Focus Group)

The explanation in Figure 8.4 features a large *moving through space* circle intersecting with a large *relating to people* circle with a *time* dimension, both intersecting with a *locating* circle. The analysis points to the importance of local facilities and services as destinations involving moderate physical activity; but the critical element is the way the environment makes it easy or difficult to move through space. In this case there are two meanings to the term environment: natural and built. In relation to the natural environment, the suburb was built in a very hilly area, so some routes between destinations may well be inappropriate because they are too difficult to use. In relation to the built environment, some of the difficulties and risks arise from physical aspects of roads, footpaths and bike-paths. Others involved safety, expressed in terms of accidents and assaults, which involve how people relate to each other as they move through space. In this case the locating in space circle is relatively small and does not intersect substantially with the other two circles because the issue here is not the lack of daily destinations, but problems of moving between those destinations by young people in a way that involves safe moderate physical activity. The time dimension to the moving though space is significant because parents compared the difficulties their children had with moving around with the comparative mobility of their own childhoods. This focus group was part of the study led by the National Heart Foundation with me, an urban planner from University of South Australia and the local government of Marion, which includes Hallett Cove. We sent our summary of the focus group to the participants. Representatives from the focus group contacted us and we agreed to return and speak to them about an idea they were developing for a bike track. When we (Rick Atkinson from University of South Australia and I) met with them they found they had prepared a map proposing a bike track which linked common destinations such as schools, parks public transport and shops. The aim was to make it easier for children, adults and families to walk or cycle not for leisure, but for commuting. Rick Atkinson used a video camera to film the current hazards associated with hilly terrain, narrow roads and footpaths and footpaths which ended abruptly. Subsequently, Cheryl Wright from the National Heart Foundation led presentations to the staff and elected members of the City of Marion including the bike track proposal. Over the next few years, the members of the focus group submitted formal proposals to the City of Marion and we as the Project Team kept talking to Marion about the proposal. The proposal was subsequently formally included in the City of Marion's work plans.

Options for supportive settings

In this case study, there frequently existed destinations which were appropriate and attractive for people to use. The main issue here, however, is to make it easier and more convenient for people to travel between destinations in a way that involves moderate physical activity. It is for this reason that Figure 8.4 shows a supportive setting being described by one combined, large, *moving through space and relating to people* circle. It is not just a question of designing the environment so people can travel conveniently while avoiding accident or injury. The relating to people circle is joined with the moving through space circle because it is important that people feel safe from attack by strangers. Part of this feeling of safety can be achieved by the selection and design of transport routes so that there are more people watching and using them and that avoid hazards such as isolated and dark public transport stops, paths which are obscured with plants and paths which take people through dark or isolated places. Naturally there is a link with locating in space, but in this case study the principal concern is to make existing destinations more accessible.

Figure 8.4 Children moving through local spaces



In the force field analysis the barriers included difficulties that relate to the natural and built environment and risk expressed in terms of problems with children being safe from accident and assaults. The goal is to improve convenience of commuting between daily destinations, not only for children but also for parents. If children are able to commute safely between daily destinations then parents will have more free time. The enhancers included the purpose of physical activity being associated with commuting as part of life, which provides benefits including children who are fitter, more independent and who live in a safe, trusting community. The image that is suggested by this analysis is of physical activity as natural and beneficial for children because, just as in people's memories of their own childhood, children can have the independence to explore the environment either by walking or cycling.

A number of focus groups recommended that there could be designated walking or bicycle paths. These paths would be well maintained physically, would connect destinations and could become the basis of health promotion programs encouraging people to cycle or walk in groups and in larger numbers. With reference to the specific example of the bicycle paths for the children of Hallett Cove school, one important element to note is the topography and urban design. In this case, the suburb was very hilly and comprised a number of clusters of housing, frequently built around cul-de-sacs. Access between clusters of houses was by connecting roads, which often did not have good footpaths, were bordered by rear fences of houses or by vacant land and were characterised by traffic moving at relatively high speed. These elements combined to make walking unattractive. In some areas there once was access between clusters of houses via walkways from the end of one cul-de-sac to connect with another area. However, often these had been closed after complaints from the community following about safety.

In order to propose a supportive setting in this case, it is necessary to take into account the topography, urban design and existing infrastructure. In the case of the proposed bike track, it built on existing corridors of land which could be used not only to connect destinations, but also to provide a flat enough surface to be convenient for walking and cycling. Here, analysis for policy can draw on a number examples and models from South Australia, New South Wales and Europe.

In South Australia, as discussed in Chapter Five, there are guidelines to assist local government to develop environments that support physical activity, including recommendations about cycle paths (Wright, Atkinson, Cox, Dunn & Ferguson 1999). In the west of New South Wales, a research project (Hahn & Craythorn 1994) was followed by a number of physical activity and environment initiatives, including three specifically directed to cycling (Hinrichsen & Craythorn 2000). One of these, the *Tracker Riley Cyclepath* in Dubbo, involved the construction of a pedestrian bridge to link two parts of Dubbo. As a result, use of the cycle path increased by 68% (Craythorn 1999).

In the United Kingdom, the *Safe Routes to Schools* project addresses many of the concerns raised in this case study. *Sustrans* (a charitable body which is a sustainable transport advocacy group) and four Local Authorities are conducting a national demonstration project to show how children can be encouraged to cycle and walk to school. This involves traffic-free routes, traffic calming, bicycle security, environmental education and awareness-building to create safe streets. The project, launched in 1995, was funded by the Environmental Action Fund of the Department of the Environment, charitable trusts and Sustrans' supporters.

The needs for, and benefits of, the project are highlighted by the following:

- twenty per cent of peak-hour car journeys now consist of school escort journeys. Every day 2 million children are driven to school;
- promoting cycling and walking does not necessarily mean a rise in the number of accidents. York has some of the highest levels of walking and cycling, yet has achieved significant reductions in accidents for all road users;
- in Odense, a Danish city with a population of more than 200,000, a Safe Routes to Schools program has led to an 85 per cent fall in child pedestrian and cyclist accidents - nearly two-thirds of children cycle to school;
- in Britain the number of seven and eight-year-olds allowed to travel to school independently fell from 80 per cent in 1971 to fewer than 10 per cent in 1990, largely as a result of increased traffic dangers.

The characteristics of safe routes to schools incorporate good physical design with measures to address concerns about the safety of children:

- routes should follow those currently used by the majority of pupils for their journey to school;
- routes are likely to consist of a combination of traffic-calmed roads and traffic-free sections;
- traffic calming is essential. Research by the Transport Research Laboratory shows that accidents involving children fall by an average of 67 per cent in 20mph zones;
- routes should be as wide as possible. Children like to travel in company and this produces a surge at the beginning and end of the school day. Measures which deter cars make routes safer and reduce the numbers of school escort trips;
- pupils' and parents' fears and perceptions of hazards must be considered as well as actual accident statistics;

- routes need to be continuous and direct. Children, like adults, don't like having to go the long way round;
- routes should be designed so secondary and older primary school children are happy to travel unaccompanied by adults (Sustrans 1999).

Sustrans provides written guidelines, newsletters and support with projects and claims the following policy successes in the United Kingdom:

- the government has supported Safe Routes to Schools schemes in the Transport White Paper, 1998: "We will work with local councils to make walking safer and to provide more cycle routes to schools;"
- most local authorities have included plans for Safe Routes to Schools initiatives in their Local Transport Plans, submitted to government in 1999. Grants have been awarded from central government for Safe Routes to Schools projects of up to £250,000.
- Safe Routes to Schools is recognised as a health promoting initiative in the Health White Paper Our Healthier Nation (Sustrans 2000).

In Britain, two current initiatives address the impact on physical activity of urban design and transport systems. The *Guardian* reported on Tuesday July 27, 1999 that teachers had, on the previous day, called for a quarter-mile car exclusion zone around schools which would ban parents from parking or dropping their children off at the gates in an attempt to end *grand prix* traffic chaos. "They learn very early to expect to be driven nearly everywhere, and become incapable of walking, biking or taking a bus," members of the 35,000-member union (were told) at its annual conference in Southport, Merseyside. "Children need the exercise of walking or biking to school, they need to learn to use roads without them being like a grand prix circuit at school time, and above all they need to learn the independence of getting about on their own."

The Times, on August 5 1999, reported how residents in nine areas throughout England are to be allowed to turn their streets into "outdoor living rooms", where pedestrians have priority over cars and children can play in safety. The Government gave its support to home zones in its Transport White Paper and an Urban Task Force recommended that residents be given the power to set up home zones in their neighbourhoods. The director of the Children's Play Council, said he hoped that the Government would act quickly to allow other communities to establish home zones. "The home zone is not simply a measure to improve road safety. "It is about creating a valued public space in the street, where even young children can play safely and where neighbours can meet and chat."

Case study C: Values and friendliness: relating in space

Description and explanation of current patterns of physical activity

Case study A led to an argument for core facilities and services that are local, relevant and accessible. The rationale is that people engage in moderate physical activity as they move around their local community and there is an assumption that most people would be attracted to use local facilities. However, I reported that within one focus group there were differing views on whether to tailor life to local facilities or to move around to find the most optimal facilities.[39]

It is therefore not surprising that more discussion of values surfaces in relation to social interaction and community groups. Many of the groups in this study formed to provide social support for their members while contributing to the community. The contribution of this support to increasing moderate physical activity was reflected by the arthritis group's provision of joint mobility and water exercise classes, recreation activities provided by Prime Timers, line dancing opportunities for the Friends of the Southern Hospice and, for all groups, opportunities for people with similar interests to meet. For the Prime Timers group the association with a church provided shared values. As one member put it:

> *... we believe there needs to be some credibility in our community, that it is not just a holy huddle, hence we have a community centre which seeks to serve ... in one of the most depressed areas ... with no strings attached.*
> *(Prime Timers Group)*

In the example above, the members joined the group because they saw that it suited the values that they associated with their religion. They could meet with like-minded people, serve a deprived community *with no strings attached* and, at the same time, join in physical activity. Providing opportunities for physical activity is not the raison d'être for this group. When thinking about initial policy implications, it is essential to note that the group does not

---

[39] In that case study I reported that one participant thought that proximity was an important consideration when deciding to use general facilities such as clubs and dog clubs. In contrast, another participant said:.

> *Speaker 2 - you were saying local facilities, well we all go from various areas to go to the one church so we wouldn't actually say it is a local church, just as you were saying some people go to all parts of Adelaide to go to clubs, well we are in a similar situation, that is what we do.*
> *(Prime Timers Group)*

identify as a physical activity group and would be unlikely to be among the first to participate in policies whose values and frameworks emphasise the link between physical activity and health. In another example, a participant in the Prime Timer's Focus Group told the story of a young family member who arrived from another State troubled by peer group pressure and drugs. After going to Church and playing tennis she was able to *get back to her roots* and succeed again at school. Members of the Italian Church social group had moved to the area in order to contribute to the life of their church. Members of the Marion Volunteers Group felt they were contributing to the community by sharing their skills. Again common themes are shared values and service to the community, with physical activity a subordinate purpose, or even by-product.

As well as assessing values, participants evaluated facilities according to friendliness and inclusiveness. Some reported difficulties with the friendliness and inclusiveness of people in clubs. Given these difficulties, it is easy to understand how the closest club may not be the most suitable club.

> *Speaker 2 ... they (senior citizens clubs) get very cliquey ... and they all have their little groups and the first time I went to (a senior citizen's club) ... no one spoke to me ... so I only just went for the keep fit classes.*
>
> *Speaker 1 When I had my hip done I couldn't get on the buses, so an old lady 90, befriended me and introduced me to her friends, otherwise I would have still been on the outer.*
>
> *Speaker 2 They don't have hostesses that would introduce you around.*
>
> *Speaker 3 You go to sit down and they say oh, my friend sits there.*
>
> *Speaker 4 It is very frustrating to really get into it.*
>
> *Speaker 5 ... you find this with all organisations ... because they have all got their own tables and they have all got their own chairs and you mustn't use that one, that one is theirs and you are sitting in my chair (all laughing) (Arthritis Group)*

The current difficulties do not concern the existence or accessibiltiy of facilities or community groups, as expressed by the small *locating* and *moving* circles on the left hand side of the force-field analysis in Figure 8.5. Rather, in these two cases the potential difficulties are described in the large, *relating*, circle. The first potential difficulty people face is a facility of group that does not respect, reflect or advance their values, such as a particular approach to religion and community service. The second difficulty occurs when people feel they are not welcome or welcomed. In each of these cases, because an aim of attending is to socialise, appropriate values and friendliness become at least as important as proximity and the provision of services or programs.

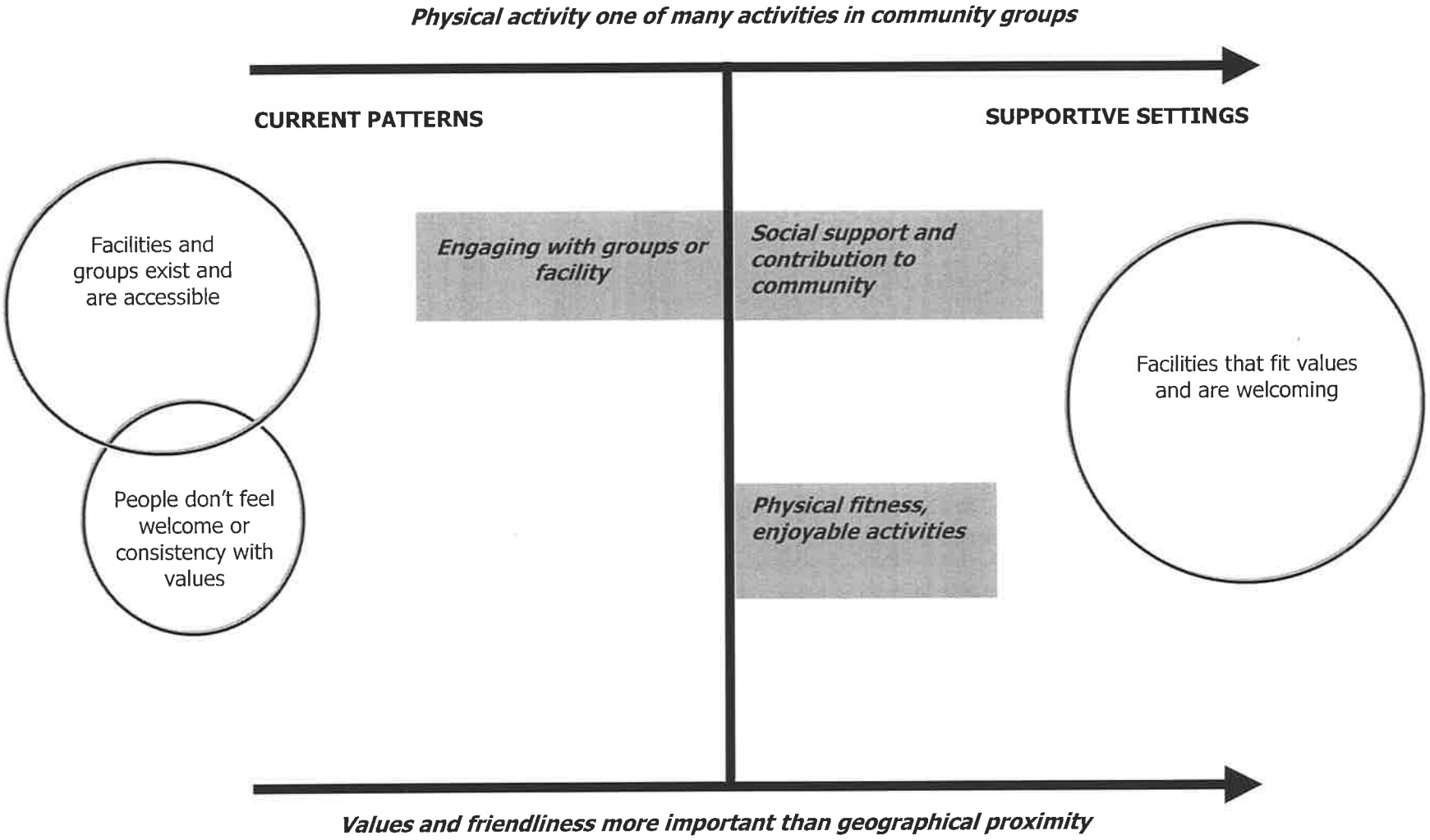
Options for supportive settings

The right hand side of the force field analysis in Figure 8.5 features a large circle emphasising values and friendliness. The purpose of attending the facility or group is primarily social, with physical activity being one of the strategies or activities conducted by the group. The benefits of physical activity are just part of a general benefit of physical fitness, enjoyable activities and social interaction.

My findings support other research findings that factors such as friendliness and acceptance supported the use of facilities (Corti, Donovan & Holman 1996) (Sallis & Owen 1999). The relationship between social structure and facilities is demonstrated by a study in Glasgow, Scotland, in which people in the less socially advantaged area were less likely to be members of clubs, associations and voluntary groups than those in the more advantaged area. Similarly, those in less advantaged areas were less likely to have neighbours with whom they exchanged small favours (MacIntyre & Ellaway 1999).

This vision for supportive facilities and groups can also be linked to the debate about social capital which, refers to ... features of social organisation, such as networks, norms and trust that facilitate coordination and co-operation for mutual benefit. *(Putnam 1993 p. 36)* One aspect of social capital refers to processes between people which establish networks, norms, social trust and lead to co-operation for mutual benefit (Cox 1995). In particular, social capital can refer to the factor that can allow for collective action in the social sphere and for the common good (Cox 1997).

Figure 8.5 Values and friendliness of facilities



Case study D: Unsafe streets: moving, relating and social capital

Explanation of current difficulties with physical activity

From Studies 2 and 3 it was apparent that, regarding relating to people in space, many of the difficulties were associated with acts such as vandalism which made public spaces feel less appealing and more threatening. This is related to a common theme that there were fewer people in streets and public spaces these days, and that participants were not as likely to know people they saw when they moved around. Furthermore, some aspects of public transport were seen as unsafe, particularly isolated bus or tram stops at night. Within facilities and meeting places, difficulties were encountered when people were not friendly or welcoming, or when they did not share similar values where those values were very important. Many of these difficulties became risks, especially in relation to fears of personal safety among women, older people and on behalf of children. Fears related to traffic accidents and personal violence. Again, there was a perception that if participants were afraid or were attacked, there would not be supportive people on hand either to deter by their presence or to intervene.

Safety

Personal safety is a recurrent theme and was enhanced for many if there were people on the streets:

> *It's better when you are in town, there's always people everywhere. (Friends of Southern Hospice)*

One person described how she sought safety from the presence of others when, while walking, she felt someone was following her in a car:

> *I thought OHH ... I ... looked around and ... there was a lady gardening ... so I ... went over and I ... hesitated and watched this lady in her garden. He drove to the corner of the street and then he backed back as if he was going to park ... and I glanced at him and then I thought oh well I will walk on now ... I could hear a radio going and I think someone was working in a garage at the back of their house, so I hesitated there and walked slowly in their driveway. (Marion Volunteers)*

Some suggested that people walk in groups or with a dog for security:

Speaker 1 - I still think that unless people go in twos they have got a security problem, they do feel a little bit intimidated by the unforeseen.

Speaker 2 - That is why I must admit, having a dog with me has made me feel better

Speaker 3 - I do recall talking to older people and ... even though they are fairly fit ... they do seem frightened. They have to go with someone most of the time and not do it on their own.

Speaker 4 - there are no organised walking groups going anywhere is there? (Marion Volunteers)

However, a very different perspective came from other participants who felt that the presence of younger people on the streets posed a security problem:

Speaker 1 - ... you worry all the time about going out with a handbag ... you get worried when you see a two or three young people coming towards you ... but then they pass and you can relax a little.

Speaker 2 - Feel safe walking at night (no-one around) but not during the day ... At least I have my walking stick with me! (Friends of Southern Hospice)

There is not enough street lighting and it is not safe to catch the train (to Marion shopping centre) because of having to walk back in the dark. There are a number of young people who use the street as a thoroughfare and there has been graffiti. (St Maria Goretti)

It was suggested that both personal safety and participation in physical activity would be enhanced if there were more people on the streets. This suggestion fits with a suggestion reported earlier that organised walking groups would help people to feel motivated and safe while walking.

... both for the safety point of view and also the example, that if there are more people on the street then there are likely to be more and more. (Marion Volunteers)

These diverse, almost contradictory findings suggest the importance of examining the policy literature on crime prevention as well as urban planning.

Changes over time

The following quotation illustrates the importance of shared values in settings where physical activity took place and is used again to illustrate a common observation that values have changed over time:

... I went to a church school and ... if I got into mischief if the village copper missed me there was always the big fellow up top was watching ... (all laughing) so nowadays there is no big trouble up top, nobody knows about him. (Prime Timers Group)

In this example, the participant notes his experience of police and divine authority combining to maintain discipline, which is interesting given the number of comments from older participants that feeling unsafe inhibited their physical activity and attributing lack of safety to a breakdown in values and discipline. Although it was said in a jocular way, it may be interpreted more as an example of the group's shared values amid social change. In the remainder of the dialogue, participants discussed the altered role of the church but, at the end, agreed that the change is not necessarily for the worse:

Speaker 1- and I think also the younger parents of today are not getting their children involved (in the church) like we would have done, or we did do.

Speaker ... The next generation is not doing that.

Speaker 3 ... I think there are so many outside choices isn't there and that is part of the reason why perhaps.

Speaker 4 ... they can still be good children

(all agreeing) (Prime Timers Focus Group)

The positive ending to the dialogue above contrasted with recollections from a number of groups of times when people slept outside in their front gardens on hot nights and left the house open for people to deliver bread, milk and groceries. People also noted that when only one adult in the family worked, the women were at home and there were therefore more people around. I have noted before the concern that the removal of shops and services from local streets acts to reduce the number of people on the streets. This in turn led to feelings of danger for people who wished to walk yet felt unsafe and unprotected. These feelings of danger were linked to what participants saw as a breakdown in values in contemporary society. The most extreme example was in the views agreed to by many in the Friends of the Southern Hospice Group

Speaker 1 ... The government need to take drugs and sex and all that off the TV.

Speaker 2 ... Kids need some rights but they get them too young ... can't just do what they like because a society must have rules.

Speaker 3 ... Need to have stronger punishments ... there's no shame anymore.

Speaker 4 ... You used to be able to leave the door open all the time, now you worry all the time about going out with a handbag ... I hang onto my bag ... you get worried when you see a two or three young people coming towards you ... but then they pass and you can relax a little.

Speaker 5 ... I don't even take my handbag to the shops anymore ... I just carry the money I need in my hand. You read about things happening all of the time. (Friends of Southern Hospice)

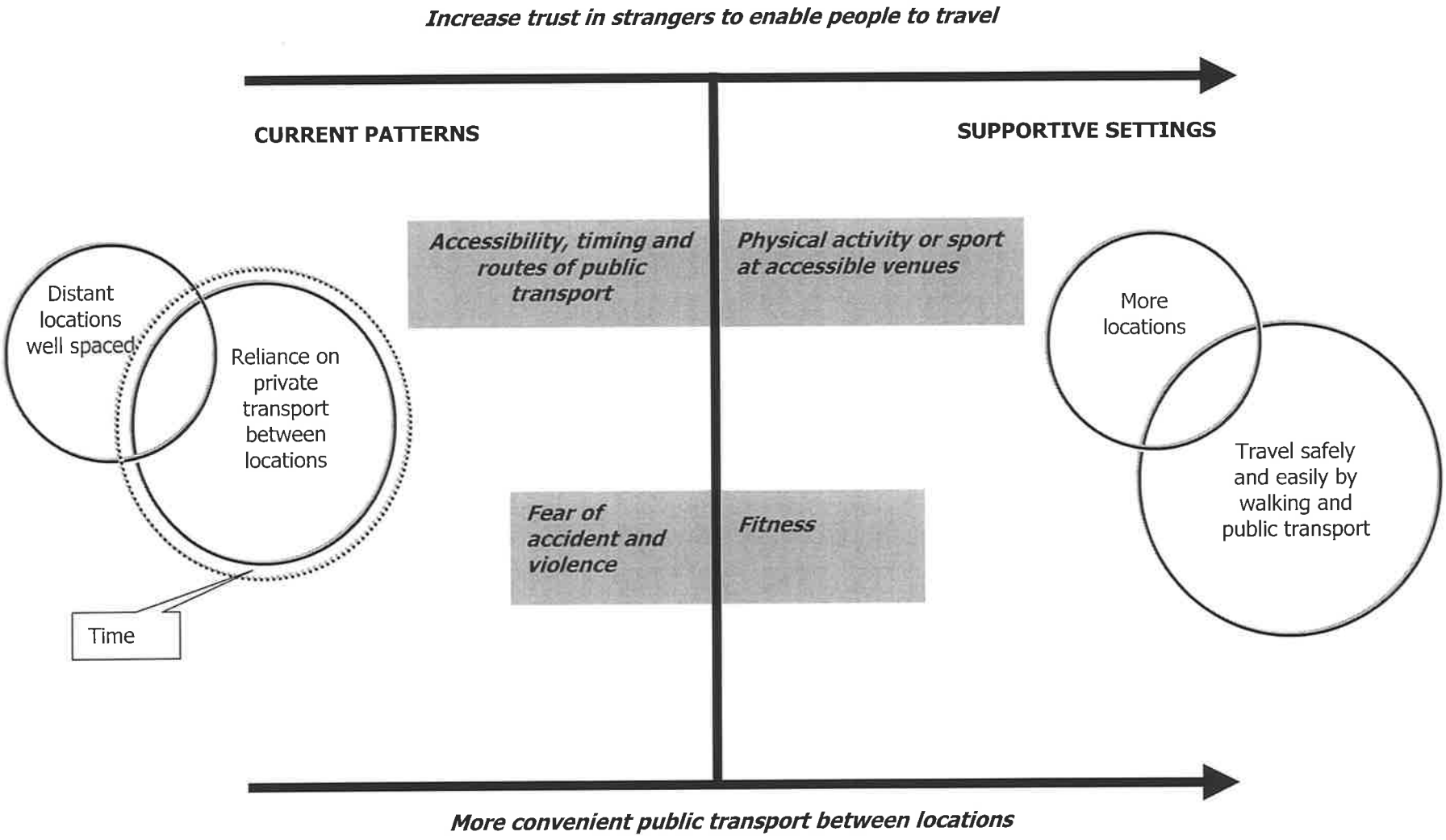
In this dialogue, fear of young people was traced to changes in social values and directly cited as a barrier to daily physical activity in daily life and reinforcing the value of their support group; particularly in fitting their values and providing a safe setting for physical activity. Here again, it is difficult to envisage a simple policy measure that would address these partcipants' experiences of being unsafe while walking, all within a broader context of a changing world from which they feel alienated or isolated.

The explanation in Figure 8.6 features a large circle combining *relating to people* ting with *moving through space*. This reflects the importance of friendliness, values and safety as people move between locations. Aspects of relating to people are also linked with locating in space because when facilities are inconveniently located people must move around more and are then more subject to the associated risks and difficulties. The time dimension refers to perceptions that spaces are now not as safe as they once were, there are fewer people on the streets which leads to heightened feelings of danger, and that there has been a breakdown in trust and social norms.

Options for supportive settings

The option in Figure 8.6 combines the *moving* and *relating* circles, envisaging people feeling safe when using a combination of walking and public transport to move between locations. Public transport would have to be accessible, affordable and move people to locations such as sporting venues and community groups that fit their values. People would feel safer because of the presence of others on the streets and on public transport.

Figure 8.6 Unsafe streets: moving relating and social capital



Case study E Netball: relating in safety while moving to sporting locations

Explanation of current difficulties with physical activity

This example is from the Prime Timers Group, comprising people who ascribed to the slogan *life begins at fifty* who formed a group, associated with a church, to provide service to the community and social activities for members. There was an extended discussion about the way society had changed. Topics in the discussion included:

- when participants were younger they rode bikes, but that changed by the time they had children of their own. As parents, they spent a lot of time driving their children to and from activities;
- the men used to ride bikes to and from work that was in itself very physical;
- it used to be safer when people knew each other, were visible on the streets

As facilitator, I paraphrased some of the discussion by saying:

> *Facilitator - So it was sometime between when some of you were children and when you had your own children that things were starting to change. Am I right?*

The response was as follows:

> *Speaker 1 ... My eldest daughter, we have been taking her down to play, what is the women's game, netball isn't it, at 10.30 at night, that is when the fixture was, in the pouring rain they were still playing and my wife and I were sitting like a pair of idiots on the side line waiting until the game finished, but in my time nobody would have thought of going out and playing any sort of game at that time of night.*
>
> *Speaker 2 ... That is a really good point. And that is a major change, which means that you may ride 12 or 18 miles to work but it is a little bit difficult - it is a different thing to do the same thing at half past 10 at night to netball.*
>
> *Many speakers ... That's right.*
>
> *Speaker 3 ... even week nights there weren't things on, it was just as (Speaker 1) said, it was just Saturday afternoons and you couldn't play more than one sport because whatever you played Saturday afternoon had to be your sport.*

(All agreeing).

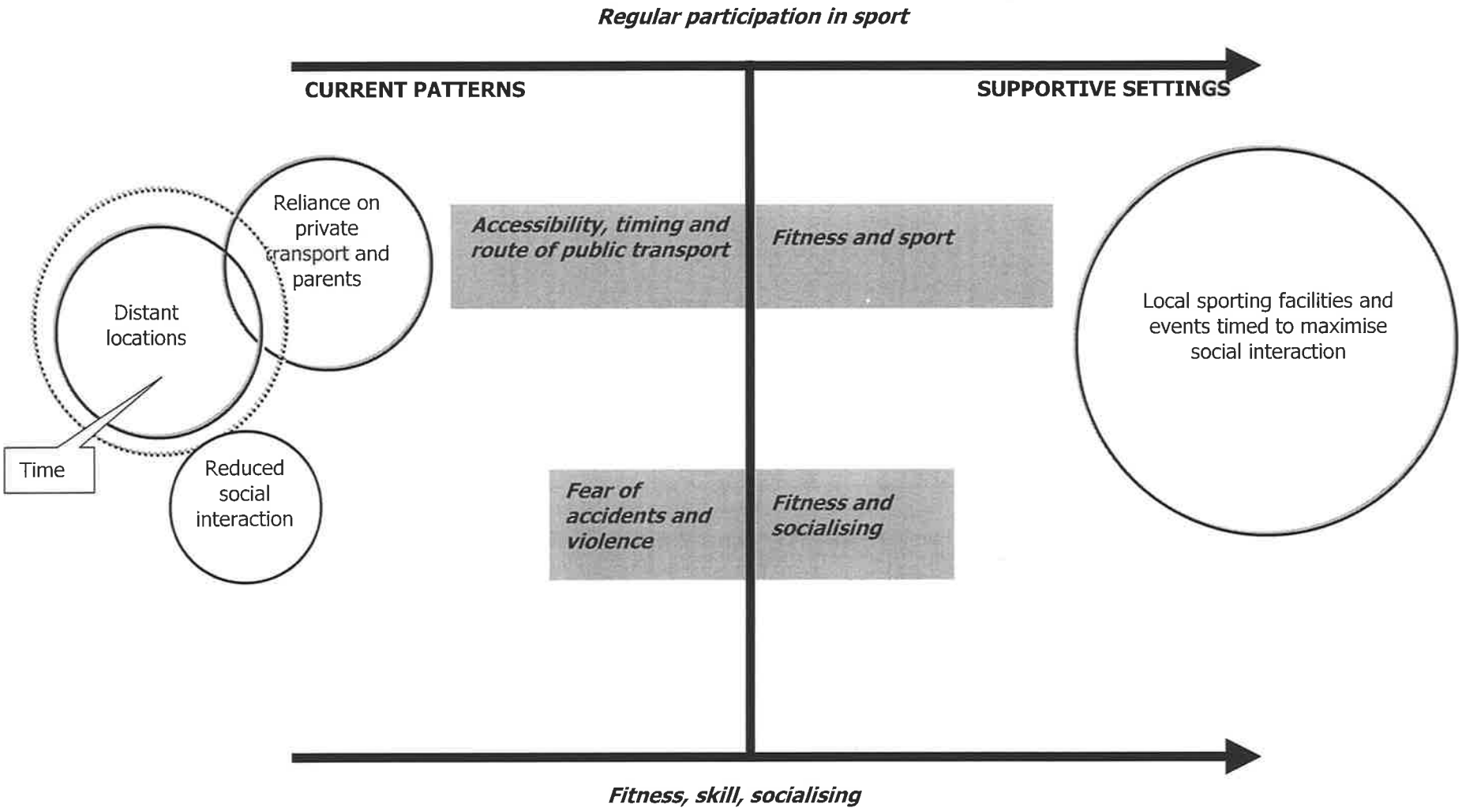
Speaker 4 ... and all your school sport was on Wednesday afternoon and all your inter-school sport was Wednesday afternoon, so the school bus used to take you around to your different sports and you would pick up everyone from the footy team and the lacrosse, I used to play lacrosse. So you would do that and if you wanted to play Saturday afternoon that was your district. Again I used to play lacrosse in the South Parklands.

Speaker 5 - I see a big change in that we used to play everything and now, especially if you have got your talent now, you've got to concentrate on ... you must play cricket, you mustn't do anything else, or if you are a tennis player. We used to play them all and enjoy them all and now I think the kids have to concentrate to give it every effort to make the top, and if they don't make the top they get bored, they drop out and they don't play anything and it just seems to me that we would enjoy it, where now unless you are on top you are a failure you drop out and you don't participate at all, and that was never a pressure we had on us. (Prime Timers Focus Group)

The top left part of Figure 8.7 explains current patterns of physical activity. *Locating in space* warrants a large circle because it is crucial to note that sports competitions for young people are located far away from where people live and are conducted at irregular times of the day and week. There is a *time* dimension because parents recall when they were young and most sports were held at local venues at regular times. It follows that *moving through space* assumes importance because of the need to travel, principally by private transport because public transport schedules and routes rarely support convenient travel from home to competitions at the irregular hours. Young people are no longer physically active (by bike, walking or in combination with public transport) on the way to and from competition. *Relating to people in space* is affected because competitions are no longer local, regular and a focal point for socialising. The view was expressed that the function of sport has changed from social participation to the pursuit of excellence.

The circles are depicted as separate because physical activity is separated from locating in the local area, is not involved in moving through space and is not strongly associated with social activities.

Figure 8.7 Relating in safety while moving to sporting locations: communitarian option



This case study is but one part of a broader issue with public transport. For example, younger residents in a more recently established outer suburb complained that there was either no public transport to take them to facilities and services or that it was inconvenient.

> *Speaker 2 ... after 9.00 o'clock (buses) are half an hour until about 11 o'clock and then they go to about an hour, but it is a shame because it is such a lovely area, its a shame that we haven't got more connections and more facilities here for us. (Trott Park Literacy Group)*
>
> *Speaker 3 ... (if there was) ... a connecting bus service ... at least they would be able to get out.*
>
> *Speaker 1 ... (to get to a pool they had to catch three buses). That makes us very tired ... getting back home, but the local bus is very often late and that is a big problem for us.*

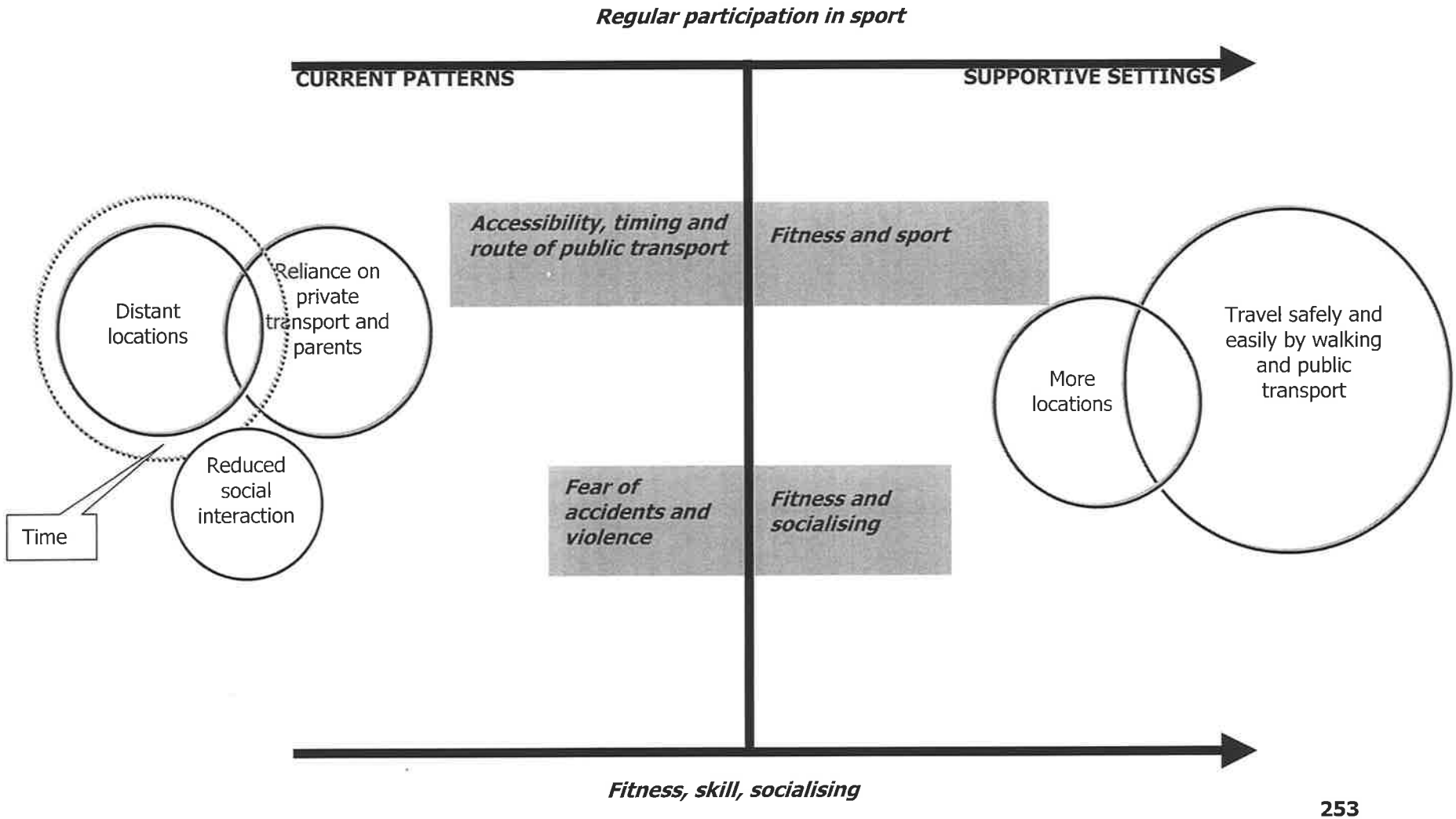
Options for supportive settings

There are two broad options for settings that support moderate physical activity in this case study. One may be called the *communitarian* and the other the *transport led* option.

The *communitarian* option is displayed in Figure 8.7. As for Case Study A, it proposes that the environment should be designed so that facilities used for sport are accessible and local. In order to build sport into the life of the community, events would be held at regular times and would promote general social contact. Sporting facilities would be close to other popular destinations so that the need for travel was reduced and so travel could be associated with other daily activities. For example, it would be easier to travel to sport on the way home from school or at fixed times at the weekend. I have labelled this the *communitarian* option because it proposes that most facilities and services should be available in a geographically defined community in order to maintain social connectedness. In this study, this option appealed to those who had experienced this kind of sporting arrangement in an earlier life and would prefer such an option for their own children.

Community, however, is not only defined geographically. There is also the notion of a community of interest, whereby people travel from one area to another in order to participate in activities which they value. Adelaide, like many other cities, has been built as a ribbon development and is geographically very spread out from north to south. Since the advent of private transport, it has been possible to locate some more specialist facilities and services in just a few places and ask people to travel to those specialist facilities. Many sporting facilities fall in to this category. In recognition of this, the second option is a *transport-led* option. In this option, the *moving through space* circle is prominent, representing a move to a well-designed public transport system that people consider to be safe and convenient; particularly for children and young people.

Figure 8.8 Relating in safety while moving to sporting locations: transport led option



Case study F: Pools, buses and halls: using and moving between specialised locations

Explanation of current difficulties with physical activity

Specially designed facilities: availability and cost

For people with mobility problems the availability and cost of specially designed facilities was very important. Examples included wide, uncluttered aisles in shops, car parking spaces wide enough for a car door to open wide enough to accommodate mobility aides and seats to help people to rest during walks. The arthritis support group, for example, discussed the design of swimming pools.

> *Speaker 2 ... we can go to ... (a pool) ... but I am frightened down there, the floor is so wet, and I am just frightened to walk on it too.*
>
> *(All agree)*
>
> *Speaker 2 ... I was all right when I was going to the one through Domiciliary but then they had one over at Plympton and you can get in but you can't get out.*
>
> *(All agree)*
>
> *Speaker 2 ... I haven't got any power in my hands to get out and I have fallen and knocked my shins several times, so I have had to give up swimming.*
>
> *Speaker 4 ... then they have the little metal steps in the pool, I can slide in but I can't pull myself out.*
>
> *Speaker 5 ... the pool on Hendry Street is very good, it's got big deep steps to get in and out of.*
>
> *Speaker 5 ... the water is heated.*
>
> *Speaker 1 ... because you can't get in cold water when you are arthritic.*
>
> *(General no)*
>
> *Speaker 2 ... (since a pool was closed) ... now there is nowhere I can go to do my swimming and I miss out on it, and that was the one thing that I found was good for the neck.*
>
> *(Arthritis Group)*

For the arthritis support group, if the design of swimming pools was not suitable, the consequences were not only certain increased difficulty in engaging in physical activity, but also possible risk of injury. As in the previous section, proximity was not sufficient to ensure use. In this case, appropriate design was an important consideration. This in turn leads to a further set of considerations, balancing the fact that the most appropriate facility is not the closest one with the difficulties of travelling, especially for people with existing mobility problems.

The arthritis group also discussed the difficulties of finding an appropriate meeting place for their support group.

> *Speaker 1 ... (we) ... have had a problem in the past three years - the availability of meeting rooms in this area. We were in(another hall) for how many number of years, and then when they did all their renovations we were told that we weren't allowed to be there anymore ... We were just lucky enough to have the Marion Men's Bowling Club - they didn't have bowls Friday so that was our day. But it is a lot of work, where we used to have a special cupboard with all our gear in it, well that is in my home.*
>
> *Speaker 5 ... all the stuff has to carted there.*
>
> *Speaker 1 ... and we have to set the room up and then we have to leave it exactly the way it is.*
>
> *(Arthritis Group)*

In this example, it was important to have an accessible meeting place in order to provide health and mobility related information. Again, they did not evaluate accessibility again only by proximity, but also by a difficulty factor whereby they would prefer to be able easily to store equipment that was necessary for the support group's activities.

In the following example, government funding cuts led to increased costs for a form of physical activity that helped to keep their joints mobile. These costs increased the difficulties of using exercise facilities.

> *Speaker 4 ... well now the council have cut down some of their funding because I go to a keep fit class ... and they have cut down their funding and now we have got to pay everyday we go because we have got paid instructors who teach us.*
>
> *Speaker 2 ... its not as though you want anything for free all the time, it is just to help you. (Arthritis Group)*

The arthritis group demonstrated clearly the difficulties faced by participants who had special requirements for facilities. If appropriate facilities were not available locally, then they either

had to cope with the difficulties and risks, weigh up the additional difficulties involved in travel to other areas to use facilities, or reduce their participation in the physical activity and other functions of these facilities.

For people with mobility problems the availability and cost of specially designed facilities was very important. Examples included wide, uncluttered aisles in shops, car parking spaces wide enough for a car door to open wide enough to accommodate mobility aides and seats to help people to rest during walks. The arthritis support group, for example, discussed the design of swimming pools.

Public Transport[40]

Those with arthritis commented favourably on the design of newer buses with hydraulic ramps to improve access and on the scheme providing modified taxis at a discount rate to people with disabilities:

> *Speaker 3 - Well some of the buses have got what you call - they go down and they come back up again.*
>
> *(All speaking together - they are newer ones/they are lovely)*
>
> *Speaker 3 - but there are only a few of them around at the moment.*
>
> *Speaker 4 - that is an improvement too, the new buses...are great.*
>
> *Speaker 5 - I do get half taxi fares but you can't be using taxis all the time.*
>
> *(Arthritis Group)*

Without special design, public transport was so difficult to use that some decided to walk if it was within their limits:

> *Speaker 4 - I find it easier to walk to Marion from where I live which is about 20 minutes longer than getting on a bus, but I couldn't get on the bus.*
>
> *Speaker 5 - I can't walk very far and I wouldn't be able to walk to a bus and then get, and then getting on and off. If it was a stationery bus and I had a lot of time yes, but not one that is going to move, I wouldn't be on quick enough.*

Speaker 3 - I don't sit on the bench seats ... waiting for a bus, they are too low. Because when the bus comes I can't get up again. So I time the bus well so I have only got a few minutes wait ...

Speaker 2 - the Glenelg tram is the one that I can't travel on.

(General agreement) (Arthritis Group)

In some cases, the person could make a sign to the bus driver who would take care to pull up and drive off in a way that made it easier; however the problems associated with inappropriate design of buses persisted:

Speaker 2 - I mean they are too high ... but with the local one, I usually wave them down like you have to do, but I step back 2 steps and he will come right into the kerb for me. If I just stand on the step, he doesn't come in, but he knows if I step two back, he knows I want to get close because I haven't got the power in my hands to hold that ... and pull myself up. I have to wrap my arm around that bar to pull myself up and I have got it down to a fine art now, I step right back, he comes right to the kerb and I say thank you very much, and they understand. If I knew what was coming that would be fine, but you don't know you see so you don't take a chance. So if I walk it is easier than getting on a bus.

Speaker 6 - it is difficult sometimes when you go out of the bus, you have to hang onto the door so it won't close.

Speaker 1 - that is very hard too.

Speaker 2 - I used to go out the middle, one day he said you go to the rear and I said I go out this way, I cannot push, I haven't got the power in my hands.

Speaker 6 - ... the door is not an automatic. (Arthritis Group)

Some commented on drivers skills and the attitudes of other passengers when, as people without a visible disability, they sat in seats designated for the handicapped:

---

[40] Participants from a number of groups nominated the importance of transport and access. One example is the need expressed by participants in the Prime Timers and Marion Volunteers groups for seats so people could rest as they walk longer distances. Another is the dependence on motor vehicles for transport. In the Arthritis, Marion Volunteers, and Trott Park Literacy groups there was discussion of the problems people encounter when they, or their spouse, can no longer drive. In many cases, sons and daughters drove their parents to churches or clubs. The Marion Volunteers frequently drove older people, or people with disabilities, between locations. In the Arthritis group, a participant described the way a friend used a gopher (a small electric vehicle) to travel on footpaths and across tram tracks and roads to go to church. A number of participants then agreed that gophers enabled people to be much more mobile and independent.

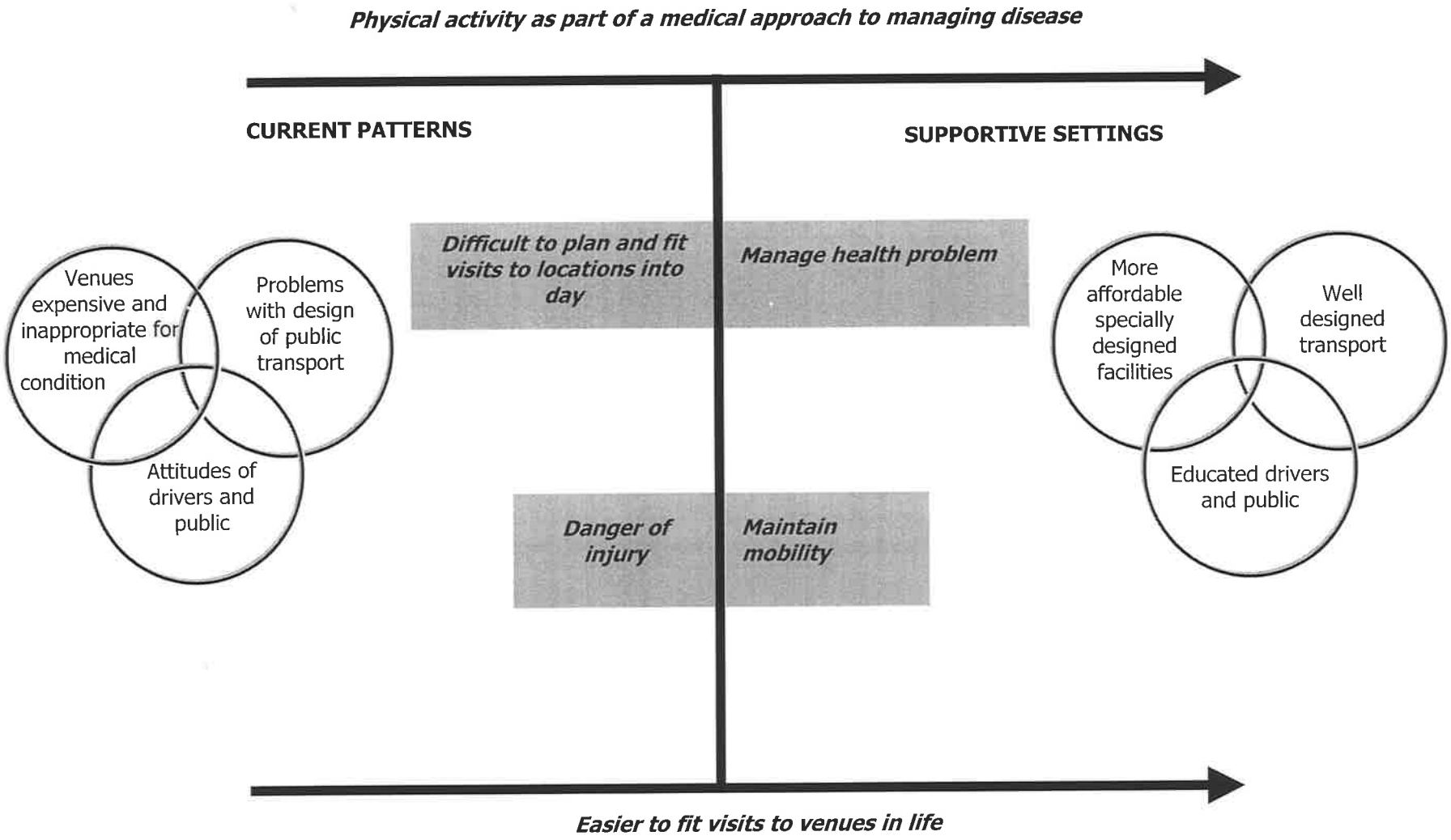
Speaker 1 - they are very dangerous, and some people are very inconsiderate too, they get out themselves and slam ... the door ... You can complain about the drivers sometimes, they take off too quickly before you are seated and that is a bit difficult.

Speaker 2 ... I know the front seats are for people with disabilities, because I always sit in them and I have heard a couple of oldies behind me one day saying she shouldn't be sitting there and I felt like turning around and saying "Listen lady I've got an artificial hip and I'm not moving up the back for anybody."

Speaker 5 - you also find now that on the buses now there is not a lot of room for the mothers with their prams. (Arthritis Group)

Figure 8.9 shows current difficulties revolving around problems with the accessibility and design of venues. The locating circle shows that the function of these venues is to assist people to manage health problems by undertaking carefully designed physical activities. Increasing expense can reduce the frequency of use. Specialised venues are often a great distance from where people live, so the moving circle shows the problems of public transport that is not designed for people with disabilities. The relating circle demonstrates attitudes and practices of drivers and communters that make it difficult for people with disabilities. If the venues and public transport are not well designed, there is a danger of injury.

Figure 8.9 Ensuring safety while using and moving to specialised locations



Options for supportive settings

Figure 8.9 suggests a vision for supportive settings that moves the three circles together, seeking affordable, well designed facilities accessible by appropriately designed public transport. Education for drivers and commuters would makle it easier for people with disabilites to travel. Physical activity is considered as a part of managing health problems so people retain the mobility they require to participate in society. Convenience is expressed by participants being able more easily to fit visits to specialised locations into their day.

An analysis for healthy public policy

In this section I draw on combinations of the six case studies from the previous section and propose processes for placing healthy public policy on both micro and macro healthy public policy agendas. I have addressed the case studies in combinations, rather than individually, in order to reflect and incorporate the complexity and contradictions involved in policy development. This is part of my quest to analyse research findings in such a way that they can be useful for policy development. I have thus selected combinations from the case studies that illustrate differences in perspectives and values. I have argued throughout the thesis that values underlie policy, and this section highlights differences in values which arise when different interest groups or policy actors seek to influence the policy agenda from very different points of view. This section starts with a description of some key features of combinations of the case studies from the previous section. I then propose policy processes, discussing them in relation to conclusions from the review of policy literature from Chapter Three and taking into account elements of the critique and pitfalls of the new public health from Chapter Two.[41]

Case studies A and B explore the policy agenda within a geographical community, or *Gemeinschaft*. Some of the policy strategies in Case A, concerned with supportive locations for adults, are incremental in nature. They refer to core and basic services at the local level which can be reached by adults by car, public transport, walking, cycling, or any combination of those. Case B, concerning barriers for children cycling between local destinations, taps into more fundamental ideas about the potential, future, independence and safety of children and the world into which they will grow.

For young children, family, school and local areas are central parts of their worlds because they do not have the choices and resources of adults. When parents reflected on these issues, they were not only thinking about changes to transport and infrastructure to benefit

[41] The final chapter elaborates on some of the theoretical implications of developing healthy public policy in conjunction with the sectors, which I mention in this chapter.

their children, but also about the differences between their own childhoods and their observations of the way their children located, moved around and related to people. Parents feared that their children no longer have the freedom they themselves had enjoyed to move around, relate to their friends and explore the world. Parents expressed concern that their children were growing into a more closed, unsafe world that would decrease their confidence and independence – destroying the magic of childhood. Here, parents are contemplating very different values about childhood and community. Some of the proposed policy strategies, such as *Safe Routes to School* and creating car–free neighbourhoods are part of more than incremental changes to footpaths and the introduction of painted lines for bicycles on crowded roads. Instead, they require fundamental change in urban planning and the culture of, so that parents might judge that the local area is safe enough for them to allow their chidren to explore independently.

It is difficult to imagine policy strategies here that lie predominantly within existing frameworks of policy actors. So in order to examine Cases A and B together, it is necessary to explore how local and national policy agendas could form a dialectic relationship whereby the synthesis of the two policy agendas produces different results from those developed at the local or national level alone.

Cases C, D, E and F deal with facilities and reflect more of a community of interest, or *Gesellschaft,* than *Gemeinschaft*. One potential policy contradiction here is that Case C suggests policies that encourage people to develop and join organisations which suit their strongly held values while providing opportunities for physical activity. Case D, on the other hand, shows us that people often have to move through urban space in order to use the organisations whose values and activities they enjoy. In the process, they perceive that they are exposed to physical danger from strangers, especially those younger people who, in Case E, I argued should be assisted to travel quite long distances at various hours of the day and evening. Yet this could contribute to the fears of the older people in Case D. A synthesis of these possible contradictions would be to develop policies that encourage the development of organisations that suit people's values, while advocating for public transport which people feel is both convenient and safe. As in the previous discussion of Cases A and B, there is also the more intangible policy question of constructing urban spaces in which people feel safe, connected and welcome. As with the discussion in the previous section, this is not a simple matter of providing infrastructure and services. The issue of older people being very scared of younger people taps into deeper feelings of connectedness and trust and, in turn, to the concept of social capital.

Another possible contradiction concerns friendliness and values. In my discussion of Case Study C, I noted how important it is to have facilities and groups that provide opportunities for physical activity amid social interaction between people with shared values. I then related

these findings to the contemporary discussion of social capital. One aspect of Case Study D about moving to locations safely (especially for older people) may shed a different light on the concept of social capital. Eva Cox looks in detail at the implications of various, contested, definitions of social capital, arguing that:

> *... if social capital is conceived of as constituted by the kind of trust which works only with familiars, and is primarily the product of thick, intense relationships, its conception is circular and of little value (Cox 1997 p.3).*

Cox proposes an alternative definition of social capital that involves learning skills that can be applied in less familiar or less comfortable situations:

> *There needs to be some mode of transference, the possibility of using the learned trust in other situations where the signs of a common cause and shared values may be absent or less visible. Therefore I am prepared to argue that social capital is only really measurable by evidence of its application in non-familiar situations (Cox 1997 p. 3).*

From this case study one option is for me to judge that the Southern Hospice Group is an example of a structure that contributes to social capital because members travelled long distances to the group, appreciated the interaction and enjoyed strong support. This judgement would be based on the definition of social capital that Cox (1997) criticises as circular. If, however, I use Cox's second definition of social capital, I would ask whether the undoubtedly positive experience of the participants in this group is transferred to non-familiar or uncomfortable situations. In this case, if that is the primary group to which participants belong, the answer to that question is *no*, because the participants expressed fear of, and alienation from, many parts of their social worlds, in particular in relation to both the presence and values of younger people. In this case, I argue that this support group is more a haven or a refuge from society. This contrasts with my comments about the Prime Timers and Marion Volunteers groups in Case C, in which participants enjoyed each other's company but saw their group as a platform from which they could contribute to the wider community. The Southern Hospice Group also contrasts with the Arthritis Group and the Australian Retired Persons' Association. While both of these groups provided activities and support for people with similar problems and experiences, I found no evidence that they served as refuges from a community perceived as threatening or unsafe.

There are yet other possibilities arising from the preceding discussion. People may belong to one or more groups, with one serving as a refuge and others being more connected with communities. Alternatively, over time people may move from a group as refuge to other groups or activities that are connected with communities, especially in this example where older participants came together around the common issue of bereavement.

In relation to the discussion in cases C, D and F about travel between facilities, there is scope for technical solutions involving design of facilities and transport as well as the need for education of drivers and commuters to ensure that public transport is effective and convenient. In order to suggest analyses for healthy public policy I now develop a model that seeks to combine incremental and fundamental policy decisions in relation to my research findings. As I do this, I take into account two other dichotomies:

- the *micro* versus *macro dichotomy* that I discussed in Chapter Two;
- the *activist or bottom up* antecedents of the new public health versus the *community development or top down* antecedents from Chapter Six.

I discuss these dichotomies in relation to my research findings that many of the policy actors at the local level are more likely to place proposals for incremental decisions on the agenda because they do not have the power to make fundamental decisions. Conversely, actors at national and international levels have more power to influence fundamental decisions.

A macro view emphasises the larger structural forces (economic, political, cultural, organisational) that shape everyday lives. The micro view emphasises the everyday practices of individuals (Robertson & Minkler 1994).

There has long been a debate among advocates of the new public health regarding the relative merits of what is often called a *top down* versus a *bottom up* approach to policy development. As I explained in Chapter Two, the new public health builds on a long tradition of protest movements and activism. These roots strongly suggest a preference for bottom up policy development, as illustrated by actions in issues such as feminism and other protest movements which started from the perspective that groups must mobilise in the face of oppression and inequality, much of which was either state sanctioned or sponsored. In this context, concerted action by the people is needed to reform the structures and policies of the state itself.

Running alongside this bottom up approach are a set of arguments that I introduced in Chapter Six which derive from the community development heritage of the new public health. This heritage accepts that there is a role for the state, especially a social democratic state, in advocating for change for collective benefits, even if this involves structural change to the government itself.

I do not argue that there is a universal and exact equivalence between micro, bottom-up and local levels and between macro, top-down and national/international levels. In relation to my research findings, however, I argue that the incremental decisions that are more likely to be made at the local level frequently focus on measures to change the behaviour of individuals or groups. Calls to make fundamental decisions more often are directed to the national or international levels. Neither do I argue that these are true dichotomies. Rather, I agree with

the principle that a more constructive approach is to re-frame each as being in a dialectical relationship with each other: each informs, produces, and reproduces the other - mediated by the mid-level sphere of social organisations. These organisations include churches, neighbourhood organisations, schools, service organisations, voluntary organisations and the networks which link these together. Indeed, the Ottawa Charter itself proposes a combination of micro and macro processes. Calls to improve the personal skills of local advocates sit alongside calls for healthy public policy, intersectoral action and reorientation of the health system.

Against this background, and taking into account the micro and macro dimensions I have already identified in my case studies, I argue that it is theoretically and practically possible for healthy public policy to be initiated not only from a concern with incremental decisions at the local level,but also from the motivation to achieve fundamental decisions at the national/international level, or by a combination of of both. For example, local concerns about a bicycle track could grow into larger concerns about transport planning generally. National or international initiatives such as *Safe Routes to Schools* could mobilise action at a local level and stimulate local change. Alternatively, a community health worker could simultaneously support local community action about a bike track while invoking the authority and assistance of a national or international transport initiative to influence fundamental decisions. Yet, apart from these theoretical arguments, there is a very powerful pragmatic reason for examining the relative contribution of local and national approaches to healthy public policy. Health and related policy development in Australia occurs in a complex context invoving three levels of government, all of which are involved to some degree in all of the policy questions and actor networks I describe in this chapter (Palmer & Short 1994).

Therefore I have not proposed a giant network involving all players sitting at the same table and simultaneously dealing with local, state, national and international policy questions. Instead, I build on my discussion in Chapter Five about the evolving role of government in Australia and note that there is no clear agreement about a hierarchy whereby each level of government operates according to a clear set of understandings about where its roles and responsibilities start and stop. Issue by issue, area by area, there are different mixtures of programs, responsibilities and funding arrangements involving local state and federal governments, together with non-government agencies (such as the National Heart Foundation) and powerful professional interest groups. However, as I noted in Chapter Five, Commonwealth and State governments increasingly see themselves as determining the policy settings and monitoring implementation, while not necessarily providing the services involved. I argue that this provides the opportunity for governments to stimulate and fund processes to develop policies according to the model I propose here.

It therefore makes practical sense to construct a model that can consider what might be the most appropriate roles for the local and national levels. In the remaining part of this chapter, I present a model which can be interpreted as starting locally, nationally, or a combination of the two. I start by building the model from the local level and then introduce a national perspective. After this, I consider how these approaches can work in harmony. I conclude by examining some common issues faced by advocates of healthy public policy at all levels.

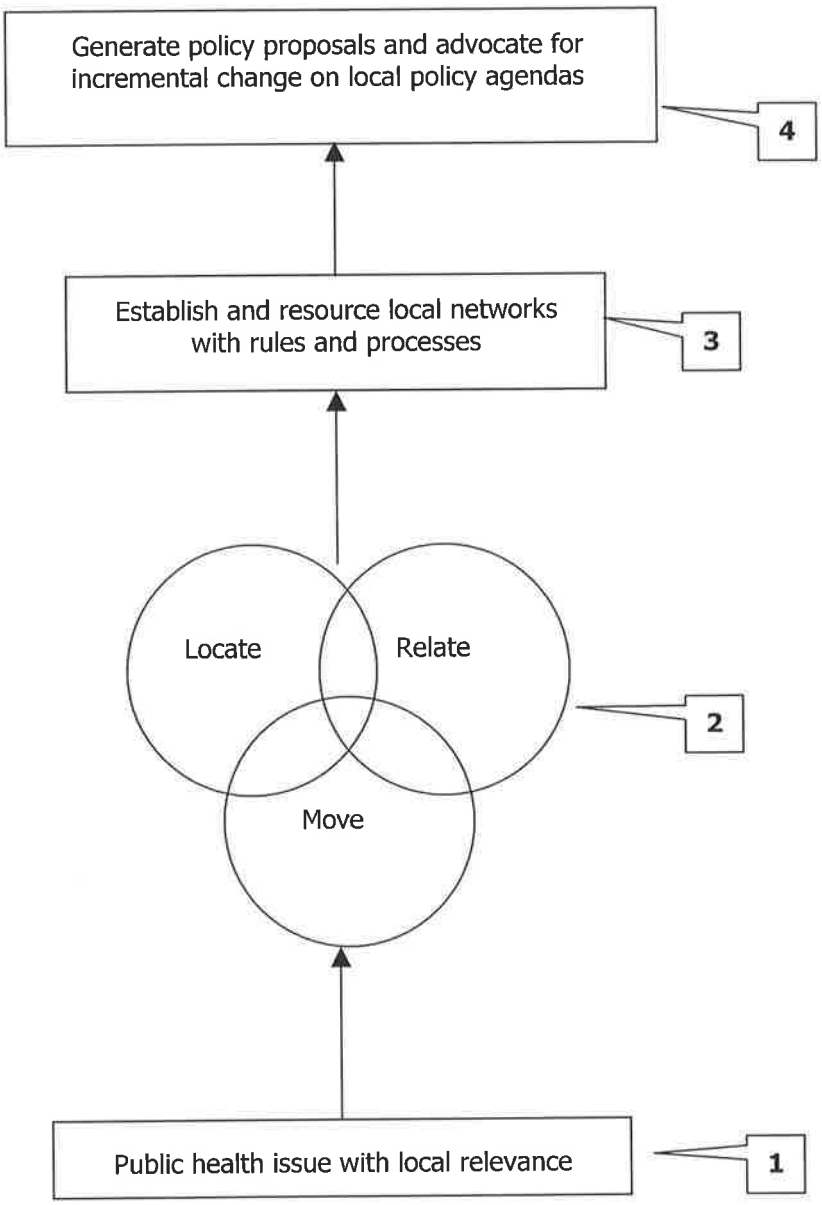
Local-incremental decisions

Using the theories of policy discussed in Chapter Three, I argue that, in relation to my research findings, policy development at the local level frequently involves *incremental decisions* whereby decision-making successively limits comparisons of a number of alternatives and simplifies choices to those that differ least from existing policies. While this may ignore the consequences of the entire range of possible policies, one chooses among values and among policies at one and the same time. The incremental model says that instead of specifying objectives and assessing what policies would fulfil those objectives, the decision-makers reach decisions about competing policies by assessing the extent to which they most closely result in the attainment of desired objectives. This is also known as *muddling through*, where the test of a good policy is whether it secures agreement of the interests involved (Lindblom 1959).

In Chapter Three I described the outside initiative model of policy agenda setting, whereby the central question is "how does legitimisation of a social problem to a policy problem take place?" and, as a result of sufficient public and interest group pressure, the issue will move from the systemic or societal agenda and will find a place on the institutional agenda.

Actors in the policy network will then negotiate in order to recommend policy changes that answer the set question while contributing to each actor's own policy agenda. In other words, the aim is to promote incremental change within the values and bounds of each participating actor's sector.

Figure 8.10 Advocating for healthy public policy at the local level



In Figure 8.10, policy development starts (Note 1) at the local level with a number of potential health research questions with policy implications. From these potential questions, individuals or groups will decide which question or questions have very high local relevance, or are what Considine (1994) describes as *hot* topics. In order to select from the many potential topics, policy actors may bring into consideration the potential for effective local policy networks and the potential to link with issues at the macro level.

Once the research questions are selected, the next stage is to select a research methodology which leads to an analysis focussing on characteristics of people in their settings. As shown in Note 2 on Figure 8.10, this leads to a discussion of results that help determine the various sectors that must be involved in analysis for healthy public policy development. During the research, it is important to establish and allocate resources to local networks. Organising collaboration, partnerships and negotiating between sectors is problematic and time consuming (Baum 1998) so it is essential for actors to agree on rules and processes and find the resources necessary to establish networks (See Note 3).

Local policy actor networks

Actor networks are the informal and semi-formal linkages between indivduals and groups in the same policy system. Networks may be based on strong commitment or on a loose common concern to share information. Participants in networks attempt to define their own identity as advocates of issues or problems. Participants practise communication mechanisms which enable sub-groups to develop shared policy preferences and methods for representing these interests. In these networks, policy is made through a mixture of co-operation and conflict, and by balancing continuation of past routines and habits with new strategies to deal with new circumstances. Policy networks are not institutional abstractions, but comprise real people whose relationships with each other contribute to the way policy develops (Considine 1994).

Figure 8.10 (see Note 3) refers to policy networks comprising actors with interests in locating, moving through and relating in space, the themes I have used to analyse the cases in this chapter (Note 2). In order to engage with the issues described in my case studies and develop healthy public policy, there would have to be extensive analysis of actor networks. However, my purpose in this thesis is not to develop specific policies. Therefore I neither propose hypothetical networks in detail, nor discuss and critique actual networks. Rather, I start from the assumption that actor networks would comprise many interest groups, including government and private enterprise, services, researchers and academics, professional associations, lobby groups and international organisations. Then it is important to establish networks between policy actors, usually using *champions* who are asked by their organisation to develop *boundary roles.* Boundary roles involve both allocating resources for, and asking managers to take responsibility for collaborating with other organisations.

Collaboration and network building requires a mindset and skills that rely on trust, equity and fair-sharing and reciprocity (Limerick & Cunnington 1993).

Considine makes the following important distinction between instrumental and developmental dimensions of participation in policy systems:

Instrumental dimensions produce decisions, programs and other outcomes that actors value. Emphasis on instrumental dimensions leads to policy being constructed as the task of choosing the right instrument to solve the problem;

Developmental dimensions communicate ethical and moral norms and build trust and solidarity between actors and policy is viewed as part of a continuing set of problems which require continuing changes in relationships between individuals and organisations (Considine 1994).

In Figure 8.10, I propose that at all points in the policy process there should be an preference for developmental approaches, especially if the policy question and process at the local level are limited to incremental approaches.

Crafting the policy proposals and advocating for change at the local level

As shown in Note 4 on Figure 8.10, the next step is to craft policy proposals in ways that focus attention on settings to synthesise individual and structural agency, as discussed in Chapter Two. The policy proposals that enable such a local network to operate are most likely to be those that are salient for each policy actor and produce results that are tangible enough to maintain interest and to make the investment in developing collaboration worthwhile. In relation to my case studies in this chapter, my argument for the types of policy proposals touches on ideas that I discussed in the critique of the new public health in Chapter Two. For example, a proposal involving safety cannot refer only to health outcomes if it is to be salient for the criminology sector. To use the terminology from Chapter Two, the question cannot be *healthist*. Health, defined in terms of reducing the incidence or effects of disease, may not be the ultimate criterion for policy development. In the language of Chapter Two, health may be either an end for policy, or a means. For example maintaining mobility and fitness is a means whereby people with arthritis continue to participate in society. However, the observation that walking leads to rehabilitation and protection from further health problems for those who have experienced heart surgery fits the description of health as an end for policy.

Policy proposals should also be crafted in a way that acknowledges that a socio-environmental approach to the promotion of physical activity should incorporate medical and behavioural approaches. While I presented this as a theoretical argument in Chapter Two, my case studies in this chapter also strongly support this argument. For example, the discourse

on arthritis and physical activity involves using physical activity to manage medical conditions associated with arthritis, keeping fit and recognising physical activity as a means for maintaining social interaction and community connnectedness. Clearly, in this example, health promotion does not deal with either one of the three approaches; it must deal with all simultaneously.

Limits of local-incremental policy processes

There is scope for clashes within local policy agendas and between local and national agendas which can narrow the focus of policy action to incremental decisions. As shown inTable 3.2 in Chapter Three, there is a range of agenda management techniques available to gatekeepers. These techniques can be used when powerful actors, inside or outside the actor network, perceive that a policy question or process is against their values or interests or when there is the degree of discordance between expert and ordinary theory that I discussed in Chapter Seven.

In these cases, policy proposals are not just incremental because that is what is needed to get the actors together. Policy making is infused with values and the metaphor of a policy agenda involves powerful interest groups who compete with each other to place items on, or keep them off, the agenda. In the case studies in this chapter, there are some obvious examples of competing values, interests and outcomes in relation to services at the local level. Participants in case studies A and B, and actors in the relevant policy networks, certainly cite as barriers to accessible services car domination, inaccessible public transport, reductions in government services and closure of small shops following competition with large shopping centres.

Such debates about the importance of the motor-vehicle to the economy of Marion and South Australia reflect the fact that Australia is a mature capitalist state, which is in transition from capital accumulation based on concentrated, industrial mass production to one based on de-concentrated, flexible production including production in the home, in the underground economy and in Third World areas (Freund & Martin 1993).

Yet, looked at in another way, each of these barriers can be framed as positive in the area under study The car and good roads allow fast, flexible and individualised transport in the area, and car and component industries and an oil refinery are major local employers. Economic arguments are advanced for smaller government and concentration of services under one roof, and an international shopping mall company is a major local employer. Strong arguments against car domination, service reduction and concentration of shopping in private malls are countered by arguments about employment, freedom to move around the area, reduced taxation and efficient location of services. All of these arguments are supported

by national and multi-national commercial and government interests, as well as by a deeply ingrained national culture. For example, a motoring association's magazine proclaimed

> *Australians have a love affair with their cars and their country. So it's no surprise that thousands of people each year combine the two into "The Big Trip." About this time of year, caravans and trailers are hitched to the family car or 4WD, maps are scanned and the city is left behind in search of new adventures and sights. (Turner 2000)*

Another example relates to the cultural values about suburbs. While there has been criticism of the consequences of sparsely populated suburbs, this must be considered against what has been described as a long held Australian cultural preference for suburbia. This preference goes back to the early days of settlement, where European immigrants reacted against overcrowding and economic prosperity enabled the development of suburbs with lots of space and large gardens. This is also demonstrated in reactions against the increased density that results from urban consolidation (Frost & Dingle 1995).

Clearly these interests could not be expected easily and immediately to agree with a locally derived policy, arising from a coalition of locally based actors, that called for immediate and significant reduction in car domination, increase in government services and curtailing of the concentration of shopping and services in private shopping malls. Certainly any debate on this issue would involve powerful, value laden issues such as individual freedom, employment, taxation the role of government and the perils of rapid change.

In the case of policy proposals that seriously challenge prevailing values, decisions in the short term may be limited to those which are incremental. It could be that the very act of identifying the macro elements of what started as a micro policy question could lead to powerful policy keepers attempting to prevent the question from gaining space on the policy agenda, remove it from the policy agenda, or reframe the issue.

For example, Cases A and B refer to the implications for urban and transport planning of domination by motor vehicles and large shopping mall corporations. These policy actors are powerful and would seek to remove from the policy agenda any proposal to reduce their influence. At the local level, people (for example in Marion) depend heavily on motor vehicle and shopping mall interests for employment, amenity and entertainment. Many aspects and uses of cars and shopping centres are also highly valued, including by participants in the study who used cars to move to places (including large shopping centres and associated facilities) where they met and socialised. Underpinning all this are values about freedom of movement, free enterprise and choice and the role of government in social engineering.

In this context, references to international treaties could result in calls to retain Australian sovereignty and resist being told what to do by outsiders. This is an increasingly common

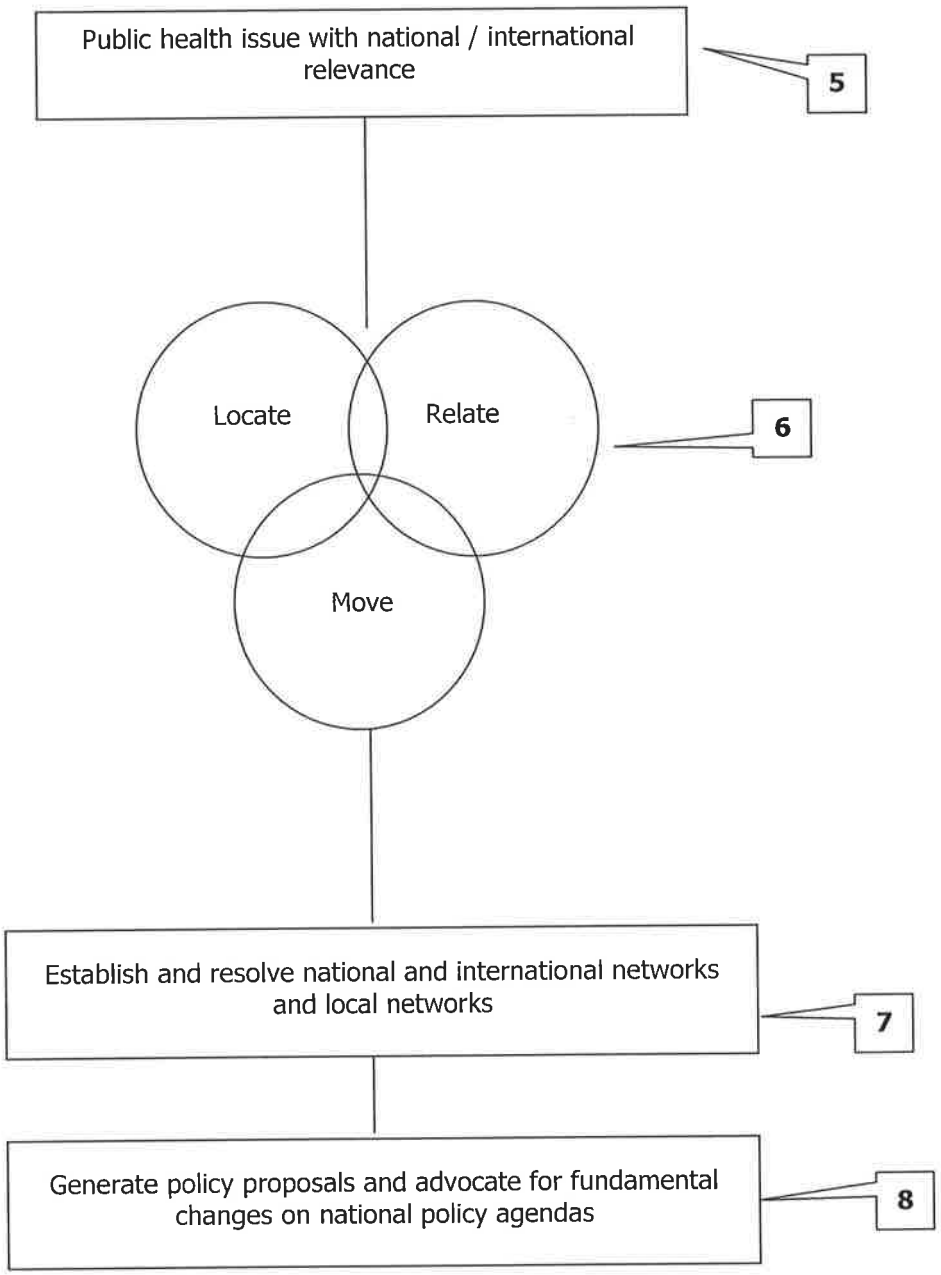
response to the problems associated with globalisation. It is apparent from this example that a policy proposal that makes sense in one area (eg immediately reduce car and shopping centre domination for health and safety reasons) would be in serious conflict with policies in another area (eg maintain employment in the motor and retail industries so we can buy Australian, be proud of our achievements and provide secure employment and futures for our children). If a debate about health, motor vehicles and shopping centres was framed as I describe above, it is most likely that arguments about employment, choice and the benefits of cars and shopping centres would prevail. In this example, the short-term aim would be to find creative, local changes while exploring what national agendas to invoke without being counter productive at the local level.

National-fundamental decisions

I have argued that many of the policy questions in the case studies in this chapter call for fundamental changes in ecological, transport and economic policy to enable local structural changes to create an environment that supports changes at the macro or national level. A national level or top down approach can help policy development at the local level by expanding the possibilities or boundaries within which incremental changes occur. This argument draws on the literature review in Chapter Three (Table 3.3) where I presented an *inside initiative* model of agenda-building, where insiders more or less independently place issues on the institutional agenda. These insiders are a government agency or a group that has easy access to the policy makers and political decision makers.

Figure 8.11 describes the national-fundamental perspective on analysis for policy. While this is largely a mirror image of the local-fundamental approach described in the last section, there are some important differences. The public health issues and policy proposals at this level (see Notes 5, 6, 8) should have national or international relevance; for example ecological concerns relating to pollution, that inform moves to reform transport and urban planning policies.

Figure 8.11 Advocating for healthy public policy at the national level



National policy actor networks

Figure 8.11 (see Note 7) refers to national policy networks comprising actors with interests in locating, moving through and relating in space. At this level, I propose that policy actors not only meet to discuss national policy development, but also that they also fund networks and processes at local levels to generate research that leads to the development of policy questions that can in turn inform national policy. There are three reasons for this proposed strategy.

I have argued that it is important that those driving the policy process pay particular attention to Considine's notion of developmental dimensions of participation in policy systems. Funding and encouraging local networks is a concrete way to promote developmental dimensions.

In Chapter Five I concluded that, under contracting-out provisions of the new public management, it is often difficult for smaller organisations to direct resources away from contracted tasks into new or collaborative areas. One option is for the national level to fund these processes by framing them as contracts and tenders for processes. However, care must be taken in the way contracting and tendering is designed. As I have discussed in Chapter Five, the new public management, based as it is on neoclassical economics, has the potential to contract-out reductionist policy questions as if they were very small products in the market to be tendered for competitively by a number of independent actors. Further, co-operation could be reframed as collusion or anti-competitive, and therefore illegal, practice. As a result, contracting out would remove the social context from policy development, make collaborative policy development difficult, and render it virtually impossible to consider complex questions such as those raised about the future independence of children, exclusion, safety and social capital. My proposal is for tenders and contracts to specify collaborative outcomes and provide adequate consideration and resources for processes whereby policy actors work hard at collaboration.

An additional argument in favour of this strategy is that policy actors at the local level are unlikely to have extra resources to commit to establishing networks. For example, in Chapter Five I showed how changes in government policy towards contracting and tendering for specific projects reduced the capacity of two organisations to add a developmental dimension to physical activity projects.

Crafting the policy proposals and advocating for change at the national level

As at the local level, the principal questions or issues that enable a national network to operate are most likely to be salient for each policy actor. One way the local level differs from

the national level is that under Section 51 (xxix) of the Constitution the Commonwealth has considerable power to make laws designed to implement its obligations as a signatory to international treaties or agreements. The Commonwealth can use this power to legislate, even if the subject matter does not otherwise fall within the Commonwealth's power as defined by the Constitution. The significance of these external affairs powers is enormous because there are so many international arrangements and agencies that affect public health, including the World Health Organisation. The external affairs powers significantly shifts the State/Commonwealth balance towards the Commonwealth, as the practical effect of Commonwealth legislation under this power would be to override an inconsistent State law (Reynolds 1995). The power of the Commonwealth is also enhanced under Section 96 of the Constitution by a grants power that allows the Commonwealth Government to grant financial assistance also has to any State on such terms and conditions it thinks fit. The extensive use of conditional grants has allowed the Commonwealth to wield control in areas that are under State responsibility (Reynolds 1995).

Limits of national-fundamental policy processes

Earlier in this chapter I noted that there is scope for clashes of values between local and national agendas which can narrow the focus of policy action to incremental decisions. There is also a converse limitation of policy proposals initiated from the national level, namely that there is not strong local involvement and ownership. One example is the difference in the application of the Commonwealth government's Active Australia strategy in New South Wales and South Australia. In New South Wales a task force was assembled and worked to a strategic plan with such strategies as a grant program and a well developed communication strategy (Bauman 1997). In South Australia, an inter-agency committee formed, but without a high profile strategic plan, grants scheme or communications strategy.

Mixed scanning

When I introduced my proposal about analysis for policy, I argued that it is both theoretically and practically possible for healthy public policy to be initiated from a concern with incremental decisions at the local level, fundamental decisions at the national/international level, or by a combination of both. This argument draws on the literature review in Chapter Three (Table 3.3) where I presented a mobilisation model of agenda-building, in which decision makers place an issue on the formal agenda with few concrete details and implementation depends on public acceptance. This description fits the mixed scanning approach, with the important difference that decision-makers do not just place an issue on the agenda then wait for public response. In addition, the mixed-scaning approach requires decision makers to participate in and fund processes that enable communities and policy actors to participate actively in policy development.

Figure 8.12 illustrates a mixed scanning approach by drawing together key elements from Figures 8.10 and 8.11 in a simplified way by assuming that steps such as the research into the public health issues, formation of policy networks, and development of policy proposals have all been completed. A further simplification is that there is little detail presented about the richness and complexity of the policy networks. Figure 8.12 illustrates the existence of a dialectical relationship between local and national, micro and macro, and between potentially conflicting values and policy objectives that characterise a *mixed scanning model* of healthy public policy development. The interaction (Note 1) between local policy actors leads to many decisions that are incremental (Note 2), but made within a bounded rationality determined by more fundamental choices made at the national level (Note 3) between starkly different policy options.

A representative range of decisions is displayed on the right hand side of the figure, suggesting that it is most likely for there to be changes in a number of related policy areas and networks thhan for there to be one major, all encompasing new policy. Policy decisions described in Note 4 are mainly within the three policy areas suggested by my theoretical model: locating is space, moving through space and relating to people in space. Policy decisions to the right of the figure are more fundamental decisions than those on the left.

On the extreme right of Figure 8.12 (Note 5) there is an example of a fundamental policy change integrating and extending the policy decisions described in Note 4.

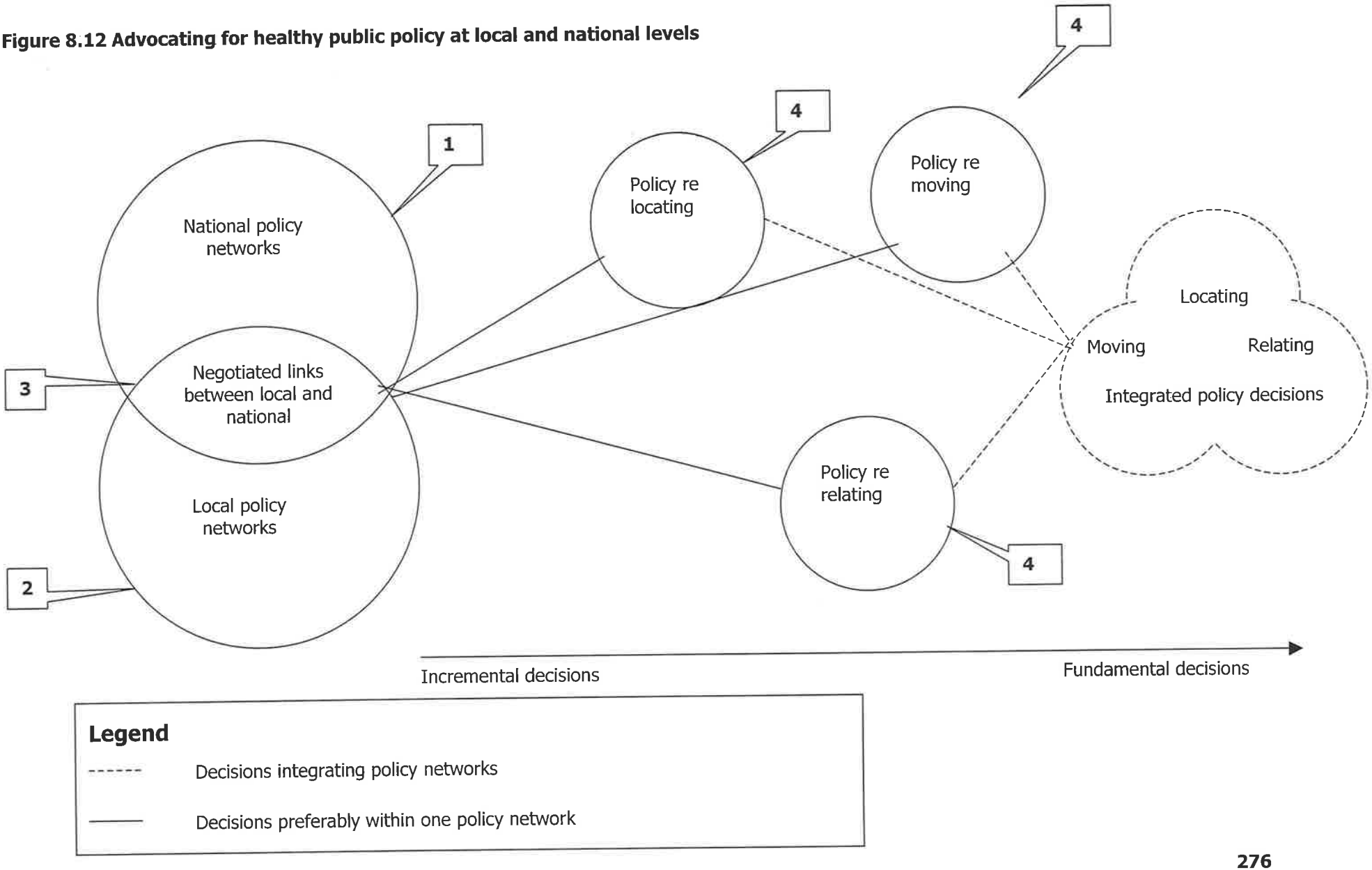
As I discussed earlier in the chapter, it is theoretically and practically possible to develop policy from the top down, from the bottom up or using a planned mixture of the two. However my research findings suggest that there are some potential pitfalls for mixed scanning which are addressed in the next section.

Potential problems for a mixed scanning approach

Hot topics and open windows of opportunity

Mixed scanning is not, however, a rational process that guarantees changes in the policy agenda. A study of the *Healthy Cities* movement in Europe argued that there is a window of opportunity for policy formulation, which is frequently small and open for only a very short time. Three streams influence whether issues reach policy agenda status: politics, problems and policies. When events in all these three streams are supportive, a window opens and advocates of policy proposals advocate for their ideas, which then become coupled with events or problems that float in the political stream (Goumans & Springett 1997).

Figure 8.12 Advocating for healthy public policy at local and national levels



This is a similar point to that made by Considine, and throughout this chapter I have argued that, when crafting the policy questions, it is preferable to look for policy proposals at both the local and national levels which become *hot* (Considine 1994) and which could stimulate more fundamental changes at the national level. Combining this argument with the experience from *Healthy Cities*, it is important for policy advocates to scan the external environment, continually looking to respond quickly when the policy window opens[42].

An example here relates to Case Studies B and E, which involve concerns about crime and personal safety. These concerns tap into a discourse of law and order and concern for victims, especially in relation to such groups as children and young people. There would be few policy keepers aiming to remove this item from the policy agenda and, with the right proposals and appropriate bridges, policy actors from health, law and law enforcement, criminology, clubs and associations, health and recreation, women's groups, aged care and policy could find shared ground which also helped them maintain their own respective turf. In this example, fundamental policy change would be a lever for faster and more substantive incremental micro changes.[43] This also demonstrates the argument that health promotion within the new public health movement should be multistrategic, with each strategy planned to interact with others to support change in the preferred direction (Kickbusch 1989). This argument gives effect to the slogan *Think globally act locally* and adds to the power of local processes the resources and moral and legal power that can derive from national perspectives and the involvement of nations in international treaties and covenants.

However it is clearly not enough for policy advocates to sit and wait for the topic to become hot and the window to open. Advocates of increased emphasis on policies to promote physical activity may be frustrated to find their advocacy falls on deaf ears, despite the weight of their evidence. Although I have argued that many of the determinants of physical activity lie outside the health sector, I also acknowledge that evidence based health benefits are potentially powerful arguments for any sector to use; let alone the health sector itself. It is thus important for policy advocates to watch for opportunities to use these evidence based

---

[42] I note with some irony the confluence of metaphors about *hot* policy proposals and the *opening of policy windows!*

[43] At the time of writing I was involved in a process of taking results from case studies in this chapter and negotiating for a macro level policy process, hosted jointly by the Australian Institute of Criminology and the Australian Sports Commission was held on 5 May 2000. The first meeting was hosted by the Australian Institute of Criminology as number 37 of their series of *Roundtables* on *Crime, sport and young people*. The next meeting was hosted by the Australian Sports Commission. The process resulted in Trends and Issues paper from the Australian Institute of Criminology designed to stimulate debate Cameron, M. and C. MacDougall (2000). Crime prevention through sport and physical activity. Canberra, Australian Institute of Criminology..

arguments in creative ways to heat up the topic of physical activity and force open the windows of opportunity.

Clashes between expert and ordinary theory

Another potential problem for mixed scanning is the opportunity for the problems that were described in Chapter Seven to arise involving differences between ordinary and expert theorising. For example, there can be a contrast between the evidence base for physical activity promoted by experts and that understood in ordinary theory. In Chapter Three I noted that the behavioural approach to physical activity promotion frequently privileges epidemiological evidence for health benefits such as the prevention of cardio-vascular disease and the reduction of all-cause mortality among those who are physically active, compared with those who are sedentary. This leads to recommendations about the dose of physical activity that fits the standard of proof required by epidemiological methods. In contrast, in Chapter Seven I proposed a number of ordinary theories such as those stating that health is more than the absence of disease, and that physical activity may be rationed because some bodies only have a fixed reservoir of capacity for physical activity.

In this example, experts who use exclusively epidemiological and evidence based methods to develop criteria for promoting minimum levels of physical activity may well disagree with those advocating on behalf of ordinary theorists who define health in different ways and believe that smaller doses of physical activity can be just as beneficial as larger doses.

Therefore, the success of the process summarised in Figure 8.12 depends on negotiations around the different theories held by actors in the networks. Differences occur not only between expert and ordinary theories as shown in Chapter Seven, but also among experts as discussed in Chapter Two. To manage these differences, I refer back to work on community participation I discussed in Chapter Seven (Putland, Baum & MacDougall 1997) where I argued that, for bureaucracies to be responsive to community participation, they at least had to respect different knowledges and theories of ordinary people, and create stable and transparent structures that are conducive to developing long term relationships with communities.

Organisational structures and relationships

To achieve the goals of developing healthy public policies there must be collaborations and negotiations between sectors around interests, values and theories. This argument leads to a consideration of which organisational structures can foster these trusting, collaborative, relationships between policy actors and within policy networks. My analysis in Chapter Five of the history of organisations interested in physical activity concluded that government policies about the role of government itself were more powerful in shaping organisational structure

and behaviour than werer specific health or other sectoral policies. These arguments lead to a consideration of the types of organisational structure that can facilitate intersectoral collaboration.

Classical organisational structures with their roots in the era of larger government may well make the collaboration and flexibility required in this project very difficult to achieve. The classical organisational structure, often drawn as a triangle or pyramid, promotes an operational focus because labour is specialised, staff are grouped into departments and attention is paid to how control, authority and responsibility are delegated within a clear command structure. The classical, triangular, structure has been criticised because it is rigid, hierarchical, inward looking and exercises power by using rewards and coercion. Within such organisations, it is difficult to achieve the organisation's goals that require co-ordination of functions because the departmental structures are like *water tight compartments* (Rakich, Longest & Darr 1992).

In contrast, contemporary approaches to management recommend a more collaborative organisation that promotes autonomy, collaboration, empowerment, diversity and change. This organisational form is characterised by loosely coupled networks and alliances and is outward looking. This has been called the *network organisation structure,* described as a small core unit that relies on a network of market relationships with a range of other organisations, enabling flexible responses to external conditions. The structure is often drawn as a series of connected circles (Limerick & Cunnington 1993) and has been recommended as an appropriate form for organisations advocating a settings approach to health promotion (Baum 1998).

I draw on contemporary approaches to organisational design and collaboration to advocate a move away from triangular organisations and closed policy systems, towards a process, mirrored at the local and national levels, involving flexible organisations establishing collaborations in policy networks that are open and that concentrate on building bridges between formerly closed systems. I argue that my analysis for healthy public policy suggests that actors with influence over resources and policy agendas can play an important role in contracting out policy development in the ways I describe in this section. To do this, I recommend further analyses of the policy processes involved in developing questions, agreeing on the rules for collaboration and for managing the different expert and ordinary theories and value bases that form the new discourse. I also imagine an iterative process, whereby a number of related questions are addressed by a number of different collaborations. The tasks of co-ordination and process management will differ from those undertaken by triangular organisations in closed policy systems. Here, the co-ordination, control and rules are developed to manage policy within the system. In the policy processes I

suggest, that effort would be redirected to managing co-ordination, control and rules between organisations and policy actors (see Note 7 on Figure 8.11).

Complementary discourses on place and space

The case studies in this chapter focus on settings in which people engage in moderate physical activity. A recurring theme *space,* as I analyse the way people locate, move through and relate to each other in space. The idea of *place* or *space* is also reflected in the literature in a number of disciplines that relate to my analyses for policy. To conclude this chapter, I introduce the way various disciplines approach space and place in order to set the scene for my final chapter's reflections and implications from my research.

In the next sections, I summarise literature from public health, tranpsort, urban planning and criminology.

A place based focus

A number of cases demonstrates a *place based focus* on social and health policy. According to this argument, by focusing on places, we become aware of structural differences between different types of places; in particular in the opportunities that are provided for people to live healthy lives (MacIntyre & Ellaway 1999). These authors use the term *opportunity structures* to describe how some environments in Glasgow, Scotland, were less inviting than others for outdoor physical recreation, including walking. Examples of core opportunity structures included the lack of local centres, including retail outlets. They cite a study of eight neighbourhoods in Britain that were undergoing urban regeneration and which associated local physical amenities and resources with social relationships and symbolic meanings. The following quotation from that study resonates with many of the reports from participants in my studies:

> *When small shops closed, the area is lost not only access to the retail outlets but also to the shopkeepers... when local public services such as banks or post offices were taken away, local residents suffered not only from poorer quality services and a greater hassle in reaching services, but felt that removal of the services had symbolic meanings and indicated lack of interest in all support for the community from local authorities and service providers. ... the study highlighted the importance of schools, but as locations for community activities, and as perceived barometer is of the state of locality...(These facilities) may facilitate regeneration of social interaction and a "feelgood" sense about a place (MacIntyre & Ellaway 1999 pp. 10-11).*

Transport policy and social space

In a number of cases participants nominated car domination as a barrier to the accessibility of local destinations. Car centred transport has been described as:

> *... a technological system with major impacts on public policy, land use, cultural patterns, social relations, community, natural resources, environmental quality, and options for the spatial mobility of individuals. (Car) centred transport is one expression of how societies subsidise an system of individualised consumption that is highly energy and resource intensive and is not viable on a global or a long-term scale. This individualized mode of consumption has an affinity with, though it is not determined by, the political economy of advanced capitalism (Freund & Martin 1993 p.1.)*

The adoption of the car as a primary mode of transport influences the construction of *social space*:

> *The concept of a social space - that space and its uses are socially constructed - has become since the late 1960s an increasingly significant factor in analyses of our civilisation. European theorists in particular...have developed formulations to explain the complex relationships between social space and class conflict, and between social space and the round of daily life. In the 1980s and 1990s, the flip side of this point - the idea that society is spatially constructed as well - has been elaborated. Thus, society's workings are now analysed as being in some measure a product of spatial arrangements. It has been the (car), more centrally than any other technology that has provided for the alterations of social life which underly the burgeoning interest in the connections between the organisation of society and of space. The transformation of urban space by the (car) and all of its accoutrements has profoundly reconfigured social life in the twentieth century (Freund & Martin 1993 p. 111).*

Such widespread dependency on the car leads to dispersion of the daily round of social life, contributing to an *exploding radius of activity in contemporary life* (Freund & Martin 1993). In the centre of this exploding radius is the corporate city, given over to high-rise buildings, parking areas and related structures. City streets are often deserted at night as commuting workers travel to their suburban homes and former central business did district functions are moved to outlying suburbs. In my study area, there is a regional mirror of the corporate city because Marion itself is the largest regional centre in Adelaide, and growing rapidly. Apart from this privately owned and fully enclosed shopping mall complex, there is no Marion Town Centre, only several district centres and groups of small shops (Wright, MacDougall, Atkinson

& Booth 1996). Similarly, sporting and community facilities are frequently neither local nor regional nor in the central business district, rendering them best reached by car.

In A number of participants reflected on past times in which the streets were less dominated by cars. These reflections, however, are not new. In 1896 a Parisian threatened to shoot the next car driver who endangered his peace and security. Le Corbusier, the prominent architect of modernism commented after walking in Paris in 1924:

> *I think back twenty years to my days as a student, the road belonged to us then; we sang in it, we argued in it, while the horse bus flowed softly by (Freund & Martin 1993 p. 11).*

Later in his life, Le Corbusier this described the street as a factory for producing traffic. These ideas were reflected in the reports of participants in my studies, who described ways in which the car has transformed social space and reconfigured social life. Participants discussed ways in which planning based around car transport organises social space and influences our built environment. The car dictates the scope of streets, the relationship between buildings, the need for large parking areas and the speed at which we experience at environment. The car dominates what once were diverse streets which were shared by pedestrians, cyclists, buses and the community.

In response to the dominance of the car, there are charters and declarations dealing with the rights of pedestrians and other vulnerable road users. Tables 8.7 and 8.8 provide two examples of charters that result from advocacy for pedestrians and cyclists. It is sobering to consider how few of these strategies have been systematically endorsed by policy-makers and placed high on the policy agenda.

Table 8.7 The Delhi declaration on the safety of the 'vulnerable road user'

(International Conference on Traffic Safety 1992)

1. The groups that are today the vulnerable road users are an important and desirable part of the entire transport system. Walking and bicycling in particular are to be encouraged and promoted by appropriate planning of the transport environment because of their low cost, negligible energy consumption, and environmental compatibility.
2. Well-designed and maintained public transport systems can reduce overall casualty rates, by encouraging low risk travel. Good urban planning reduces risk by diminishing unnecessary and inefficient journeys.
3. Inappropriate speeds by motor vehicles are a major cause of accidents, especially in urban situations. Lower speeds generally result in fewer crashes and less severe injuries, and therefore should be systematically fostered in urban areas.
4. Road environments can be designed to control speeds; to separate road users of different sizes, weights, and velocities; to reduce the probability of road users making mistakes; and to minimise injuries if a crash does occur.
5. Each element of a program to promote traffic safety - education and enforcement, changes in the road environment, and improvements in vehicle design - can make important contributions, but these elements are most effective when they are integrated into a comprehensive program appropriate for the physical, cultural, and social environment of the particular region or country.
6. There is need for improved emergency communications, patient transport, and trauma care systems.
7. Resources in less motorised countries are very limited, and therefore transport safety programs should be carefully planned and optimised. A good database is essential and the development of adequate definitions and data collection systems are vital for planning appropriate countermeasures and evaluating their effectiveness.
8. Vehicle exteriors can be designed to be less injurious to vulnerable road users. Such designs should be introduced by vehicle manufacturers and enforced through national and international regulations and by greater legal liability.

Table 8.8 The Australian Pedestrian Charter

(The Pedestrian Council of Australia 1999)

This Charter recognises that some people are unable to walk because of a disability that requires the use of a wheelchair or similar device. In this document, that distinction is set aside. All references to walking and pedestrian activity are deemed to embrace those dependent upon such mobility aids.

INTRODUCTION

This is a Charter about the simple act of walking, an activity available to almost all, taken for granted by many, yet ignored at our peril.

Sometimes we walk because we have no alternative; at other times because that is our preference.

Walking can be many things, a means of transport, a way of keeping healthy, a form of relaxation, a sport. It can be a gregarious social activity or a solitary opportunity to meditate. It varies with whim and circumstance. Commuters scurry; shoppers meander; bushwalkers trek; power-walkers stride; lovers stroll; tourists promenade; protestors march ...

But we all walk.

Walking is one of our earliest individual achievements. The first tentative steps of the toddler are the first steps towards adulthood, the first moves in our lifelong craving for independent mobility. The craving never recedes, even as age or disability take their inevitable toll. Not so long ago the entire life experience of an individual was limited by the distance he or she could walk. A trip to the next village was a trip to the edge. Today, our globe has shrunk and our village is global. But walking remains what it has always been, a fundamental and universal means of transport for us all.

The challenge which this Charter addresses has arisen because we now realise that in today's Australian cities this basic mode of transport and communication must be able to co-exist with, and complement, other modes. Yet the culture and social infrastructure associated with the private motor car has tended to dominate. Through overuse and misuse, the car, seen by many as the preferred mode of independent mobility, has become the greatest single threat to the freedom, availability and simple mobility of walking.

Table 8.8 cont

This Charter seeks to:

- create a physical, social, economic, legal and psychological context in which more Australians will be encouraged to walk more often and to walk further.
- re-assert the rights and freedoms which pedestrians once enjoyed but which are now being usurped and threatened by private motorised traffic and the infrastructure that supports it
- promote the personal, social and environmental benefits of walking as a safe, healthy, enjoyable and accessible form of transport, exercise and recreation
- encourage the planning, design and development of neighbourhoods in which safe, attractive and convenient walking conditions are provided as a fundamental right
- ensure that in the planning of our communities access to basic amenities and services is not dependent on car ownership but is always available to those on foot, bicycle, wheelchair and public transport.

CHARTER PRINCIPLES

ACCESSIBILITY

Walking is a fundamental and direct means of access to most places and to the goods, services and information available at those places.

Those creating public and private space or facilities must give priority to 'walk in' access which is attractive, safe, convenient and accessible for everyone.

All responsible agencies should respect the pedestrians' inalienable right-of-way on footpaths and recognise the importance of constructing and maintaining them for transport, health, safety, leisure and social purposes.

Access to other walkable environments for recreation, health and fitness is also important in its own right.

Design of facilities should consider the needs of the most vulnerable pedestrians, such as older people, children and those with disabilities.

Table 8.8 cont

SUSTAINABILITY AND ENVIRONMENT

Walking is the most environmentally sustainable form of transport, relying as it does on human power and having very low environmental impacts.

Unlike travel by motor vehicle, or even bus and train, walking is environmentally benign. It is quiet; it does not pollute our air or water; and it does not generate greenhouse gases. It does not consume scarce fuel resources, nor does it adversely affect the amenity or economies of our urban and rural areas.

Walking can be an ideal substitute for short car trips, including those to public transport stops. Those short trips contribute disproportionately to air pollution: the more they can be avoided, the better for us all.

HEALTH AND WELLBEING

Health is not just a state of life but a valuable community resource.

A healthy community is a walking community.

So-called 'lifestyle' diseases, such as those associated with strokes, heart disease, diabetes, elevated cholesterol levels and high blood pressure, are increasingly associated with sedentary habits at home and in the workplace. Individual and community costs are high.

For individuals, walking offers a valuable low-impact form of incidental exercise as a healthy counter to the sedentary lifestyle. It is highly accessible, available for all age groups, and is a proven method of promoting better health.

For the community, walking is the healthy substitute for car travel, bringing a reduction in air pollution and consequential benefits for those suffering from all forms of respiratory disease.

SAFETY AND PERSONAL SECURITY

A safe environment for pedestrians should also be one that stimulates and encourages walking.

Unlike the occupants of motor vehicles, pedestrians do not in general endanger themselves or others. Pedestrian facilities must be designed to maximise pedestrian safety, but design solutions that discourage walking are unacceptable.

Table 8.8 cont

It is also unacceptable to ignore pedestrian safety needs whilst favouring motorised traffic flows. Facilities designed to improve the safety and convenience of cyclists should not compromise pedestrian safety or convenience.

Places for walking should be designed to maximise personal security with good sightlines and better lighting, scaled to pedestrian needs. 'Safety in numbers' will be achieved by encouraging more street activity and the natural surveillance of pedestrian space by other walkers and by neighbours.

EQUITY

Walking is the only transport mode available to almost everybody at any time and without charge.

Not everyone can, or chooses to, own a motor vehicle. Nor is access to a car or public transport always available when needed.

Vulnerable groups such as children, older people, those with disabilities and the disadvantaged are more likely to depend on a combination of walking and public transport. Provision that favours the creation of walkable communities will not only benefit these groups but also the community at large.

Rights must be matched by responsibilities. All road users must be prepared to abide by prevailing laws and regulations but these must reflect the particular needs and vulnerability of pedestrians.

IMPLEMENTING THE CHARTER

Urban environments can be purposefully created to support and encourage walking. Appropriate strategies to achieve this will involve all authorities with responsibility for the funding, design, provision, maintenance and monitoring of these environments.

DEVELOPING ALLIANCES/PARTNERSHIPS

Key stakeholders in the fields of transport, environment, urban planning, recreation and health should build and use consultative alliances to obtain commitment at local, state and federal levels to improve facilities for walking.

Table 8.8 cont

Stakeholders should recognise and promote the cumulative benefits that can flow from a coordinated whole-of-government, public/private, approach to the safety, access, amenity, health and economic aspects of pedestrian improvements.
Each State and Territory needs a champion at the decision-maker level who will play a key role in promoting walking.
Governments and private agencies should help pedestrian advocacy groups take an increased role in the overview of policy and strategy implementation at a national and state level.
Pedestrian advocacy groups should develop alliances with peak cycling and public transport users groups and with representatives of the more vulnerable categories of pedestrian, such as those with disabilities and older persons.
PLANNING
Federal, state, territory and local governments should agree and adopt targets for walking that help to develop sustainable communities and neighbourhoods.
Federal, state, territory and local governments should develop plans to improve the public realm for walking in accordance with adopted targets, including infrastructure funding.
Federal and state agencies should collaborate in the development, continual review, dissemination and promotion of model design guidelines to assist designers/planners ensure that walking is given pre-eminent consideration in the development of private spaces, public open space, neighbourhoods and supporting integrated transport systems.
Relevant agencies should include regular walking as a major component in health promotion/disease prevention strategies.
Federal, state, territory and local governments should identify, nurture and protect those attributes that encourage walking, such as community programs, urban and landscape character, visual and recreational amenity and activity nodes that provide attractive destinations

Table 8.8 cont

ACTION - RESEARCH - MONITORING

All governments should review current regulatory and funding frameworks that impact on their ability to improve the amenity, convenience and safety of pedestrians.

Those agencies implementing projects and programs should monitor pedestrian activity (before, during, after) and report widely on the results and benefits.

State and local governments should coordinate monitoring of the general level of walking activity in support of research and measures to increase that activity.

Governments at all levels should encourage and support relevant agencies to undertake and publicise research into health, recreation, safety, amenity and environmental issues concerning walking (including the impacts of motorised transport) and the economic, social and health benefits of walking.

INSTITUTIONAL - FUNDING

Commitments should be made on a whole-of-government basis by federal, state, territory, and local governments through key implementing agencies (and those directly affected, such as health and environment) to:

- develop policies to support greater pedestrian activity for transport and recreation
- endorse targets for greater pedestrian activity in their areas
- require implementing agencies obtaining state/federal funding for roads, transport projects etc to undertake pedestrian improvement audits and undertake specific improvement measures as a part of their responsibilities
- report bi-annually on the state of the pedestrian environment and recommend improvement.
- develop best practice provisions and approaches to the improvement of pedestrian access, safety and amenity.

Table 8.8 cont

COMMUNICATION - EDUCATION - MOTIVATION

Stakeholders should encourage the development and implementation of behavioural change programs targeting the increase in walking and the promotion of more considerate behaviour by all road users.

Governments and private agencies should encourage public awareness campaigns that highlight both the benefits of walking and the benefits of providing quality facilities. These should also highlight the individual actions that can be taken to alleviate the adverse environmental and health effects of motorised transport.

Governments and private agencies should disseminate information on the benefits of walking both as a healthy recreational activity and as an efficient and sustainable mode of transport, particularly for short trips.

Governments and responsible authorities should create and fund programs for signage, maps and publications to inform the public of the availability of pedestrian routes and networks.

Responsible authorities should report on and promote the use of best practice programs that have proved to be effective in increasing walking.

DECLARATION

The delegates to the First National Pedestrian Summit held in Sydney, Australia, in September 1999, as participants of the Australian Pedestrian Charter, commend this Charter for adoption and incorporation in the policies and practices of all relevant agencies.

The delegates, in supporting this Charter, do not necessarily represent the views of their agencies or organisations.

The Australian Pedestrian Charter is the product of the National Pedestrian Summit held in Sydney on 23 & 24 September 1999.

Urban planning and space

Over many years, authors have bemoaned the fate of suburbs as they have become dominated by the needs of cars. Mumford's (1961) classic book on cities argues that the forces that pumped highways, motor cars and real estate developments into the open country produced a "formless urban exudation" (p.575) . As soon as the motor car became common, the pedestrian scale of the suburb disappeared, and instead of being a neighbourhood unit it became a diffuse, low density mass. He also argues that:

The suburb needed its very smallness, as it needed its rural background, to achieve its own kind of semi-rural perfection. Once that limit became over-passed, the suburb ceased to be a refuge from the city and became part of the inescapable metropolis (Mumford 1961 p. 545).

Mumford is critical of city planners and municipal officials. He argued that, when suburbs were created in the nineteenth century in Britain and the United States, they were linked by railways which led to a natural limit to the spread of any community. Houses in each community had to be in walking distance from the railway station. This led to calls for green belts between suburbs to prevent towns from growing into each other. That these ideas were not followed up by city planners and municipal officials was "... a disgrace to these professions and a blot on our common civic intelligence" (Mumford 1961 p. 574).

The discourse of a contemporary approach to urban planning, the *new urbanism*, resonates with that of the new public health's settings approach; in particular the Healthy Cities movement that I introduced in Chapter Two. Table 8.9 summarises the description of the *new urbanism* from its American advocacy body, the *Congress for the New Urbanism*. New urbanism grew in North America in the late 1980s as a new approach to the creation and revitalization of communities and seeks to reintegrate the components of modern life - housing, workplace, shopping and recreation - into compact, pedestrian-friendly, mixed-use neighborhoods linked by transit and set in a larger regional open space framework. The new urbanism presents itself as an alternative to suburban sprawl.

Table 8.9 The new urbanism

Table summarised from http://www.cnu.org/newurbanism.html accessed 8.2.99)

New Urbanism basics
The major principles of New Urbanism are:
All development should be in the form of compact, walkable neighborhoods and/or districts. Such places should have clearly defined centers and edges. The center should include a public space - such as a square, green or an important street intersection - and public buildings - such a library, church or community center, a transit stop and retail businesses.
Neighborhoods and districts should be compact (typically no more than one-quarter mile from center to edge) and detailed to encourage pedestrian activity without excluding automobiles altogether. Streets should be laid out as an interconnected network (usually in a grid or modified grid pattern), forming coherent blocks where building entrances front the street rather than parking lots. Public transit should connect neighbourhoods to each other, and the surrounding region.
A diverse mix of activities (residences, shops, schools, workplaces and parks, etc.) should occur in proximity. Also, a wide spectrum of housing options should enable people of a broad range of incomes, ages, and family types to live within a single neighbourhood/district. Large developments featuring a single use or serving a single market segment should be avoided.
Civic buildings, such as such as government offices, churches and libraries, should be sited in prominent locations. Open spaces, such as parks, playgrounds, squares, and greenbelts should be provided in convenient locations throughout a neighborhood.

Criminology and space

Urban planning, social spaces and community development have been linked with crime prevention (White 1999). It has been argued that:

> *One test for a good city lies in the capacity to walk the streets in safety - day or night, rich or poor, male or female, black or white, old or young. But another test lies in the capacity for all its citizens to gain access to the overwhelming vitality, creativity and diversity of urban life. The task is not to choose between but rather to reconcile, these imperatives. It is one of understanding, managing and engaging with safety and danger in a creative and civilised manner. The struggle against the privatisation and tranquilisation of public space will be a long one. But the stakes for future generations are high and we will all be judged on the kind of city we bequeath them (Dodey 2000 p. 13).*

A recent Australian study notes that the predominantly quantitative methods that have been used to study lay people's fear of crime have documented patterns of responses across large populations. However, research has frequently failed to account for why people feel afraid and has not addressed in much detail the temporal, spatial and socio-cultural contexts in which fear is produced. The study used qualitative methodologies based on interviews and focus group discussions to identify patterns in that the ways people construct their understanding of fear and danger and the meanings they give to their experiences and understandings. The fieldwork took place in four sites in New South Wales and Tasmania and included the largest city in Australia, a small rural town and a large industrial city. There were 148 participants, comprising 65 interviewees and 83 focus group participants (Lupton 1999).

The vast majority of participants had no major sense of fear about walking in their neighbourhood during the day. In contrast, only 41% often or sometimes walked in the neighbourhood at night. More participants felt fearful about walking at night, with 41% saying that they would feel rather or very unsafe doing so.The factors that affect conceptions of safety and danger include the characteristics of places and the characteristics of people using the places or spaces. Certain streets or other places (such as areas outside pubs) were defined as *risky* based on how well lit up by our night, how open they appeared to be, how well one knows the people who live there, how many others use the space and whether these users were defined as threatening. The participants most often expressed fear about young men hanging around in public spaces.

In contrast, 99% of people said that they felt very or fairly safe from crime in their own home during the day, and 95% at night. They felt more control over the risk of crime because they could secure their home against invasion and they could regulate the entry of others from outside.

Participants were asked to say what they thought was the least safe place in Australia in terms of risk of crime to people and to explain the answer. In their answers, they often constructed their notion of danger from images from news and television drama, or knowledge of the experience of others, rather than direct personal experience. The nomination of the most dangerous areas was directly associated with notions developed through news programs or television drama.

Places which were described as unsafe included inner-city areas, dark alleys in towns and cities, parks at night, empty city streets, and areas around night clubs and pubs. Train stations and bus stops were described as particularly unsafe places.

The study concluded that participants continually identified the figure of the *unpredictable stranger* as the locus of their fear. The unpredictable stranger is a person from outside one's known circle of family, friends and neighbours whom one usually encounters and public places. Unpredictable strangers are invariably identified as male, for example:

- as other men in gangs by young men;
- as all strange men in public places by women;
- as drunken men outside pubs by older men.

The study draws on theory which argues that the unpredictable stranger, who poses a threat of crime to oneself, tends to act as a target and repository of generalised and specific worries fears and anxieties. These include concerns about the nature of modern life and society, the breakdown of community feeling, the loss of certainty about life and social relations and the growing instability in people's interactions with each other. These fears are projected on to unpredictable strangers who move around the landscapes of cities which have become conceptualised as places of this of danger, disorder, alienation, anger and social decay. According to this argument, there is an inextricable link between notions of the danger of *space* and *place* and understandings about the type of people who inhabit such places (Lupton 1999).

Concluding comments on place and space

My adoption of a settings approach has led me to explore policy proposals and disciplines which add a social and spatial dimension to the promotion of physical activity. There are compellingly similar ideas running through the previous section's analysis of place and space, for example:

- the interaction between the way space is designed and the way people feel comfortable or dangerous in space;
- the proposition that people feel unsafe in space because of generalised perceptions that there is a breakdown in social relations;

- a range of community problems are best examined in their spatial and cultural contexts.

These ideas support the argument to broaden the range of factors that we take into account when we seek to promote moderate physical activity. Indeed, a recent epidemiological study of a random sample of 2761 Americans over the age of 65 related 13 year survival to participation in social, productive and physical activities. All three types of activities were independently associated with survival. The study concluded that, in addition to increased cardiopulmonary fitness, physical activity may confer survival benefits through psychosocial pathways (Glass, Leon, Marottoli & Berkman 1999).

On the basis of this evidence and these ideas, I argue that while we should accept that there are clear physiological and health benefits of physical activity, we should also accept that these reasons are not powerful enough by themselves to persuade people to engage in more physical activity. Instead, we should connect physical activity promotion with broader debates about social capital, crime prevention, location and health. These debates in turn are likely to be strongly connected to those economic and cultural influences on urban and transport planning which so dramatically affect the nature of space and associated social relations.

One argument is that such a broadening of factors may make physical activity promotion just too difficult, as in the critique of the web model of health from Chapter Two. A counter, argument, however is that by broadening the factors we can make use of powerful allies and arguments to reshape physical and social space. Put simply, an argument to reshape cities and transport so people can take a nightly half-hour walk to benefit their health is not likely to be compelling by itself. However, the argument can be strengthened by presenting specific case studies which add to the health gain the benefits of crime prevention, reduced pedestrian and cyclist injury, better life experiences for children and ecological benefit.

Chapter 9
Reflections, conclusions and implications

In this final chapter I summarise key findings from my research into physical activity and reflect on their relevance to research, theory and the discourses of health promotion, intersectoral action and public policy. At the start of the thesis I set myself the task of exploring the following three broad questions on the basis of a study in South Australia. The first was:

> *What are the physical activity gaps between social groups and how does this gap relate to health and the other benefits of physical activity?*

My first study was an epidemiological investigation of the results of a cross-sectional community health survey in Adelaide, South Australia, which confirmed the associations reported in other Australian research between lower levels of physical activity and demographic factors. In addition, however, I was able to conclude that there were also associations between lower levels of physical activity and lower self reported health status, low social connections and low satisfaction levels with community facilities. On the basis of these findings, I designed follow up, qualitative studies, to explore the relationships between environments and physical activity and to investigate the ways in which health status, especially mobility problems, were related to levels of physical activity.

The second question was:

> *What are the constraints on choices and what needs to be done to make the choices of people to increase moderate physical activity easier? How do ordinary people theorise about constraints on choices?*

My first analysis of the qualitative studies showed the way participants in the research used lay or ordinary theories when they spoke about health and physical activity. These theories either were consistent, or different from, experts' theories, providing real challenges for health promotion and policy development. Further qualitative analysis demonstrated the links between levels of physical activity and environmental characteristics involving where people live, how they move around and how they relate to each other. Using a settings approach, I showed how features of the natural built environment, community facilities, transport systems and social relationships either made the choice to build moderate physical activity into the day easier, or more difficult.

The third question was:

> *What is the role of the social environment in relation to moderate physical activity choices and what needs to be done to ensure supportive social environments? How do ordinary people theorise about supportive social environments?*

My document analysis of the history of relevant Australian policy showed how physical activity policies frequently became the province of different sectors of society at different times. More recent case studies of organisations demonstrated the way policies about the way governments organise their services can lead to more fundamental changes than can more specific policies about health or education.

These were important findings which I took into account when exploring an analysis for policy with the aim of proposing a range of policies to enable the social environment (for example the structures and institutions of society) to support increased participation in moderate physical activity. Moving towards these policies involves collaboration between the public health sector and others such as urban planning, transport, criminology, education, recreation and sport. I concluded my analysis by developing a model that uses a mixed scanning approach that distinguishes between policy processes at the local and national levels and proposes how to place polices designed to increase moderate physical activity higher on the policy agendas of the relevant sectors.

Implications for models of physical activity promotion

In Chapter Two, I introduced three approaches to health promotion (Baum 1998; Labonte 1992) and discussed their application to physical activity. I concentrated on the implications of different definitions of health and physical activity for my research. In this section I revisit these three approaches and use the findings of my research to elaborate on the three aspects of the models that I did not discuss in Chapter Two, namely the focus of intervention, main strategies and success criteria. Table 9.1 summarises the way I have used the three models of physical activity promotion in my research. In my research, there were numerous examples of each approach to physical activity promotion, including those (in the Arthritis Focus Groups) where it was clear that each approach was operating simultaneously.

Table 9.1 Three approaches to promoting physical activity

	Medical	Behavioural	Socio-environmental
Focus (Note 2)	Individuals who wish to enhance particular aspects of performance in relation to recovery from acute illness (eg cardiovascular rehabilitation) or with chronic diseases (eg arthritis)	Groups in the population with risks factors such as for cardiovascular disease	The way settings affect the choice to participate in moderate physical activity as part of a broader purpose of increasing control over determinants of health
Definition of health (Note 1)	Clockwork model	Clockwork model incorporating ordinary people's perspectives	Combination of clockwork, ordinary people's and critical perspectives
How physical activity is defined (Note 1)	Procedure	Prescription	Pastiche
Main strategies (Note 2)	Expert controlled	Individually mediated	Healthy public policy, intersectoral action to change settings, mixture of expert input and community participation
Success criteria (Note 2)	Adherence to an expert-designed specific physical activity program Better recovery from or management of an illness or disease Decreased morbidity and mortality from specific causes.	Involvement in design and monitoring of a behaviour change program Decrease in risk factors associated with low levels of physical activity. Significant changes in physical activity that is maintained over time and monitored by individuals	Changes in settings and communities that are conducive to physical activity. Changes in policies in a number of sectors Small changes in physical activity over a long period in whole populations Increased control by communities over determinants of health and illness

Note 1: discussed in Chapter Two; Note 2: discussed in this Chapter

Focus of intervention

In my research there are examples of the way the *medical approach* to promoting physical activity focuses on individuals who wish to enhance particular aspects of their performance to assist recovery from acute illness or improve management of chronic disease. Participants who were attending a rehabilitation group after heart surgery learned how to perform particular exercises, under professional supervision, as part of their recovery from surgery and preparation to be discharged from hospital. In the arthritis group, participants managed their chronic condition by performing relaxation and flexibility exercises in order to maintain joint mobility.

The focus of the *behavioural approach* on groups in the population with identified risk factors was evident in many of the focus groups when participants displayed very clear knowledge of risk factors such as exercise, smoking, weight and cholesterol and were aware of strategies to modify these risk factors.

There are also numerous examples of the *socio-environmental approach's* focus on the way settings and communities influence the individual's choice to participate in moderate physical activity as part of a broader purpose of increasing control over determinants of health. Many participants related specific features of the built and natural environment to difficulties in increasing levels of physical activity. Participants also noted a number of strategies to overcome these difficulties, including taking collective action and seeking the involvement of local government.

Main strategies used in each approach

In the *medical approach*, the main strategies were specific short-term exercises conducted under expert supervision. For the group recovering from heart surgery, this involved supervised walking, stretching and stair climbing. For the arthritis group, this involved relaxation and flexibility exercises as designed by professionals.

Consistent with the *behavioural approach,* participants reported strategies such as going to the gym, walking briskly or jogging, and modifying diet. As I discussed in Chapter Seven, many participants were aware not only of the message to change lifestyles, but also of specific strategies.

Strategies consistent with the *socio-environmental approach* included participants' recommendations that local government coordinate action to ensure that footpaths were safe for walking, to seek to maintain the existence and aesthetics of parks and open space and to undertake measures to reduce the dominance of motor cars. Participants also discussed the need for communities to take action to retain facilities that are relevant over the lifespan.

Success criteria used in each approach

In the *medical approach*, success criteria include adherence to exercise programs leading to discharge from hospital. Longer-term success criteria would include rapid recovery from heart surgery. For participants with chronic conditions such as arthritis, success criteria would include long-term maintenance of specific exercises leading to improved management of the condition.

In the *behavioural approach*, success criteria include the ability of the participants to understand health promotion messages about risk factors, and to help design and maintain involvement in a physical activity program. Longer-term success criteria would include decreases in risk factors, which would eventually lead to reductions in morbidity and mortality from specific causes.

In the *socio- environmental approach*, success criteria include those from the medical and behavioural approaches. In addition, specific criteria would include changes in settings and communities that remove barriers to physical activity, supported by policy changes in a number of sectors. These changes would lead to small changes in physical activity over a long period at the population level and then a broader sense of control by communities over the various determinants of health and illness.

Reflections on research

The questions in the quantitative study

The questions that measured physical activity, while current at the time the community health survey in Study 1 was designed in 1989 (Baum & Abbott 1989), focused predominantly on leisure time physical activity and did not measure the range of activities which more contemporary measures include (Armstrong 2000). Nevertheless, the questions were comparable with Australian data sets at the time (Bauman 1987; Bauman, Owen & Rushworth 1990; Bauman & Owen 1991; Owen & Bauman 1992). Future research could include more current approaches to measuring physical activity. In particular, it may be that questions about leisure time physical activity underestimate the daily activities of women. For example, when walking is included as a measure of physical activity, gender differences are reduced. Further, there are studies being conducted at the moment exploring the contribution of activities of daily living to physical activity.

Designing surveys and selecting factors in quantitative methods

For Study 1 I negotiated access to the results of a community health survey which, while designed from a socio-environmental approach, included the then standard physical activity questions (Baum and Abbott 1989;Kalucy, 1989). The existence of this survey enabled me to conduct analyses that would otherwise have required both substantial resources and a significant departure from the approach of contemporary surveys of physical activity. Contemporary surveys reflected more of a behavioural approach[44], comprising many questions about demography, barriers to individuals participating in physical activity and the psychological construct *stages of change*. However, there were fewer questions on social interaction and connections with the environment (Department of the Arts Sport the Environment and Territories 1992).

For researchers who seek to understand physical activity using an ecological, or socio-environmental approach, there are two implications:

1. It may help researchers to conduct more frequent studies in physical activity if they pool their resources when seeking funds for large-scale surveys. One recent example of this is the *South Australian Physical Activity Survey* (South Australia Department of Human Services 1999). For this survey, representatives of a number of projects and interests were invited to participate in design and share in the use of the results. This process enabled researchers to include a small number of questions in a broader survey that they would have been unlikely to be able to organise as individuals.

2. An instrument such as the *South Australian Physical Activity Survey* cannot, however, guarantee the broad range of questions that assist researchers to take a socio-environmental approach to physical activity. We also know that the distribution of physical inactivity reflects broader social and economic inequalities and is similar to the distribution of other health problems and risk factors. That is why a number of Australian researchers have been considering ecological and environmental influences on physical activity, calling for the involvement of local government, urban planners and transport authorities (Bauman, Smith, Stoker, Bellew & Booth 1999). It would thus make sense to consider replacing or supplementing multiple epidemiological surveys into particular phenomena with fewer, more comprehensive surveys. This would enable researchers to collect standard personal and demographic factors efficiently, while enhancing their capacity to explore associations between demographic factors, health indicators and broader social factors. An example of such a survey is the current proposal for the

[44] See Table 2.1 in Chapter Two for a summary of the most common factors included in surveys reflecting a behavioural approach.

Australian Bureau of Statistics to include questions on leisure time physical activity to enable researchers to explore linkages between physical activity and other General Social Survey Questions (National Centre for Culture and Recreation Statistics 2000).

Assessing qualitative research

According to Baum (1998) factors that promote the rigour of qualitative research include researcher credibility and the philosophical orientation underpinning the research, namely triangulation, transferability and confirmability. In this section, I reflect on the rigour of the qualitative research component of the methodology. Many of my claims for rigour derive from the fact that most of the research was conducted in a team, which provided different perspectives and sources of expertise. Another reason for my claim for rigour is that I used a recognised conceptual framework to guide the analysis of data and provide a benchmark (Ritchie & Spencer 1994).

Credibility

The qualitative studies received funding from peer reviewed research grant schemes and were approved by institutional ethics committees. All members of the research team had experience in their discipline area and there was a stated commitment to the principles of the Ottawa Charter in the research design.

Triangulation

Triangulation also enhances credibility. We had numerous sources of data (documents, interviews, focus groups, observations) and the studies involved researchers from different disciplines and theoretical perspectives. Therefore, we could view the data from such perspectives as public health, health promotion, anthropology, urban design and local government. In the process, we found many ideas from different disciplines and perspectives that were similar in essence, although characterised by a different context and language.

Transferability

Qualitative research is transferable if research reports provide sufficient detail for other researchers to make judgements about transferability (Baum 1998). Study 3 was largely replicated in another part of Australia from the description in the research report (Mark, Franco & Miners 1998).

Study 3 was cited in a study funded by the Ontario Ministry of Health to identify best practices having potential for use in community heart health initiatives in Ontario (Cameron, Walker & Jolin 1998). There were four categories; best practices, promising practices, practices to be tracked and other practices. Best practices were those with positive outcomes using "sophisticated research designs" - in this case four randomised control trials and one

pre-post survey with a control. Study 3 was evaluated as a promising practice, defined as plausible and practical, having not been evaluated or evaluated using weaker designs. The report had this to say about generalisability (p. 69)

> *Much of the value of this project stems from the high degree of localisation. Thus while the ...report (Wright, MacDougall, Atkinson & Booth 1996) has specific implications for the City of Marion and is not generalisable to Ontario communities, the description of how to conduct similar community consultation and advocacy is useful and generalisable. However, it is interesting to note that a similar project was carried out by another group in Australia in a more rural setting and they independently identified the same issues. It may be that there are a common set of facilitators and barriers to daily physical activity that exist in a variety of communities. This practice focuses on physical activity but the issues raised and the resulting activity may have broader implications, and contribute to making the community a better place to live.*

Dependability/reliability and confirmability

These features refer to whether the research is likely to be consistent over time, researchers and methods and whether it is confirmed by a source outside the research team (Baum 1998). The qualitative studies involved feedback from the participants in the research and from a range of interest groups. The conclusion from the previous section suggested some evidence of consistency over researchers.

Reflections on seeking and analysing ordinary theory

When I started to examine the tapes and transcripts for evidence of ordinary theories I gave a seminar in my university department and presented my emerging descriptions of such theories (MacDougall 1996). Some of the feedback that I noted in my journal at the time suggested that I was ignoring the sorts of theories that were similar to, or directly informed by, professional theories. Further, by doing this, I risked setting up an adversarial framework whereby there was either an ordinary or a professional theory and that the former was more valuable than the latter for practitioners of the new public health. In response to this feedback, I went back to the data and was able to find substantial evidence of theorising that was consonant with, or informed by, the professional discourses. This is particularly relevant in the area of physical activity, which is characterised by extensive discussion in the media and in health education campaigns.

In focus groups I opted to let the discussion flow and use prompts and paraphrases to expand and explore emerging discussions reflecting participants' theories. My rationale was to take maximum advantage of the group dynamics that characterise focus groups and avoid

converting the focus group into a group interview containing serial questions. On reflection, I believe this was a defensible decision because this is formative research and it is appropriate to explore without posing specific questions. In many of the dialogues quoted in Chapter Seven, the first statement by a participant or response to my paraphrase mentioned one particular aspect of the relationship between physical activity and health. However, this was soon followed by discussion in which people disagreed, added specific points, or suggested more general than specific benefits. This detail would have been lost had the focus groups been conducted more as group interviews. This observation also suggests caution when considering the use of written or telephone surveys to explore ordinary theories for two reasons. The first is that the initial answer was often modified by group discussion. The second is that agreement with a proposal (which would be a question in a survey) was not a complete answer.

To achieve this, it would be necessary to devote more time in focus groups to the issue of ordinary theory – remembering that in the current study ordinary theory was just one of the topics of research. For future research, I would recommend more exploration, perhaps using in-depth interviews to focus specifically on ordinary theories. It may also be interesting to explore the way experts theorise in much the same way. A further option would involve an action research process including focus groups with sensitively selected mixes of ordinary and expert participants to debate the nature and consequences of similarities and differences in theorising. Such research could study in more detail the reciprocal relationships between ordinary and expert theorising and how each is informed by the other.

I note also that the research method used here yielded significantly more evidence of ordinary theorising by older people in the sample. Future research could explore how best to explore ordinary theories with younger people.

Designing complementary studies

Another reflection on Study 1 is that it would have been helpful to have been able to plan complementary qualitative and quantitative studies as the first data were being analysed and to obtain consent to return to individuals or groups to explore emergent findings in more detail. Instead, I followed up Study 1 with qualitative research with groups in the same geographical area identified in the community health survey as having experience of low levels of physical activity. [45] It is now an accepted practice in research adopting a socio-environmental approach to health simultaneously to design a survey and qualitative research,

---

[45] This is what my late colleague Crotty (1998) means when he describes Lévi-Strauss's depiction of the researcher as *bricoleur*. A *bricoleur* is someone who makes something new out of a range of materials that had previously produced something different. The *bricoleur*, a makeshift artisan, uses bits and pieces that once were part of a certain whole but now reconceives them as part of a new whole

and to identify the population for the qualitative component during the survey (Baum, Bush, Modra, Murray, Cox, Alexander & Potter 2000). Such a design could have been helpful, for example, in elaborating on the findings about gender, carers and physical activity. It could also help to connect research to action as further exploration and publicity about research leads to opportunities for action, as in the example of the bike path from Study 3.

Reflections on policy action: pragmatic alliances or grand theory?

I have argued that a pitfall of applying a web model to physical activity promotion is that the argument that health is connected to virtually every sector of society can lead to paralysis of policy and action on the grounds that any intervention is just too hard and complex. There can also be paralysis if the adoption of a new public health perspective suggests a dichotomy between a *micro* (individual action) and *macro* (structural action) view of health (and the rider that it is unacceptable to focus on individual action and only acceptable to advocate for structural change). Instead of succumbing to paralysis of policy and action, I adopted a *settings approach* which takes a dialectical view of the relationship between the micro and the macro. By arguing that the *settings approach* brings together individual and structural agency, I set the scene for research which explores the way environments do and do not support physical activity.

However, while the settings approach does pave the way for action rather than paralysis, without a critical analysis it can also lead to another potential problem with the new public health which I identified in Chapter Two, that of *healthism*. *Healthism* operates on the questionable assumption that everyone should work and live to maximise their health (Metcalfe 1993) and can recast health as a moral value (Peterson 1994).

> *If health becomes the analytical lens through which all social issues are seen, it may dilute and obfuscate not only health related efforts but other social and political efforts as well (Robertson & Minkler 1994 p.299).*

Healthism can also occur if researchers uncritically assert that physical activity is a means to health, which in turn is an end in itself. Throughout my analysis of quantitative and qualitative data, I have argued that sometimes physical activity is a means for improved health which is a means for increased participation in society. But other times, I have argued that improved health status is a means for physical activity which is in turn a means for the well-being that arises from social connectedness. These arguments clearly suggest that improved health status alone is but one of the benefits of increased participation in moderate

physical activity, and that health benefits may be outweighed by the broader benefits of well-being and participation in society.

When I translated these general arguments into analyses for policy to enhance physical activity in Chapter Eight, I used case studies to illustrate the range and roles of policy actors at both local and national levels. I described the policy agendas in terms of locating in space, moving through space and relating to people in space. I deliberately did not argue that this analysis should be used to change the agendas of the sectors involved so they concentrated on health outcomes. Rather, I argued that new policies are more likely to be placed high on the respective agendas if they bring real benefits to the actors in the networks in each sector, while at the same time making it easier for people to choose to participate in moderate physical activity. Thus, there would be tangible benefits in their own right for where people are located, how they move and how they relate to each other. The difference is that health and physical activity are considered in the process.[46]

Yet, that is not always the emphasis I observe in the discourse of practitioners and in the language of the academic literature. For example, I frequently participate in presentations where the discourse describes any one of a number of health problems, before arguing that each health problem should be considered in a broader context. The discourse states that the health problem is inextricably linked to other sectors, and so to make real changes in that health problem it is necessary to influence public policies in a range of sectors. The discourse frequently moves seamlessly between defining health as *the absence of that particular problem* and as *a general sense of well-being*. These discourses I have observed are consistent with the language of seminal papers in the health promotion literature. For example, in the 1980s Nancy Milio was a frequent visitor to Australia as a contributor to and commentator on the development of healthy public policy. In a frequently quoted paper, she notes that a vast array of public policies have great potential for *health promotion* and that this potential ought to be developed. She cites the growing evidence that health and illness are embedded in the household, work site, school, community and larger environments in which we live. She described a number of strategies to create healthy public policy, and concludes that:

> *The substantive dimension of a healthy public policy, namely, its effect on peoples health, requires attention both to direct population measures as well as the changes in the environments and living conditions that nurture health, including changes in access to policy-making processes (Milio 1988 p.272).*

---

[46] From a discussion about this issue with Cheryl Wright from the National Heart Foundation and Rick Atkinson from the University of South Australia the slogan *PS Its Healthy* emerged.

My argument here is that the discourse of practitioners and the language of the academic literature can frequently be read as *healthist* because they place either a health problem or improved health status at the centre of all efforts to work with sectors and to develop public policies. Based on my analyses for policy, I present the counter argument that, in order to develop policies to increase participation on physical activity, we should engage with other sectors and ask the policy actors not "*what can you do for the health sector?*" but "*what can we both do for your sector which will also have a benefit for the health sector?*" We may also ask "*what can we do in the health sector which will also have a benefit for your sector.*"[47]

There are at least two ways to take these ideas forward, by forming opportunistic *pragmatic* alliances, or seeking to develop more of a *grand theory* to inform policy and practice.

Pragmatic alliances

I ended Chapter Eight with descriptions of the way different disciplines conceptualise the notion of space. I noted that while they were essentially presenting similar points, their language and discourse differed markedly. Therefore the *pragmatic* way forward is for policy makers to become conversant with the language and discourse of sectors with whom they collaborate and to negotiate either common or complementary languages. For example, public health advocates would become conversant with the language of urban designers and would either agree on common terms, or simultaneously use the languages of public health and urban design. Alternatively, actors may agree to use public health language in submissions to public health bodies, and urban design language in submissions to urban design bodies. The pragmatic aspect of policy development requires the actors in the network develop sufficient trust to agree whether the public health or the urban design policy window is open and then to negotiate a strategy and language accordingly.

There are certainly advantages of the pragmatic approach, especially given the centrality of *contracting out* to the new public management that is espoused by current Australian governments.[48] Pragmatists would seek to maximise the opportunity to approach a health issue such as physical activity by tailoring their advocacy to the issues which are hot and the policy windows which are open.[49] Once pragmatists have selected the approach they feel is most likely to help them achieve a place for their proposals on the policy agenda, they can engage actors from other sectors and policy networks to enhance their claims.

---

[47] While these questions refer to the health sector, they assume that there will be benefits for the health of the population that accrue from increased participation in physical activity.

[48] This is discussed in Chapter Five.

[49] To use the mixed metaphor from Chapter Eight!

There are some disadvantages to the pragmatic approach. The first is that it does nothing to reorient a health-related system that concentrates mainly on health problems that can be defined precisely enough to describe in a tender and contract out.[50] As a result, excessive pragmatism reinforces, without challenge, fragmentation of the policy system and leads to competition for resources between actor networks with essentially similar goals. There are also problems for a mixed scanning approach to policy because over-emphasis on pragmatism will privilege proposals for incremental decisions and systematically avoid proposals requiring fundamental decisions. Further, pragmatic solutions at the local level will not always coincide with pragmatic solutions at the national level.

From the results of my analysis in Chapter Seven, however, there is a more fundamental line of critique of the pragmatic approach. I argue that if physical activity promotion is to be effective it must involve community participation. To enhance community participation, it is essential for policy systems to respect the language of communities, and to create the transparent and stable organisational structures that are essential for long term partnerships with communities. If anything, an extension of the pragmatic approach could further exacerbate the problems communities have experienced when attempting to engage with policy systems. This is because one result of pragmatists redefining their language and moving between policy sectors is an array of short-term structures that may be impenetrable to communities, therefore reducing the chances of communities forming long-term relationships with transient structures.[51]

Grand theory

Another way forward is to argue for a *grand theory w*hich would then inform policy about physical activity and the organisational structures required to translate policy into practice. Instead of seeking to negotiate common or complementary language, grand theorists would seek to break down the barriers between disciplines. They would argue that barriers between disciplines are artificial, have been erected as a by-product of professional specialisation over the 20th-century and inhibit the capability of professionals and different disciplines to work together. Specialisation leads to the proliferation of specialised compartments within bureaucracies and to policy networks that develop their own rules and language and become impenetrable for communities.

---

[50] In Chapter Five I discussed the development of the contract state, in which health problems are frequently separated into components that are defined clearly in a tender document so stakeholders can bid in a competitive process for the mandate and resources to address the problems. The tender documents set out processes, outcomes and timetables to be observed.

[51] In Chapter Five I argued that these long-term relationships were an important condition for effective community participation.

In Chapter Five I concluded that a common thread is that changes in discourses about policy and physical activity frequently reflect broad values about the role of the state in Australia, rather than technical and rational research findings. In Chapter Seven I discussed the way that, in response to the fragmentation of services, co-ordinated care trials aimed to improve continuity of care for clinical services. I also proposed a variant of the contracting-out model whereby policy keepers could seek proposals for policy change that involved collaboration across sectors. By way of example, a recent Parliamentary report has argued that it is unlikely that the health of Indigenous Australians will improve significantly until the fragmentation of services, cost shifting and lack of agreement about responsibility for Indigenous health are fully addressed. The report recommends pooling Commonwealth health funds with State government funds and supporting Indigenous communities as they take control of these funds. This pooling is necessary to foster community involvement and control (House of Representatives Standing Committee on Family and Community Affairs 2000).

Such proposals call for moves to break down boundaries that have been erected between disciplines. These are not new calls. It has been argued that public health, city planning and civil engineering in the United States evolved together as a result of late 19th-century efforts to reduce the harmful impact of rapid industrialisation and urbanisation. Some of these impacts included housing, sanitation, ventilation and working conditions that combined to increased rates for morbidity and mortality of workers. However the bond between the three disciplines weakened as each field formed its own professional identity and today a greater challenge looms in reintegrating public health, environmental quality and economic redevelopment of cities (Greenberg, Lee & Power 1998).

Reintegration of disciplines, or moves toward a grand theory, need not be at the expense of a detailed examination of particular issues. A recent paper starts by claiming that "*Crime is a social mirror*" (Kawachi, Kennedy & Wilkinson 1999 p.719), then argues that crime can be considered as an indicator of wellbeing and is a sensitive indicator of social relations in society. The authors draw on the teaching of Sol Levine who urged people to engage in *creative integration*, or the application of ideas and concepts across disciplines in a way that sheds new light on established problems in ones own discipline. In this argument, finding the keys to explain community variations in crime is part of the same endeavour as unlocking the social and ecological antecedents of ill-health.

I argue that the pursuit of a grand theory is compatible with a detailed examination of an issue such as physical activity if the issue is viewed not as the central concern of research, but as a mirror reflecting broader, linked social questions. Nevertheless, moves towards integration of disciplines challenge existing power relationships and practices, and suggest

significant organisational restructuring to professionals who have been subject to numerous time-consuming restructuring exercises.

Grand theorists, however, are advised to heed my conclusions from Chapter Five and take care not to neglect an analysis of policy and values about the role of government itself. As I demonstrated, policies and values about government itself can have a stronger influence on health organisations than can changes in health policy.

However, as the physical activity debate moves to consider proposals about legislation and re-engineering the social environment, it may well confront another important new public health debate: regarding the relative merits of what is often called a *top down* versus a *bottom up* approach to policy development. Although the new public health builds on a long tradition of protest movements and activism, Chapter Eight canvassed a range of structural recommendations which may well run counter, at least in the short term, to people's economic and cultural preferences for motor vehicle transport and employment. These ideas can draw on one underlying assumption of the new public health that accepts a role for the state in advocating for change for collective benefits, even if this involves structural change to the government itself and short term disaffection.

And in the end...

In the end I imagine the most successful outcome will be a mixed scanning approach to both policy development and advocacy about physical activity. I envisage that as professionals we will work with communities to combine regular pragmatic steps with periodical advocacy for great strides resulting from theorising that broadens physical activity from a narrowly defined health issue to the inextricable part of the fabric of daily life that the participants in this research so eloquently described.

In closing I revisit the questions from Goethe's travels from the start of my thesis:

> *How far will my scientific and general knowledge take me? Can I learn to look at things with clear, fresh eyes? How much can I take in at a single glance? Can the grooves of old mental habits be effaced? That is what I am trying to discover (Goethe, Letters from Italy, September 11 1786).*

A public policy approach to physical activity will require more than scientific and general knowledge, but a number of glances leading us to look with clear, fresh eyes at intersectoral action and the myriad of values about health, physical activity and government. Then we may discover new mental habits.

References

Admi, H. (1996). "Growing up with a chronic health condition: A model of an ordinary lifestyle." Qualitative Health Research **6**(2 May): 163-183.

Advertiser (1st June 1994). Adelaide.

Andree-Larsen, O. and R. O. Malmborg, Eds. (1970). Coronary Heart Disease and physical fitness. Copenhagen, Scandanavian University Books.

Apps, B. (1940). "Keep fit: A duty for all." Good Health for South Australia(35): 33.

Apps, B. (1962). Student health services. The Third British Empire and Commonwealth Conference on Physical Education, Perth Western Australia,214-216.

Armstrong, T., Bauman, A., Davies, J. (2000). Physical Activity Patterns of Australian Adults. Results of the 1999 National Physical Activity Survey. Canberra, Australian Institute of Health and Welfare.

Arnold, T. (1996). Sport in transition: From making men and building a nation to an emerging industry. Inaugural Professorial Lecture. Rockhampton, Central Queensland University.

Asbury, J. (1995). "Overview of focus group research." Qualitative Health Research **5**(4): 414-420.

Auer, J. and J. Powning (1982). Policy making and organisation in preventative health - a model in Working Papers in Community Health, J. Potter and A Hodgson. Adelaide, ANZSRCH/APHA.

Australian (1st June 1994). Adelaide.

Backett, K. and Davison (1992). "Rational or reasonable? Perceptions of health at different stages of life." Health Education Journal **51**(2): 55-59.

Backett, K., C. Davison and K. Mullen (1994). "Lay evaluation of health and healthy lifestyles: evidence from three studies." British Journal of General Practice **44**(383): 277-280.

Baghurst, K. I., A. W. Sedgwick and K. Strohm (1985). "Nutritional profile of recruits to a fitness programme." The Medical Journal of Australia **143**: 188-190.

Bates, E. and H. Lapsley (1985). The health machine. Melbourne, Penguin.

Baum, F. (1995). Conclusion. Health for all: The South Australian experience. F. Baum. Adelaide, Wakefield Press: 445-461.

Baum, F., Ed. (1995). Health for all: The South Australian experience. Adelaide, Wakefield Press.

Baum, F. (1998). The new public health: An Australian perspective. Melbourne, Oxford University Press.

Baum, F. and D. Abbott (1989). A Social Health Perspective. Report to the community on the 1987 Marion, Brighton and Glenelg Community Needs Assessment Survey. Adelaide, Southern Community Health Services Research Unit.

Baum, F., F. Fry and I. Lennie, Eds. (1992). Community Health Policy and Practice in Australia. Sydney, NSW, Pluto Press.

Baum, F. E., R. A. Bush, C. C. Modra, C. J. Murray, E. M. Cox, K. M. Alexander and R. C. Potter (2000). "Epidemiology of participation: An Australian study." Journal of epidemiology and community health **54**(41): 414-423.

Baum, F. E. and R. D. Cooke (1989). "Community-health needs assessment: Use of the Nottingham Health Profile in an Australian study." Medical Journal of Australia **150**(May 15-21): 581-90.

Bauman, A. (1987). "Trends in exercise prevalence in Australia." Community Health Studies **11**: 190-196.

Bauman, A. (1997). Comparisons of levels of physical activity participation and associated factors among Australian states. Sydney, Active Australia.

Bauman, A. (1997). "Increasing physical activity participation in NSW." New South Wales Public Health Bulletin **8**(3): 11-17.

Bauman, A. and N. Owen (1991). "Habitual physical activity and cardiovascular risk factors." Medical Journal of Australia **January 22-28**: 154.

Bauman, A., N. Owen and R. L. Rushworth (1990). "Recent trends and socio-demographic determinants of exercise participation in Australia." Community Health Studies **14**: 19-26.

Bauman, A., B. Smith, L. Stoker, B. Bellew and M. Booth (1999). "Geographical influences upon physical activity participation: evidence of a coastal effect." Australian and New Zealand Journal of Public Health **23**: 322-324.

Beaglehole, R., T. Bonita and T. Kjellstrom (1997). Basic epidemiology. Geneva, World Health Organisation.

Berkman, L. and L. Syme (1979). "Social networks, host resistance, and mortality: A nine-year follow-up study of Alameda County residents." American Journal of Epidemiology **109**(2): 186-204.

Blaxter, M. (1990). Health and Lifestyles. London, UK, Routledge.

Blum, H. L. (1974). Planning for health: Development and application of social change theory. New York, Human Sciences Press.

Booth, M. (1997). "Physical activity: What's afoot?" Austalian and New Zealand Journal of Public Health **21**(6): 557-558.

Booth, M., A. Bauman, B. B. Oldenburg, N. Owen and P. Magnus (1992). "Effects of a national mass-media campaign on physical activity participation." Health Promotion International **7**: 241-247.

Bouchard, C., R. J. Shephard, T. Stephens, J. R. Sutton and B. D. McPherson (1988). Exercise, fitness and health: the consensus statement. Exercise, fitness and health:

A consensus of current knowledge. C. Bouchard, R. J. Shephard, T. Stephens, J. R. Sutton and B. D. McPherson. Champaign, Illinois, Human Kinetics Books: 3-27.

Bowling, A. (1991). Measuring health. A review of quality of life measurement scales. Buckingham U.K, Open University Press,.

Brady, M. (1992). Heavy metal: The social meaning of petrol sniffing in Australia. Canberra, Aboriginal Studies Press.

Broderick, D. and P. Laris (1995). The South Australian Community Health Association. Health for all: the South Australian experience. F. Baum. Adelaide, Wakefield Press: 230-241.

Broom, D. H. (1991). Damned if we do: Contradictions in womens' health care. North Sydney, NSW, Allen and Unwin.

Brown, V. A. (1989). Health care policies, health policies or policies for health? Health policy. Development, Implementation and Evaluation in Australia. H. Gardner. Melbourne, Churchill Livingstone 1992.

Bull, F. C. L., E. C. C. Schipper, K. Jamrozik and B. A. Blanksby (1995). "Beliefs and behaviour of general practitioners regarding promotion of physical activity." Australian Journal of Public Health **19**(3): 300-304.

Burrows, R., R. Bunton, S. Muncer and K. Gillen (1995). "The efficacy of health promotion, health economics and late modernism." Health Education Research, Theory and practice **10**(2): 241-249.

Cameron, M. and C. MacDougall (2000). Crime prevention through sport and physical activity. Canberra, Australian Institute of Criminology.

Cameron, R., R. Walker and M. A. Jolin (1998). International best practices in heart health. Toronto, Heart Health Resource Centre.

Centers for Disease Control and Prevention (1997). Guidelines for school and community programs to promote lifelong physical activity among young people - Mortality and Morbidity Weekly Report: 1-36.

Children's Health Development Foundation (1997). Children's Health Development Foundation Strategic Plan 1997 to 2000: Setting New Directions. Adelaide, Women and Children's Hospital.

Children's Health Development Foundation (1998). Physical activity. Virtually Healthy Newsletter. **8**.

Cobb, R. W. and C. D. Elder (1983). Participation in American politics: The dynamics of agenda-building (2nd ed.). Baltimore, John Hopkins University Press.

Commission of Audit (1994). Charting the way forward: Improving public sector performance. Adelaide, South Australia, State Information Office.

Commonwealth of Australia (1994). Better health outcomes for Australians. Canberra, Australian Government Publishing Service.

Considine, M. (1994). Public policy: A critical approach. Melbourne, MacMillan.

Considine, M. and M. Painter (1997). Introduction. Managerialism: The great debate. M. Considine and M. Painter. Melbourne, Melbourne University Press: 1-11.

Consumer focus collaboration strategic plan 1997/8-2001/01 (1998). Strengthening the focus on consumers in health service planning, delivery, monitoring and evaluation in Australia. Canberra, National Expert Advisory Group on Safety and Quality in Australian Health Care.

Corti, B., R. J. Donovan and C. D. A. Holman (1996). "Factors influencing the use of physical activity facilities: Results from qualitative research." Health Promotion Journal of Australia **6**(1): 16-21.

Corti, B., D. A. Holman, R. Donovan and M. Broomhall (1997). Does the accessibility of community recreational facilities influence physical activity levels? Melbourne, 20-21 March 1997, 1997 National Physical Activity, Sport and Health Conference: Issues, directions, and strategies from grassroots to global.

Cox, E. (1995). A truly civil society: 1995 Boyer Lectures, Australian Broadcasting Commission.

Cox, E. (1997). "Building social capital." Health Matters **4**(1): 1-4.

Crabtree, B. F. and W. F. Miller, Eds. (1992). Doing qualitative research. Newbury Park, Sage Publications.

Craythorn, E. (1999). Creating supportive environments for physical activity: A report on utilisation of the Tracker Riley Cyclepath in Dubbo. Dubbo, Macquarie Area Health Service.

Crotty, M. (1998). The foundations of social research: Meaning and perspective in the research process. St Leonards, New South Wales, Allen & Unwin.

Cumpston, J. (1939). "Ten rules for a Keep Fit holiday." Good Health for South Australia(29): 10.

Daly, J. A. (1982). Elysian fields: Sport, class and community in colonial South Australia 1836-1890. Adelaide, John A Daly.

Daly, J. A. (1991). Quest for excellence: The Australian Institute of Sport. Canberra, Australian Government Publishing Service.

Davis, G. (1997). Towards a hollow state? Managerialism and its critics. Managerialism: The great debate. M. Considine and M. Painter. Melbourne, Melbourne University Press: 200-223.

Davison, C., S. Frankel and G. D. Smith (1992). "The limits of lifestyle: Re-assessing "fatalism" in the popular culture of illness prevention." Social Science and Medicine **34**(6): 675-685.

de Laine, M. (1997). Ethnography: Theory and applications in health research. Sydney, MacLennan and Petty.

de Leeuw, E. (1989). Health policy: An exploratory inquiry into the development of policy for the new public health in the Netherlands. The Netherlands, Boekhandel De Tribune.

Denton, M. and V. Walters (1999). "Gender differences in structural and behavioral determinants of health: an analysis of the social production of health." Social Science and Medicine **48**: 1221-1235.

Department of Finance Evaluation and Staffing Analysis Branch (1994). Senior Officer Selection by APS Agencies: Working Paper. Canberra, Commonwealth Department of Finance.

Department of the Arts Sport the Environment and Territories (1992). Summary of the Pilot Survey of the Fitness of Australians. Canberra, Australian Government Publishing Service.

Dishman, R. K., Oldenbung, B., O'Neal, H., Shephard, R.J. (1998). "Worksite Physical Inactivity Interventions." American Journal of Preventive Medicine **15**(4): 344-361.

Dodey, K. (2000). "Redistributing Danger." Australian Planner **37**(1): 10-13.

Donovan, R., G. Jegger and M. Francas (1999). "TARPARE: A method for selecting target audiences for public health interventions." Australian and New Zealand Journal of Public Health **23**(3): 280-284.

Duras, F. (1962). Conference summing up. The Third British Empire and Commonwealth Conference on Physical Education, Perth, Western Australia,264-274.

Dwyer, J. (1989). "The politics of participation." Community Health Studies **13**: 159-165.

Dwyer, T., W. E. Coonan, D. R. Leitch, B. S. Hetzel and P. A. Baghurst (1983). "An investigation of the effects of daily physical activity on the health of primary school students in South Australia." International Journal of Epidemiology **12**: 196-202.

Easton, D. (1965). Systems analysis of political life. New York, John Wiley & Sons.

Elford, K. (1976). Sport in Australian society: A perspective. Sport in Australia: Selected readings in physical activity. T. D. Jaques and G. R. Pavia. New York, McGraw Hill.

Etzioni, A. (1968). The active society: A theory of societal and political processes. London, Collier-Macmillan.

Folch-Lyon, E. and J. F. Trost (1981). "Conducting focus group sessions." Studies in Family Planning **12**(12): 443-449.

Fontana, A. and J. H. Frey (1994). Interviewing: the art of science. Handbook of qualitative research. N. K. Denzin and Y. S. Lincoln. Thousand Oaks, Sage Publications: 361-376.

Frankel, S., C. Davison and G. D. Smith (1991). "Lay epidemiology and the rationality of responses to health education." British Journal of General Practice. **41**(351): 428-430.

Freund, P. E. S. and G. Martin (1993). The ecology of the automobile. NY, Black Rose Books.

Frost, L. and T. Dingle (1995). Sustaining suburbia: An historical perspective on Australia's urban growth. Australian cities: Issues, strategies and policies for urban Australia in the 1990s. P. Troy. Melbourne, Cambridge University Press: 20-38.

Fry, D. and F. Baum (1992). Keywords in community health. Community health: Policy and practice in Australia. F. Baum, D. Fry and I. Lennie. Bondi Junction, New South Wales: 307.

Fudge, E. (1997). "When I'm 64: Public policy influences on wellbeing in retirement." Australian Journal of Primary Health-Interchange **3**(2): 44-47.

Fudge, E. (1998). "Recently retired non-professional men and their perceptions of retirement." Australian Journal on Ageing **17**(2): 90-94.

Glass, T. A., C. M. d. Leon, R. A. Marottoli and L. F. Berkman (1999). "Population based study of social and productive activities as predictors of survival among elderly Americans." British Medical Journal **309**(24 August): 478-483.

Gordon, I., L. Lewis and K. Young (1977). "Perspectives on policy analysis." Public Administration Bulletin **25**.

Goumans, M. and J. Springett (1997). "From projects to policy:"Healthy Cities" as a mechanism for policy change for health?" Health Promotion International **12**(4): 311-322.

Grant, C. and H. M. Lapsley (1993). The Australian health care system. NSW Australia, School of Health Services Management,.

Greenberg, M., C. Lee and C. Power (1998). "Public health and brownfields: Reviving the past to protect the future." American Journal of Public Health **88**(12): 1759-1760.

Griest, D. L. and K. C. Wells (1983). "Behavioural family therapy with conduct disorders in children." Behaviour Therapy **14**: 37-53.

Griffin, M. W. and A. M. Hudson (1980). Parent training. Bundoora, Victoria, Pit Publishing.

Grinyer, A. (1995). Risk, the real world and naive sociology: Perceptions of risk from occupational injury in the health service. Medicine, health and risk: Sociological approaches. J. Gabe. Cambridge MA, Blackwell Publishers.

Gubrium, J. F. and J. B. Wallace (1990). "Who theorises age?" Ageing and Society **10**: 131-149.

Hahn, A. and E. Craythorn (1994). "Inactivity and the physical environment in two regional centres." Health Promotion Journal of Australia **4**(2): 43-45.

Ham, C. and M. Hill (1993). The policy process in the modern capitalist state (Second Edition). London, Harvester Wheatsheaf.

Hamilton, C. (1993). Scaling the peaks, An unpublished paper prepared for the South Australian Serving Communities implementation Task Force.

Hancock, T. (1990). Developing healthy public policies at the local level. Healthy public policy at the local level. A. Evers, W. Farrant and A. Trojan. Frankfurt am Main, Campus Verlag: 7-11.

Harding, A. (1985). "Unemployment policy: A case study in agenda management." Australian Journal of Public Administration **XLIV**(3): 224-246.

Hawe, P., D. Degeling and J. Hall (1990). Evaluating health promotion. Sydney, MacLennan and Petty.

Heclo, H. (1972). "Review article: Policy analysis." British Journal of Political Science **2**(1): 83-108.

Henderson, R. (1975). Poverty in Australia: First Main Report. Canberra, Australian Government Publishing Service.

Hinrichsen, G. and E. Craythorn (2000). Active communities: A collection of innovative physical activity initiatives by communities in western NSW. Dubbo, NSW Sport and Recreation, Macquarie Area Health Service, Active Australia.

Hogwood, B. and L. Gunn (1984). Policy analysis for the real world. Oxford, Oxford University Press.

Holman, C. D. (1992). "Something old, something new: Perspectives on five "new" public health movements." Health Promotion Journal of Australia **2**(3): 5-10.

Horne, A. M. and B. Van Dyke (1983). "Treatment and maintenance of social learning family therapy." Behaviour Therapy **14**: 606-613.

House, J. S., K. R. Landers and D. Umberson (1988). "Social relationships and health." Science **241**: 540-545.

House of Representatives Standing Committee on Family and Community Affairs (2000). Health is Life: Report on the Inquiry into Indigenous Health. Canberra, The Parliament of the Commonwealth of Australia.

Hudson, B. (1993). Michael Lipsky and street level bureaucracy: A neglected perspective. The policy process: A reader. M. Hill. Hemel Hempstead, Harvester Wheatsheaf: 386-398.

Idler, E. L. (1992). "Self assessed health and mortality: A review of studies." International Review of Health Psychology: 33-54.

International Conference on Traffic Safety (1992). "Safety of cyclists and pedestrians." Accident analysis and prevention **24**(1): 102.

Joint Committee of Public Accounts (1992). Managing People in the Australian Public Service: Dilemmas of Devolution and Diversity., Parliament of the Commonwealth of Australia.

Kawachi, I., B. P. Kennedy and R. G. Wilkinson (1999). "Crime: social disorganisation and relative deprivation." Social Science and Medicine **48**: 719-731.

Kelly, M. P. (1992). "Health promotion in primary care: taking account of the patient's point of view." Journal of Advanced Nursing **17**: 1291-1296.

Kelly, P. (1992). The end of certainty: The story of the 1980s. St Leonards, NSW, Australia, Allen and Unwin.

Khan, M. E. and L. Manderson (1992). "Focus groups in tropical diseases research." Health Policy and Planning **7**(1): 56-66.

Kickbusch, I. (1989). Good planets are hard to find. World Health Organisation Healthy Cities Papers No. 5. Copenhagen, FADL Publishers.

Kickbusch, I. (1997). WHO Statement on Active Living. Fourth International Conference on Health Promotion, Jakarta.

Kickbush, I. (1996, 15 November). Building the prevention agenda for 2010: Lessons learned. Healthy People 2000 Consortium Meeting, New York, World Health Organisation.

Kirke, K. (1995). A state public and environmental health authority. Health for all: the South Australian experience. F. E. Baum. Adelaide, Wakefield Press**:** 242-252.

Kosicki, G. M. (1993). "Problems and opportunities in agenda-setting research." Journal of Communication **43**(2 (Spring)): 100-127.

Kosky, R. (1992). Health policy. The Bannon decade. A. Parkin and A. Patience. Sydney, Allen & Unwin**:** 237-250.

Krueger, R. A. (1994). Focus groups: A practical guide for applied research. Thousand Oaks, Sage Publications.

Kweit, R. and M. Kweit (1981). Implementing citizen participation in a bureaucratic society. New York, Praeger.

Labonte, R. (1992). "Heart health inequalities in Canada: Models, theory and planning." Health Promotion International **7**(2): 119-128.

Labonte, R. (1996 14 February). Personal communication.

Lasswell, H. (1951). The policy orientation. The policy sciences. D. Lerner and H. Lasswell. Stanford, Stanford University Press.

Last, J. (1995). A dictionary of epidemiology. New York, Oxford University Press.

Limerick, D. and B. Cunnington (1993). Managing the new organisation: A blueprint for networks and strategic alliances. New South Wales, Business and professional publishing.

Lindblom, C. (1959). "The science of muddling through." Public Administration Review **19**(2): 79-88.

Lindsay Holmes and Associates (1999). "Gently Physical: The GP program." Health Promotion Quarterly **November**: 9.

Lipsky, M. (1980). Street-level bureaucracy: Dilemmas of the individual in public services. New York, Russell Sage Foundation.

Lupton, D. (1999). "Dangerous places and the unpredictable stranger: Constructions of fear of crime." Australian and New Zealand Journal of Criminology **32**(1): 1-15.

MacDougall, C. (1995). Lifestyle change and health promotion. The new public health: The South Australian experience. F. E. Baum. Melbourne, Wakefield Press: 362-374.

MacDougall, C. (1996). Exercise policy and community voices. Department of Public Health Seminar Series, Flinders University, Adelaide, Australia August.

MacDougall, C. and F. Baum (1997). "The Devil's Advocate: A Strategy to Avoid Groupthink and Stimulate Discussion in Focus Groups." Qualitative Health Research **7**(4): 532-541.

MacDougall, C. and R. Cooke (1993). Exercise policy: A primary health care approach. The 1993 Australian Community Health Conference Volume 1: Papers and Workshops. B. Clarke and C. MacDougall. Bondi Junction: New South Wales, Australian Community Health Association. 1: 1-23 to 1-25.

MacDougall, C., R. Cooke, N. Owen, K. Willson and A. Bauman (1997). "Relating physical activity to health status, social connections and community facilities." Australian and New Zealand Journal of Public Health **21**(6): 631-637.

MacDougall, C. and E. Fudge (2000 in press). "Planning and recruiting the sample for focus groups and in-depth interviews." Qualitative Health Research.

MacDougall, C. and C. Wright (1996). Community voices for healthy exercise choices. Annual Public Health Association Conference, Perth, Australia.

MacIntyre, S. and E. Ellaway (1999). Local opportunity structures, social capital and social inequality in health: what can central and local governments do? 11th National Health Promotion Conference, Perth, Western Australia.

Mark, A., L. Franco and A. Miners (1998). Active in the city: Environmental change to promote participation in physical activity. Illawarra, National Heart Foundation.

Marmot, M. G. and J. F. Mustard (1994). Coronary heart disease from a population perspective. Why are some people healthy and others not? R. G. Evans, M. L. Barer and T. R. Marmor. New York, Walter de Gruyter: 189-214.

Martikainen, P., A. Aromaa, M. Heliovaara, T. Klaukka, P. Knekt, J. Maatela and E. Lahelma (1999). "Reliability of perceived health by sex and age." Social Science and Medicine **48**: 1117-1122.

Mathers, C., T. Vos and C. Stevenson (1999). Burden of disease and injury in Australia. Canberra, AIHW.

Maynard, E. J., W. E. Coonan, A. Worsley, T. Dwyer and P. A. Baghurst (1987). The development of the lifestyle education program in Australia. Cardiovascular risk factors in early childhood: Epidemiology and prevention. B. S. Hetzel and G. S. Berenson. Amsterdam, Elsever. 1: 123-150.

McCallum, J., B. Shadbolt and D. Wang (1994). "Self rated health and survival: A 7 year follow up study of Australia's elderly." American Journal of Public Health **84**(7): 1100-1105.

McCombs, M. and D. L. Shaw (1993). "The evolution of agenda-setting research: Twenty-five years in the marketplace of ideas." Journal of Communication **43**(2): 58-67.

McIntosh, P. C. (1962). Today's world wide interst in fitness-Why? The 3rd British Empire and Commonwealth Conference on physical education, Perth, Western Australia,154-164.

McKay, D. G. (1942). "Fit people make a fit nation." Good Health for South Australia(42): 13.

Merton, R. K. (1987). "The focussed interview and focus groups: Continuities and discontinuities." Public Opinion Quarterly **51**: 550-556.

Merton, R. K., M. Fiske and P. L. Kendall (1956). The focused interview. Glencoe, IL, Free Press.

Metcalfe, A. (1993). "Living in a clinic: the power of public health promotions." Anthropological Journal of Australia **4**(1): 291-297.

Midgley, J., A. Hall, H. Hardiman and D. Narine (1986). Community participation, social development and the state. London, Methuen.

Milburn, K. (1996). "The importance of lay theorising for health promotion research and practice." Health Promotion International **11**(1): 41-46.

Milio, N. (1986). Promoting health through public policy. Philadelphia, F.A Davis Co.

Milio, N. (1988). "Making healthy public policy; developing the science by learning the art: an ecological framework for policy studies." Health Promotion International **2**(3): 263-274.

Milio, N. (1990). "Healthy Cities: the new public health and supportive research." Health Promotion International **5**(4): 291-297.

Morris, M., S. Mann and T. Byrne (2000). "Safe dreaming trails to school: Community participation in indigenous culture." Australian Journal of Primary Health Care - Interchange **6**(2): 110-115.

Mowbray, M. (1985). The medicinal properties of localism: a historical perspective. Community Work or Social Change? R. Thorpe and J. Petrucheria. Melbourne, Routledge & Kegan Paul: 50-66.

Mumford, L. (1961). The city in history. Middlesex, England, Penguin.

Murphy, B., J. Cockburn and M. Murphy (1992). "Focus groups in health research." Health Promotion Journal of Australia **2**(2): 37-40.

Naccarella, L., N. Owen and K. Haag (1986). Fitness Leadership. Motivation, communication and behaviour change. Adelaide, ACHPER.

National Centre for Culture and Recreation Statistics (2000). Leisure-Time Physical Activity. Adelaide.

New South Wales Health (1999). The Active Practice Project: A controlled trial of physical activity promotion in general practice. Sydney, NSW Health.

NH&MRC (1997). Acting on Australia's Weight: A Strategic Plan for the Prevention of Overweight and Obesity. Canberra, AGPS.

Nordlinger, E. (1981). On autonomy of the democratic state. Cambridge: Mass, Harvard University Press.

Nutbeam, D. (1996). "Achieving best practice in health promotion - improving the fit between research and practice." Health Education Research **11**: 317-326.

O'Connor, M. L. (1995). Health Promotion: principles and practice in the Australian context. NSW, Australia, Allen & Unwin.

Opie, I. and M. Tatem (1996). A dictionary of superstitions. New York, Oxford University Press.

O'Reilly, P. (1988). "Methodological issues in social support and social network research." Social Science and Medicine **26**(8): 863-873.

Orth-Gomer, K. and A. Unden (1987). "The measurement of social support in population surveys." Social Science and Medicine **24**(1): 83-94.

Owen, N. and A. Bauman (1992). "The descriptive epidemiology of a sedentary lifestyle in adult Australians." International Journal of Epidemiology **21**(2): 305-310.

Owen, N., W. Coonan and A. Worsley (1991). Planning, implementation and evaluation of community-based preventive programmes in children and youth. Youth health promotion: From theory to practice in school and community. D. Nutbeam, B. Haglund, P. Farley and P. Tillgren. London, Harwood Academic Publishers**:** 292-310.

Owen, N. and D. Crawford (1998). Health promotion: Perspectives on physical activity and weight control. Health psychology. D. W. J. M. Johnston. Oxford, Pergamon. 8**:** 675-689.

Owen, N. and C. Lee (1984). Why people do and do not exercise. Adelaide, Department of Recreation and Sport.

Oxenberry, R. (1995). The policy inheritance. The new public Health: The South Australian Experience. F. Baum. Adelaide, Wakefield Press**:** 38-50.

Paffenbarger, R. S., R. T. Hyde, A. L. Wing, I. Lee, D. L. Jung and J. B. Kampert (1993). "The association of changes in physical activity level and other lifestyle characteristics with mortality among men." New England Journal of Medicine **328**: 538-545.

Palmer, G. R. and S. D. Short (1994). Health care and public policy: An Australian analysis (second edition). Melbourne, Macmillan.

Patterson, G. R. (1982). A social learning approach to family intervention. Vol. III. Coercive fmaily process. Eugene, Oregon, Castalia Publishing Company.

Patton, M. Q. (1990). Qualitative evaluation and research methods (Second Edition). Newbury Park, Sage Publications.

Pederson, A. P. e. a. (1988). Coordinating healthy public policy: An analytic literature review and bibliography. Health and Welfare Canada, Health Services and promotion Branch Working Paper. Ottawa.

Peterson, A. and D. Lupton (1996). The new public health: Health and self in an age of risk. St Leonards, New South Wales, Allen & Unwin.

Peterson, A. R. (1994). In a critical condition: Health and power relations in Australia. Sydney, Allen & Unwin.

Peterson, C., K. Beck and G. Rowell (1992). Psychology: An introduction for nurses and allied health professionals. Sydney, Prentice Hall.

Poister, T. H. (1979). Public program analysis: applied research methods. Baltimore, University Park.

Powles, J. (1988). Keeping the doctor away. Constructing a culture. V. Burgmann and J. Lee. Melbourne, McPhee Gribble/Penguin Books: 70-84.

Prochaska, J. O. and C. C. DiClemente (1982). "Transtheoretical therapy: Toward a more integrative model of change." Psychotherapy: Theory, research and practice **19**(3 Fall): 276-288.

Prochaska, J. O. and C. C. DiClemente (1986). Toward a comprehensive model of change. Treating the Addictive Behaviours: Processes of change. W. R. Miller and N. Heather. USA, Plenum Press.

Pusey, M. (1991). Economic rationalism in Canberra. Melbourne, Cambridge University Press.

Putland, C., F. Baum and C. MacDougall (1997). "How can health bureaucracies consult effectively about their policies and practices? Some lessons from an Australian study." Health Promotion International **12**(4): 299-309.

Putnam, R. (1993). Making democracy work: civic traditions in modern Italy. Princeton NJ, Princeton University Press.

Radley, A. and M. Billig (1996). "Accounts of health and illness: Dilemmas and representations." Sociology of Health and Ilness **18**(2): 220-240.

Raftery, J. (1995). Health policy development in the 1980s and 1990s. Health for all: The South Australian experience. F. Baum. Adelaide, Wakefield Press: 51-64.

Rakich, J. S., B. B. Longest and K. D. Darr (1992). Managing health services organizations. Baltimore, Maryland, Health Professions Press.

Reader, R. (1996). The National Heart Foundation of Australia and Heart Disease in Australia: An account of the Foundation's first twenty years. New South Wales, National Heart Foundation.

Reynolds, C. (1995). Public health law in Australia. Sydney, Federation Press.

Ritchie, J. (1994). "Education for primary health care: accomodating the new realities." World Health Forum **15**: 147-149.

Ritchie, J. and L. Spencer (1994). Qualitative data analysis for applied policy research. Analyzing qualitative data. A. Bryman and R. G. Burgess. London, Routledge: 173-194.

Robertson, A. and M. Minkler (1994). "New public health movement: A critical evaluation." Health Education Quarterly **21**(3): 295-312.

Robinson, C. A. (1993). "Managing life with a chronic health condition: The story of normalization." Qualitative Health Research. **3**(1): 6-28.

Roe, M. (1984). Nine Australian progressives: Vitalism in bourgeois social thought 1890-1960. Brisbane, University of Queensland Press.

Roper, S. (1998). Petrol sniffing and preventive interventions on the Anangu Pitjantjatjara Lands. Department of Public Health. Adelaide, Flinders University.

Rose, G. (1985). "Sick individuals and sick populations." International Journal of Epidemiology **14**(1): 579-603.

Sallis, J. and M. F. Hovell (1990). "Determinants of exercise behaviour." Exercise and sports science reviews **18**(11): 307-330.

Sallis, J. F. and N. Owen (1999). Physical activity and behavioral medicine. Thousand Oaks CA, Sage.

Sarantakos, S. (1998). Social research. Second edition. South Yarra, Victoria, Macmillan.

Schon, D. A. (1987). Educating the reflective practitioner. San Francisco USA, Jossey Bass.

Sedgwick, A. W. (1993). Personal interview about the Institute for Fitness, Research and Training.

Sedgwick, A. W. and N. Owen (1983). Lifelong fitness: Instructor's manual. Adelaide, Institute for Fitness Research and Training.

Sedgwick, A. W., D. S. Smith and M. Davies (1988). "Muscoloskeletal status of men and women who entered a fitness programme." The Medical Journal of Australia **148**: 385-391.

Sedgwick, A. W., D. W. Thomas, M. Davies, K. Baghurst and M. Rose (1989). "Cross-sectional and longitudinal relationships between physical fitness and risk factors for coronary heart disease in men and women: The Adelaide 1000." Journal of Clinical Epidemiology **42**(189-200).

Sheldon, T. A., G. D. Smith and C. Davison (1993). "SImple education is never enough." British Medical Journal **307**: 380-381.

Sheridan, G. (2000). The Keating report. The Australian Magazine. **March 11-12:** 19-25.

Silagy, C., J. Muir, A. Coulter, M. Thorogood and L. Roe (1993). "Cardiovascular risk and attitudes to lifestyle: what do patients think?" British Medical Journal **306**: 1657-60.

Simon, H. (1945). Administrative behavior. Glecoe, Ill, Free Press.

Simon, H. (1957). Administrative behaviour. Second edition. New York, Macmillan.

South Australia Department of Human Services (1999). SA Physical Activity Survey 1998: Summary of Findings. Adelaide, Government of South Australia.

South Australian Health Commission (1988). Primary Health Care Policy Statement. A Social Health Strategy for South Australia. Adelaide, South Australian Health Commission.

South Australian Health Commission (1993). Strategic Directions for Primary Health Care. Adelaide, South Australian Health Commission.

Sport and Recreation Ministers' Council (1997). Active Australia. Canberra, Australian Sports Commission.

Stoddart, B. (1988). The hidden influence of sport. Constructing a culture. V. Burgmann and J. Lee. Melbourne, McPhee Gribble/Penguin Books: 124-135.

Stoner, J. A. F., P. W. Yetton, J. F. Craig and K. D. Johnston (1994). Management. Sydney, Prentice Hall.

Sustrans (1999). Safe routes to School.

Sustrans (2000). What is Safe Routes to Schools?

Sutherland, S. C. (1991). Environmental Services Division, Discussion Paper on Community Participation. Sydney, Sutherland Shire Council.

Swinburn, B. A., L. G. Walter, B. Arroll, M. W. Tilyard and D. G. Russell (1998). "The Green Prescription study: A randomised controlled trial of written exercise advice provided by general practitioners." American Journal of Public Health **88**: 288-291.

Sylvan, L. and D. Legge (1988). The Consumers' Health Forum and the Victorian Health Councils Program. Second International Health Promotion Conference. Healthy Public Policy, Adelaide.

Syme, S. L. (1996). To prevent disease: The need for a new approach. Health and social organisation. D. Blane and E. Brunner. London, Routledge.

Tesh, S., C. Tuohy, T. Christoffel, T. Hancock, J. Norsigian, E. Nightingale and L. Robertson (1988). "The meaning of healthy public policy." Health Promotion **2**(3): 257-262.

The Heart Foundation National Physical Activity Program Committee (2000). National Heart Foundation of Australia (NHFA) Physical Activity Policy.

The new shorter Oxford English dictionary (1993). Oxford, Clarendon Press.

The Pedestrian Council of Australia (1999). The Australian Pedestrian Charter.

Thiele, C. (1975). Grains of mustard seed. Adelaide, Education Department, South Australia.

Thomas, A. and A. Hehir (1998). "Health Promoting Schools in Western Sydney." Australian Journal of Health Promotion **8**(2): 130-135.

Thomas, R. F. (1975). The development of physical education in South Australia 1900-1974. Advanced Diploma in Teaching in Education Thesis. Adelaide, Salisbury College of Advanced Education: 116.

Thomas, S., I. Steven, C. Browning, E. Dickens, L. Eckerman, L. Carey and S. Pollard (1992). "Focus groups in health research: A methodological review." Annual Review of Health Social Sciences **2**: 7-20.

Thompson, T. I. (1947). "Fit young adults: Good progress of nattional fitness schemes." Good Health for South Australia(69): 10.

Thomson, P. (1998). Thoroughly modern management and a cruel accounting: The effects of public sector reform on public education. Education policy and public education in Australia. A. Reid. Adelaide, Australian Curriculum Studies Association and Centre for the Study of Public Education at the University of South Australia: 37-48.

Thorpe, R. (1985). Community work and ideology: an Australian perspective. Community Work or Social Change? R. Thorpe and J. Petrucheria. Melbourne, Routledge & Kegan Paul: 20-36.

Travers, P. and S. Richardson (1993). Living decently: Material well-being in Australia. Melbourne, Oxford University Press.

Trosa, S. (1997). The era of post managerialism. Managerialism: The great debate. M. Considine and M. Painter. Melbourne, Melbourne University Press: 239-254.

Tuckett, D., M. Boulton, C. Olson and A. Williams (1985). Meetings between experts: An approach to sharing ideas in medical consultations. London, Tavistock.

Turner, J. (2000). Hitting the open road. South Australian Motor: 23-24.

U.S. Department of Health and Human Services (1996). Physical activity and health: A report of the Surgeon General. Atlanta, GA, Centers for Disease Control.

Unger, J. (1995). "Sedentary lifestyle as a risk factor for self-reported poor physical and mental health." American Journal of Health Promotion **10**(1): 15-17.

Unger, J. B. and C. A. Johnson (1995). "Social relationships and physcial activity in health club members." American Journal of Health Promotion. **9**(5): 340-343.

Vita, P. (1990). The determinants of the long term maintenance of vigorous physical activity: A follow up of the "Adelaide 1000.". Unpublished Master of Applied Psychology thesis, University of Adelaide.

Wallace, J. B. (1992). "Reconsidering the Life Review: The social construction of talk about the past." The Gerontologist **32**(1): 120-125.

Wass, A. (1994). *Promoting health: The primary health care approach*. NSW, Harcourt Brace.

Wass, A. (1996 1 October). Personal Communication.

Watson, D. (1999). "Crowning a nation." The Australian's Review of Books **July**: 10-13.

Western Health Services Planning Unit (1993). People Planning for a Healthy Change. Adelaide, South Australian Health Commission.

White, K. (1996). The Social Origins of Illness and the Development of the Sociology of Health. Health in Australia. Sociological Concepts and Issues. C. Grbich. Sydney, Prentice Hall: 37-54.

White, R. (1999). "Public spaces, social planning and crime prevention." Urban Policy and Research **17**(4): 301-308.

Wildavsky, A. (1985). "The once and future school of public policy." Public Policy International **79**: 25-41.

Williams, B. and J. H. Barlow (1998). Falling out with my shadow: Lay perceptions of the body in the context of arthritis. The body in everday life. S. Nettleton and J. Watson. London, Routledge.

Winefield, H. R., T. G. C. Murrell, J. V. Clifford and E. A. Farmer (1995). "The usefulness of distinguishing different types of general practice consultation, or are needed skills always the same?" Family Practice **12**(4): 402-407.

World Health Organisation (1978). Primary Health Care "Health for all" series no. 1. International Conference of Primary Health Care, Alma Ata, USSR, World Health Org/UNICEF Geneva.

World Health Organisation (1986). "Ottawa Charter for Health Promotion." Health Promotion **1**(4): i-v.

World Health Organisation (1999). WHO Approach to Health Promotion. **1999**.

World Health Organization (1988). Healthy public policy Adelaide Recommendations. Geneva, World Health Organization.

World Health Organization (1997). The Jakarta Declaration on leading health promotion into the 21st Century. Geneva, World Health Organization.

Worsley, A., W. Coonan, D. Leitch and B. Hetzel (1981). The psychological aspects of the NEHPS Project. (unpublished paper).

Wright, C., R. Atkinson, R. Cox, S. Dunn and K. Ferguson (1999). Supportive environments for physical activity: Guidelines for local government. Adelaide, National Heart Foundation.

Wright, C., C. MacDougall, R. Atkinson and B. Booth (1996). Exercise in daily life: supportive environments. Adelaide, Commonwealth of Australia.

Yeatman, A. (1990). Bureaucrats, technocrats, femocrats. Sydney, Allen & Unwin.

Yeatman, A. (1997). The reform of public management. Managerialism: The great debate. M. Considine and M. Painter. Melbourne, Melbourne University Press: 173-187.

Young, O. (1968). Systems of political science. Englewood Cliffs, Prentice Hall.

Ziglio, E. (1987). Policy-making and planning in conditions of uncertainty. Theoretical considerations for health promotion policy. Working paper #7, Research Unit in Health and Behavioural Change. Edinburgh, University of Edinburgh: 24.