Planning for Older Adults:

Experiences in Physical Activity

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A thesis submitted in partial fulfilment for the degree of
Master of Planning
At the University of Otago, Dunedin,
New Zealand

December 15 2012
Abstract

The New Zealand population, like many other Western countries, is currently experiencing an ageing phenomenon. Increased life expectancy, declining fertility rates and the ‘baby-boomer’ generation approaching retirement, all contribute to New Zealand’s ageing population. By 2051, there will be 1.18 million people aged 65 and older, representing an increase of 165% since 2001. The rapidly ageing population will have significant social, cultural and economic implications in the future. The main areas of concern at the national level will be the future sustainability of the taxpayer-funded superannuation, and the increasing costs associated with providing older adults with social welfare, health facilities and disability services. There will also be many planning implications at the local level, to prepare and implement a range of strategies to enable older people to keep their independence and security in their communities. Therefore, there is an urgent need for older adults to remain active, by participating in regular physical activity, to have healthy and satisfied lives beyond retirement.

This research investigates older adults’ participation in physical activity in New Zealand, using Dunedin City as a case study. In this research an ‘older adult’ refers to a person who is aged 65 and older. This thesis investigates the key barriers to, and opportunities, for their participation in physical activity. The extent the current planning system is enabling older adults to participate in, and what services and resources are currently designated to increase this involvement, will be analysed. It will also examine how physical activity can be best planned for at the local level in the future, special emphasis will be given to Māori adults. A humanistic qualitative approach was utilised in this research, which allowed a comprehensive understanding of informants’ experiences and perceptions. Thirty-nine semi-structured interviews were conducted across three respondent groups. These included; 12 adults in Dunedin, 14 planning professionals working within local councils and 13 employees in the sport and health industry. This gave a broad multi-faceted understanding of the research area.
Results suggest that there are a number of barriers that exist at the personal, community and national levels. These have varied in their effect, based on individuals’ life experiences and personal characteristics. However, there are a number of opportunities for being physically active. It can be deduced that there is insufficient central guidance to encourage older adults to be active at the local level. Every local council has planned for their ageing population in a different way, and several specific examples are provided. Research resulted in a number of key findings. These will be of value to; central government, the sport and health industry and local government, with specific reference to Dunedin and the wider Otago region. Some of these findings are general in nature, while others are more specific, and these were largely derived from older adults’ personal experiences.
Acknowledgements

There are a number of people I would like to acknowledge for their contribution this year:

My mother Rosemary, father Dene, brother Mark and partner James. Thank you for being there for me and keeping me sane. You mean the world to me.

Everybody who gave up their time to contribute to this study in so many different ways. This thesis would not be possible without you. Thank you for being so friendly and generous with your time. Special thanks to the older adults who happily allowed me to come into their homes and spoke with me openly.

My supervisor: Rosalind Day. Thank you for your advice, support and encouragement.

Thank you to all my lovely friends whom I have known over these past five years while studying at Otago University. Special mention to; Tara, Rachel, Elaine, Bethany, Helen and Heidi. I couldn’t ask for better friends!

Finally, I would like to dedicate this thesis to my wonderful kuia, Olive. Thank you for raising me and teaching me that education is the most powerful tool of all.
# Table of Contents

Abstract ................................................................................................................................................. iii
Acknowledgments ................................................................................................................................. iv
Table of Contents ................................................................................................................................ iv
List of Figures ........................................................................................................................................ viii
List of Tables .......................................................................................................................................... ix
Acronyms .............................................................................................................................................. x
Māori Definitions ................................................................................................................................. xi

## 1.0 Introduction ................................................................................................................................. 1

1.1 Background .................................................................................................................................. 1
1.2 Rationale ....................................................................................................................................... 5
1.3 Aim and Research Questions ......................................................................................................... 9
1.4 Defining Key Concepts ................................................................................................................. 11
1.5 Thesis Structure ............................................................................................................................. 12

## 2.0 Context ........................................................................................................................................ 14

2.1 Ageing in New Zealand ................................................................................................................ 15
2.2 History of Participation .................................................................................................................. 20
2.3 Key Stakeholders ........................................................................................................................... 24
2.4 Conclusion ..................................................................................................................................... 28

## 3.0 Literature Review ...................................................................................................................... 29

3.1 Conceptualising Ageing Societies ............................................................................................... 30
3.2 Restrictions .................................................................................................................................... 35
3.3 Opportunities ................................................................................................................................. 41
3.4 Age Friendly Cities ......................................................................................................................... 45
3.5 Conclusion ..................................................................................................................................... 52
4.0 METHODOLOGY ................................................................. 54
  4.1 Research Approach ........................................................... 55
  4.2 Triangulation ....................................................................... 56
  4.3 Ethical Consideration ........................................................... 56
  4.4 Data Collection ..................................................................... 57
  4.5 Secondary Research ............................................................ 58
  4.6 Primary Research ................................................................ 59
  4.7 Reflections on Methods ........................................................ 63
  4.8 Conclusion .......................................................................... 65

5.0 INSTITUTIONAL FRAMEWORK ......................................... 66
  5.1 Chapter Overview ............................................................... 67
  5.2 International ........................................................................ 68
  5.3 National .............................................................................. 69
  5.4 Ministry of Health ............................................................... 74
  5.5 Local .................................................................................. 77
  5.6 Conclusion .......................................................................... 81

6.0 BARRIERS AND OPPORTUNITIES ...................................... 82
  6.1 Barriers .............................................................................. 84
  6.2 Opportunities ..................................................................... 99
  6.3 Conclusion .......................................................................... 110

7.0 KEY STAKEHOLDERS ...................................................... 111
  7.1 Government’s Responsibility or Not? ................................... 112
  7.2 The Green Prescription Programme .................................... 115
  7.3 Conclusion .......................................................................... 119
List of Figures

Figure 1: Age-gender graph of the percentage of adults who participated in regular physical activity in New Zealand in 2006/07 ................................................................. 7

Figure 2: Age-gender graph of sedentary behaviour for adults in New Zealand in 2006/07 ..................8

Figure 3: Age-sex structure of the New Zealand population in 2006 .............................................. 16

Figure 4: Age-sex structure of Dunedin’s population ................................................................. 19

Figure 5: The interconnected determinants of age-friendly cities .............................................. 34

Figure 6: The functional capacity of humans declines with increasing age ...................................... 40

Figure 7: Te Pae Mahutonga Health Promotion Model ........................................................ .... 49

Figure 8: Diagram of the Te Whare Tapa Wha Model .............................................................. 134
List of Tables

Table 1: Older Adults exemplifying how exercise was perceived when they were growing up ........85

Table 2: Older Adults’ attitudes towards those who lacked the motivation to exercise ...............87

Table 3: Poor self-confidence has prevented Older Adults from being physically active .............88

Table 4: How a sick husband can negatively impact their wives’ livelihoods .................................91

Table 5: Council representatives expressing that older people had a respected place within their communities ...........................................................................................................................................94

Table 6: Older Adults’ perceptions of how elderly people could be better informed about opportunities for physical activity in their community .........................................................................................................................96

Table 7: Key Informants’ perceptions of how physical activity is becoming increasingly more recognised, as an important part of people’s later years .................................................................................................................99

Table 8: Older Adults’ perceptions that there were sufficient opportunities for them to be physically active within their communities ...............................................................................................................................................101

Table 9: Outlines other ‘life changes’ which motivated Older Adults to become active .................103

Table 10: Quotations from Older Adults exemplifying that the social element was a key reason for their engagement in physical activity ........................................................................................................104

Table 11: Exemplifying how engaging in physical activity had helped Older Adults manage their existing health conditions ...............................................................................................................................................107

Table 12: Older Adults expressing how imperative physical activity was to manage their arthritis and joint stiffness .........................................................................................................................................................108
**Acronyms**

**ACC**: Accident Compensation Corporation  
**CC**: City Council  
**DC**: District Council  
**GDA**: Getting Dunedin Active  
**GRx**: Green Prescription  
**HEHA**: Healthy Eating, Healthy Action  
**MOH**: Ministry of Health  
**MSD**: Ministry of Social Development  
**NZRA**: New Zealand Recreation Association  
**PHAC**: Public Health Advisory Committee  
**RC**: Regional Council  
**RMA**: Resource Management Act  
**RNZFB**: The Royal New Zealand Foundation of the Blind  
**RSTs**: Regional Sports Trusts  
**SPARC**: Sport and Recreation New Zealand  
**WHO**: World Health Organisation
Māori Definitions

Hapū: Sub-tribe, family group.

Hui: Gathering, meeting.

Iwi: Extended kinship group, tribe.

Kaitiakitanga: Guardianship, stewardship.

Kapa haka: Māori performing/haka group.

Kaumātua: Elder, usually male.

Kaupapa: Topic, theme, policy.

Kāwanatanga: Rule, authority, governership.

Koroua: Elderly man, grandfather, male elder.

Kuia: Elderly woman, grandmother, female elder.

Mana: Prestige, authority, influence.

Marae: Commonly used to mean the meeting house (wharenui) and the surrounding buildings/area.

Mauriora: Cultural identity.

Mirimiri: Massage.

Mokopuna: Grandchild(ren).

Ngā manukura: Leadership.

Papakāinga: Original home, village.

Rangatira: Chief, person of rank.

Rangatiratanga: Sovereignty, chieftanship.

Rite tahi: Equality between Māori and other New Zealand groups.

Tangata whenua: 'People of the land', local people.

Te mana whakahaera: Autonomy.
| **Te oranga:** | Participation in society. |
| **Te taha hinengaro:** | Psychological health. |
| **Te taha tinana:** | Physical health. |
| **Te taha wairua:** | Spiritual health. |
| **Te taha whānau:** | Family health. |
| **Toiora:** | Healthy lifestyles. |
| **Waiora:** | Physical environment. |
| **Waka ama:** | Outrigger canoe, the activity using. |
| **Whānau:** | Extended family, family group. |
1 Introduction

1.1 Background

The World Health Organisation predicts that by 2050 there will be more than 1.2 billion people aged 60 and older throughout the world (WHO, 2008). The New Zealand population, like many other Western countries, is currently experiencing an ageing phenomenon (Davey, 2004; Mummery et al., 2007; Koopman-Boyden and Waldegrave, 2009). In 2006, 12.3% of the population were aged 65 and older which was the highest percentage of older adults living in New Zealand in the nation’s statistical history (Boston and Davey, 2006; Statistics NZ, 2006b; Koopman-Boyden and Waldegrave, 2009). The ageing population is causing a ‘demographic shift’ from generally high mortality and fertility rates, to low mortality and fertility rates (Sinclair, 2004; Davey, 2006; Statistics NZ, 2008; Edwards, 2010).

New Zealand has already started this demographic transformation, however, the largest growth of the population aged 65 and older will happen in the decades ending in 2021 and 2031. During these decades, the anticipated growth will be 223,000 and 276,000 older adults respectively. This is due to the maturing post-World War II 'baby boomers', born between 1949 and 1961, reaching retirement age (Davey, 2006; Statistics NZ, 2008). Statistics New Zealand predicts that in the future this phenomenon will be evident throughout all regions, cities and districts in New Zealand. Although, this will happen at different rates due to variations between places, including factors such as; age structures, migration patterns and fertility rates (Statistics NZ, 2008).
Chapter 1: Introduction

Older people are recognised as a widely diverse group socially, culturally and economically, which creates a demand for their needs to be represented in planning practices in the future (Dannefer, 1996; Boston and Davey, 2006; Age Concern 2007). The older population will generally be wealthier, stay in the paid workforce for longer and enjoy a better quality of life and health, compared to previous generations (MSD, 2011). They will have greater skills, resources and energy to contribute to society, and have a better understanding of technology and cultural diversity (MSD, 2011; Thames-Coromandel DC, 2011; Dunedin CC, 2012a).

However, the rapidly ageing population will have significant social, cultural and economic implications in the future (Chodzko-Zajko et al., 2005; Alpass, 2007; Statistics NZ, 2008; Grant, 2008b). The main areas of concern at the national level will be the future sustainability of the taxpayer-funded superannuation and the increasing costs associated with providing older adults with social welfare, health facilities and disability services (Statistics NZ, 2006a; Statistics NZ, 2008; MSD, 2011). There will also be many planning implications at the local level, to prepare and implement a range of strategies to enable older people to keep their independence and security in their communities (Boston and Davey, 2006).

The health implications of the ageing population are a key area of concern in New Zealand. Transformations in social and physical environments, such as; the workplace, transportation, town planning, digital entertainment, technological innovations and fast foods have largely contributed to the most sedentary society in New Zealand’s history (MOH, 2003; SPARC, 2003b; WHO, 2004; Grant, 2008b). Adults aged 65 and older, have the highest proportion of chronic diseases and disability, and as a group, are the most frequent users of healthcare and medical facilities (Grant, 2008b). They also have a higher prevalence of contagious diseases, and greater mortality and hospitalisation rates (MOH, 2006). Preventative and primary health care is essential to enable older adults to live healthy lifestyles, in order to prolong their life expectancies (Thames-Coromandel DC, 2011).
There is a large range of national and international literature supporting the urgent need for older adults to remain active in their later years (Dwyer et al., 2000; Overdorf, 2005; Grant, 2008b). This includes publications suggesting regular exercise can lead to a variety of health benefits (Chodzko-Zajko, 2000; Daley and Spinks, 2000; Sinclair, 2004; Age Concern, 2012b; Sport Otago, 2012). Others tend to focus on the positive cognitive health outcomes of being active (Laurin et al., 2001; Sinclair, 2004; Wang et al., 2006; Age Concern, 2012b). It is generally understood that being physically active is an important lifestyle decision which enhances people's wellbeing and livelihoods (Andrews, 2002; MOH, 2003; Sinclair, 2004; Allen, 2008).

Over the past decade there have been many intervention studies throughout the world. These have used a variety of strategies to better understand how to encourage older adults to become more active. However, most schemes have usually been ineffective in the long-term. These assessments have generally been based on quantitative research, such as surveys. Consequently, the level of activity reported has returned to baseline after these interventions finish, because older adults will not exercise for health benefits alone (Thurston and Green, 2004; Grodesky et al., 2006; Grant et al., 2007). Grant and Mclean (2011) explained that participation in physical activity must have intrinsic value to older adults, to encourage it to become part of their lifestyles.

In New Zealand, there is no national physical activity strategy aimed specifically to encourage the elderly to become more active (Mummery et al., 2007; Grant 2008b). However, this concept has been indirectly referred to in multiple legislations, policies, strategies and guidelines throughout New Zealand, including; the Positive Ageing Strategy 2001, the Resource Management Act 1991, the Local Government Act 2002, the Health of Older People Strategy 2002 and the Māori Health Strategy 2002.
Chapter 1: Introduction

Sport New Zealand (Sport NZ) is the organisation responsible for monitoring and encouraging sport and recreation within New Zealand (Gillon, 2010; Sport NZ, 2012d). Their vision for New Zealand is: “Everyone. Every day. Enjoying and excelling through sport and recreation” (Sport NZ, 2012b). Sport NZ’s policies and strategies have largely influenced local government/authorities throughout New Zealand, to develop their strategies and plans in relation to encouraging sport and recreation (Gillon, 2010). The Sport New Zealand Strategic Plan explains the future direction of Sport NZ between 2012 and 2015. It stated that Sport NZ aimed to be inclusive, by encouraging all New Zealanders to participate in physical activity:

“We want to encourage providers to develop initiatives for New Zealanders to participate in sport and recreation at all levels, irrespective of their age, race, gender, disability, religion, beliefs, sexual orientation or social background” (Sport NZ, 2012a:16).

The plan also identified that “an ageing population will demand more sport and recreation activities and facilities suitable for older New Zealanders” (Sport NZ, 2012a:5). Sport NZ has made a strategic decision that they will focus on young people, and this is evident through all their published documents. Consequently, this Crown entity has not specifically referred to or targeted older adults (Grant, 2008b). Therefore, there is a demand for more research about older adults’ experiences participating in physical activity in New Zealand (Grant, 2008b). This thesis determines to further explore this notion.
1.2 Rationale

Literature by Grant et al. (2007) explained that there is little knowledge about people's physical activity patterns in their later years. This knowledge is essential to assist in the development of policies and strategies which encourage New Zealanders to live more physically active lifestyles (Grant et al., 2007). Health statistics about older adults' physical activity patterns and behaviours have often been solely reliant on self-reporting national surveys (Allen, 2008; Grant 2008b; MOH, 2008) which are influenced by the level of participant accuracy and honesty to answer questions (Grant and Mclean, 2011). Consequently, there has been little qualitative research carried out to understand the views and perceptions of elderly people about their involvement in physical activity in New Zealand (Corbetta, 2003). This research will address this gap in the literature.

The world’s rapidly ageing population means that it will become even more crucial to encourage older people to live healthy lifestyles (Overdorf, 2005). The majority of older adults are aware of the positive relationship between physical activity and health, however, sedentary lifestyles become more common with increasing age (Chodzko-Zajko et al., 2005; Grant, 2008b). The World Health Report 2002 outlined that the leading catalysts of morbidity and mortality were; obesity, physical inactivity and insufficient consumption of fruit and vegetables (WHO, 2002). This illustrates the crucial need for people to live healthy lifestyles in their later years.

Elderly people can largely benefit from engaging in low-impact forms of exercise, even if they have been sedentary throughout their lives (Grant and Mclean, 2011). Older adults can decrease, postpone or even help prevent age-related decline by being regularly physically active (Dwer et al., 2000; Overdorf, 2005; Grant, 2008b; Sport Otago, 2012). Research by Andrews (2002) showed that half of all cases of functional decline associated with ageing was a consequence of physical inactivity. It is suggested that this decline could have been mitigated through living an active lifestyle. This highlights the importance of ensuring that older adult service providers fulfil the diverse needs of this population group (Southern DHB, 2012b).
The New Zealand Physical Activity Guidelines for adults were developed by the Hillary Commission (now Sport NZ) in consultation with the Ministry of Health in 2001. These identify the minimum amount of physical activity which is required to experience health benefits. The guidelines also provide techniques to encompass incidental physical activity into people's daily lives (MOH, 2012a). These guidelines are highlighted below:

New Zealand adults should (MOH, 2012a):

- View movement as an opportunity, not an inconvenience.
- Be active every day in as many ways as possible.
- Put together, at least 30 minutes of moderate intensity physical activity on most if not all days of the week.
- If possible, add some vigorous exercise for extra health benefits and fitness.

Sport NZ have gauged the level of New Zealanders participation in physical activity through a national survey which has been conducted on a regular basis. The most recently undertaken survey was the New Zealand Health Survey 2006/07 (MOH, 2008). Figures 1 and 2 highlight some findings from this study.
Figure 1: Age-gender graph of the percentage of adults who participated in regular physical activity in New Zealand in 2006/07 (adapted and sourced: MOH, 2008)

Figure 1 above represents the percentage of New Zealand adults who participated in regular physical activity by age group and gender. This survey found that 52.9% of men, and 46.7% of women, aged between 65 and 74 were physically active for 30 minutes or more at least five days a week. The survey showed that being physically active significantly decreased with age. Only 42.9% of men, and 28.7% of women, aged 75 and older were physically active for 30 minutes or more at least five days a week. The survey also showed that only 42% of Māori men, and 38% of Māori women, aged 65 and older were physically active for 30 minutes or more, at least five days a week (MOH, 2008).
The results of the New Zealand Health Survey 2006/07 displayed in Figure 2 above, showed older adults had the lowest self-reported levels of participation in physical activity, compared to younger age groups. The survey found that 11.7% of men, and 16.6% of women, aged between 65 and 74 lived sedentary lifestyles. The prevalence of sedentary lifestyles considerably increased with age. The survey also showed that 24.2% of men, and 37.2% of women, lived physically inactive lifestyles (MOH, 2008). Notably, 21.6% of Māori men, and 19.7% of Māori women aged 65 and older lived sedentary lifestyles (MOH, 2011).
1.3 Aim and Research Questions

The approach taken in any research is guided by the questions being asked. The overall aim of this thesis is to understand older adults’ involvement in physical activity in New Zealand, using Dunedin City as a case study. Dunedin has a population of 122,500 people, it is the second largest city in the South Island, and the eighth biggest city in New Zealand (Dunedin CC, 2012a). Using the case study of Dunedin is beneficial for this research, as it examines how the national ageing population is reflected at the local level. This will provide a focussed study on how future opportunities for physical activity participation can be best delivered within a specific context.

The qualitative nature of the research endeavours to see the social and lived reality through the eyes of older adults, to understand their opinions and feelings about participating in physical activity. This will give the researcher a greater insight about the key barriers to, and opportunities for, older adults’ participation. Priority areas for action will also be identified through interviews with planning professionals working within local councils, and employees in the sport and health industry. Interviews will gauge how the current planning system in New Zealand is enabling older adults to participate in physical activity, and what services and resources are currently designated to increase and maintain this participation.

There is compelling evidence which suggests that regular participation in physical activity can lead to a range of health benefits for older Māori adults (Cunningham, 2000; Robson and Harris, 2007; MOH, 2011). A particular focus in this research is the tangata whenua, because they face a number of health disparities compared to other New Zealanders. The Māori ethnic group have a significantly higher prevalence of diabetes, high blood pressure, cardiovascular disease, cancer rates and have shorter life expectancies compared to non-Māori New Zealanders (MOH, 2006; MOH, 2011). Regular participation in physical activity can enhance Māori people's health, nutrition and smoking cessation, leading to an improvement in their overall quality of life (MOH, 2003).
This study endeavours to guide the formation of future legislation, plans and strategies and inform Government and policy makers, sport and recreation providers, and health and social services to increase the number of older adults who are regularly active in New Zealand. To achieve this research aim, the following five research questions have been formulated:

1. **What are the key barriers to, and opportunities for, engagement in physical activity for older adults in New Zealand?**

2. **What services and resources are currently provided to encourage older adults to participate in physical activity in New Zealand?**

3. **To what extent does the current planning system in New Zealand enable older adults to participate in physical activity?**

4. **To establish how older Māori adults have been encouraged to be physically active in New Zealand?**

5. **How can the ageing population in New Zealand be planned for at the local level, in relation to providing future opportunities to be physically active?**
1.4 Defining Key Concepts

There are four primary concepts that will be used throughout this thesis: older adults, physical activity, exercise and physically active older adults. These terms may have different meaning between various organisations, types of literature and disciplines.

In this research an ‘older adult’ refers to a person who is aged 65 and older. Statistics New Zealand applies this definition, as it is the age of eligibility for the New Zealand Superannuation (Age Concern, 2007). However, ‘age’ is a relative term (Dwyer et al., 2000). The Ministry of Health (2002a:5) explained that ‘age’ can be measured in four different ways. These include ‘chronological age’ which is determined by birth date; ‘biological age’ which is established by physical changes; ‘social age’ which is based on societies expectations of older people; finally ‘psychological age’ which is determined by how older adults feel inwardly (MOH, 2002a). In New Zealand an individual’s ‘chronological age’ is generally the method used to determine who has access to services. Therefore, for the purposes of this research, this same measure will be used to define an older adult (MOH, 2002c).

‘Physical activity’ is defined as participation in sporting and recreational activities which have an element of ‘exercise’. Exercise will be used interchangeably with physical activity and is defined as a “planned and repetitive body movement, which improves or maintains one or more components of physical fitness, such as cardiovascular endurance, muscular strength, balance and flexibility” (Ecclestone and Jones, 2004: 469). Physical activity encompasses all activities which involve body movement produced by skeletal muscles that cause energy expenditure, ranging from low to high intensity actions (Ecclestone and Jones, 2004; MOH, 2008; WHO, 2010a). Exercise has multiple dimensions including; type, intensity, frequency and duration (MOH, 2003). For the purpose of this research thesis, a ‘physically active older adult is someone aged 65 and older, who fulfils the New Zealand Physical Activity Guidelines of participating in physical activity for at least 30 minutes most days (MOH, 2008).
1.5 Thesis Structure

Chapter One has introduced the context of the ageing phenomenon in New Zealand, the older Māori population and introduces Dunedin, which will be used as the main case study city for the research. It also explains the rationale for the study, the questions the research will address and defines the key concepts which will be used throughout this study.

The following seven chapters will include:

Chapter Two will provide a contextual analysis of New Zealand's rapidly ageing population, a history of older adults' participation in physical activity and the key stakeholders which have encouraged them to be physically active.

Chapter Three will examine the theoretical foundation for this thesis, providing an overview and a critique of the literature surrounding the topics of; conceptualising older adults, the key barriers and opportunities to participation in physical activity and the key characteristics of age friendly societies.

Chapter Four will outline and justify the selected research approach, the methods that were employed and the strategies which were undertaken.

Chapter Five consists of a comprehensive overview and analysis of specific international, national and local plans, strategies and guidelines. This will provide a greater understanding of the legislative and policy context of this study.

Chapter Six will present the first of the four discussion chapters. It will examine the key barriers to, and opportunities for, engagement in physical activity through the experiences of older adults in Dunedin.
Chapter Seven is the second of four discussion chapters. It will illustrate the ambiguity which exists about what organisation is responsible for older adults to be physically active in New Zealand.

Chapter Eight is the third of four discussion chapters. It will analyse how the contemporary planning system in New Zealand has enabled older adults to participate in physical activity.

Chapter Nine is the final discussion chapter. It will provide recommendations how the ageing population in New Zealand can be best planned for at the local level and relevant national level recommendations, in relation to opportunities for physical activity.

Chapter Ten will conclude the thesis by summarising all the key findings found in the previous chapters. This is followed by identifying limitations inherent in the conclusions and recommendations for future study undertaken to encourage older adults to be physically active in New Zealand.
This chapter outlines the contextual elements that are important to take into consideration when conducting research. It will extend this knowledge, by examining the demographics of the rapidly ageing population in New Zealand, including; age, gender, ethnicity and the important role of older Māori adults. It then investigates the history of organisations responsible for older adults' participation in physical activity, including a discussion about; The Hillary Commission, Sport and Recreation New Zealand, Sport New Zealand and Regional Sports Trusts, along with various campaigns and programmes.

The actions of key stakeholders which are currently encouraging older adults to be active will then be discussed, including; the Ministry of Health, the Ministry of Social Development, the Accident Compensation Corporation and the New Zealand Recreational Association. The recognised value of physical activity has also resulted in numerous subsidised programmes and services, which have incorporated exercise to fulfil the needs of the ageing population. The Royal New Zealand Foundation of the Blind and Age Concern will also be investigated.
2.1 Ageing in New Zealand

Investigating the demographics of older adults living in New Zealand is imperative for explaining the present and future wellbeing of the ageing population (Mummery et al., 2007). In 2009, life expectancy was 78.4 years for males and 82.4 years for females. The 2010 Social Report highlighted that between 1960 and 2009 life expectancy at birth increased 16.4 years for males and 7.4 years for females (MSD, 2010). Therefore, life expectancy has become more equal between genders over time.

This increase in life expectancy has meant that older adults entering retirement have many more quality years left to enjoy life. This gives them more opportunities to undertake different activities to improve their health and wellbeing (Christchurch CC, 2011; MSD, 2012b). Grant (2008b) suggested that although many older people in New Zealand are strongly involved in taking part in recreational programmes and community-based activities, the overall proportion of older adults who are regularly physically active is low.

The ageing population is a growing phenomenon (Office for Senior Citizens, 2005). By 2025, the number of adults aged 65 and older is estimated to consist of 20% or more of New Zealand’s population (Alpass et al., 2007). This is expected to increase to 25% in the late 2030s (Statistics NZ, 2008). The number of these older adults is predicted to escalate from half a million in 2005, to 1.33 million in 2051 (Office for Senior Citizens, 2005; Statistics NZ, 2008) and 1.44 million in 2061 (Statistics NZ, 2007).

Within the ageing population the fastest growing age cohort is estimated to be those aged 85 and older (Office for Senior Citizens, 2005; Mummery et al., 2007; Grant 2008b; Statistics NZ, 2008). Statistics New Zealand (2007a) estimated that by 2021 there will be more people in this age cohort, compared to children under the age of 15 years. In 2006, 12% of older adults were aged 85 and older, and by 2051 this is predicted to double to 24%. This means by 2051, there will be more than 320,000 people aged 85 and older in New Zealand (Office for Senior Citizens, 2005; Statistics NZ, 2008). This will have multiple health implications in the future, as this age group has the highest levels of moderate and severe disabilities (Age Concern, 2007).
Due to the difference in mean life expectancy, elderly females are more common than their male counterparts. Figure 3 shows the age-sex structure of the New Zealand population in 2006.

**Figure 3**: Age-sex structure of the New Zealand population in 2006 (adapted and sourced: Statistics NZ, 2006d)

Figure 3 shows that in 2006, 45% of males and 55% of females were aged 65 and older. This translates to a ratio of 1.25 women for every man aged 65 and older, and this proportion increased with age. However, this ratio has been predicted to decrease to 1.16 by 2025 (Statistics NZ, 2008). It is the female population, therefore, who currently spend more years experiencing an age-related disability and requiring greater assistance. Davey (2004) stated that women spend 7.6 years with a disability, compared with 6.2 years for men. This means there must be suitable planning and services provided to fulfil elderly women’s needs in the future (Davey, 2004).
Currently, the older population is less ethnically diverse than younger age groups due to variations in fertility, mortality and migration rates. Therefore, non-European ethnic groups will take longer to age (Office for Senior Citizens, 2005; MOH, 2006; Statistics NZ, 2008). However, the older adult population has been estimated to become more ethnically diverse when people of Māori, Asian and Pacifica descent reach retirement age (Edwards, 2010). This will have significant policy and resource implications, especially on health and social services in the future (Dwyer et al., 2000).

In the 2006 Census, there were 565,329 people who identified with the Māori ethnic group living in New Zealand. This is equivalent to 14.6% of New Zealand’s population belonging to the Māori ethnic group (Statistics NZ, 2007). The proportion of Māori aged 65 and older has been anticipated to increase from 4.1% in 2006 to 13% by 2051 (Age Concern, 2007). This may cause further disparities between the distributions of; health, social, economic, environmental, cultural and political resources between Māori and non-Māori throughout New Zealand (Cunningham, 2000; Robson and Harris, 2007).

In 2006, the gap in independent life expectancy at birth between Māori and non-Māori was 6.8 years for males, and 6.2 years for females (Statistics NZ, 2008). Older Māori men are twice as likely to suffer from obesity, compared to non-Māori males in the same age group. Similarly, older Māori females are 1.5 times more likely to suffer from this, than older non-Māori women (MOH, 2011). Māori adults aged 65 and older also have higher mortality and hospitalisation rates for cardiovascular diseases compared to other New Zealanders (MOH, 2011). Sedentary lifestyles have increased the likelihood of older Māori people experiencing poor health in their later years. Consequently, sedentary tangata whenua are less involved in their communities (Dwyer et al., 2000).
Chapter 2: Context

The Māori worldview is generally holistic, where individuals’ social, spiritual and physical environments are intimately connected to their whānau, hapū and iwi. Māori people are more likely than non-Māori to live in family arrangements (Dwyer et al., 2000; Edwards, 2010). Whānau is the foundation for Māori people, which is a supply of their strength, safety and identity, which play a fundamental role for their individual and collective wellbeing (MOH, 2003). Traditionally, older tangata whenua have been highly valued, because as they age their prestige or mana increases significantly in their whānau, hapū and iwi (Age Concern, 2007). Therefore, Māori people generally see ageing as a positive life course transition (Statistics NZ, 2006a; Edwards, 2010). Edwards (2010) explained that Māori people often experience greater community expectations as they age, and generally receive greater whānau support during this time.

Koroua and kuia have been fundamental to fulfil a range of different roles, such as; formal speaking on behalf of a tribal group, conflict resolution and providing leadership and stability to their communities. They have also facilitated the intergenerational transfer of; language, history, tribal customs and culture, which has enhanced their communities and their own individual wellbeing (Dwyer et al., 2000; Edwards, 2010). Therefore, opportunities for older Māori adults to be physically active must be provided in a whānau, hapū and iwi based context to maximise their involvement (Edwards, 2010). This thesis will establish how older Māori adults have been encouraged to be physically active in New Zealand, and methods to increase this behaviour.
2.1.1 Case study of Dunedin City

Dunedin City will be used as the case study city for this research. There are more people aged 65 and older living in Dunedin than the national average, making Dunedin a statistically appropriate case study locality (Dunedin CC, 2012a). Figure 4 below shows the age-sex structure on Dunedin’s population in the 2006 Census.

Figure 4: Age-sex structure of Dunedin’s population (adapted and sourced: Statistics NZ, 2006c)

Figure 4 above shows that in 2006, 13.4% of the population who lived in Dunedin were aged 65 and older, in comparison with 12.3% which is the national average of older adults living in other parts of New Zealand (Statistics NZ, 2006c). The population in Dunedin is estimated to increase by 4% between 2011 and 2031. However, during this time the population aged 65 and older has been predicted to increase by 5.4% (Dunedin CC, 2012a).

The older Māori population in Dunedin is disproportionally lower compared to the national average. In 2006, 6.4% of the Dunedin population were aged 65 and older, compared with 14.6% of the national population. It was also a relatively young population, where only 3.2% of the Māori population were aged 65 and older, compared with 4.1% which was the national average (Statistics NZ, 2006c).
Chapter 2: Context

2.2 History of Participation

2.2.1 The Hillary Commission

The former Hillary Commission was an independent statutory body that was established through the Sport, Fitness and Leisure Act 1987 to develop and encourage sport, fitness and physical activity. The KiwiSeniors programme was a physical activity initiative which was established in the late 1990s by the Hillary Commission, to fulfil the physical activity needs of older members in their local communities.

There are seventeen Regional Sports Trusts (RSTs) throughout New Zealand who are contracted by Sport NZ to increase their regional physical activity participation rates (Sport NZ, 2012b). The KiwiSeniors programme was supported and facilitated by KiwiSenior co-ordinators that were based in the seventeen RSTs nationwide (Hillary Commission, 2000).

The programme co-ordinators generally worked in partnership with their own local authority or fitness centres, to run a variety of programmes with an element of physical activity for the older adults in their communities. Programmes included activities such as; walking, aquafitness, line-dancing, marching, table tennis, badminton, gentle exercises, Tai Chi and circuit training. This initiative also ran annual ‘Rest Home Games’ where a number of rest homes competed against each other in a variety of low impact sports. In 1998, approximately 15,500 New Zealanders aged 50 and older were taking part in over 650 activities run by KiwiSeniors programmes throughout New Zealand. Many of these programmes eventually became financially independent (Hillary Commission, 2000).

The Hillary Commission also presented three 50 Forward television series in 1992, 1993 and 1994. These were between ten to twenty-four weeks in duration and encouraged people aged 50 years and older to become more physically active. Television shows featured information specifically targeted at older people, such as low-impact exercises and health and financial advice. It also provided a hotline for listeners to find further information about physical activity opportunities available in their local communities (Hillary Commission, 2000).
Between 1992 and 1996 the Hillary Commission made funding available to every RST nationwide to encourage adults aged 45 and older to trial or continue participating in a physical activity. A range of sports were undertaken under this funding, including; hockey, pistol shooting, orienteering, ice skating, yachting, basketball and hang-gliding. During this time, the Hillary Commission also published a booklet entitled *Is Your Sports Club Actively Ageing?* This was to encourage sport clubs to cater more ably to fulfil the needs of their senior members. The Hillary Commission also hosted numerous workshops throughout New Zealand to educate service providers about the importance of older people being physically active (Hillary Commission, 2000).

### 2.2.2 Sport and Recreation New Zealand

The Hillary Commission was dissolved and Sport and Recreation New Zealand (SPARC) was established as a Crown entity under the Sport and Recreation New Zealand Act 2002 (Ministry of Justice, 2012). SPARC was established under section 2 of this Act to “promote, encourage and support physical recreation and sport in New Zealand...” (SPARC, 2011). This Act has placed a strong emphasis on involving all New Zealanders in sport and recreation for their “health and wellbeing”. In section 8 of this Act the importance of encouraging the involvement of “Māori, Pacific peoples, women, older New Zealanders and people with disabilities” in physical activity is emphasised (Grant 2008b).

However, at the time of establishment, SPARC did not carry out any physical activity programme explicitly for older adults, but in 2005 this Crown entity established the ‘Push Play’ campaign. This was a national physical activity initiative to inspire all New Zealanders to be physically active for at least 30 minutes a day. The campaign was marketed through promotional material and advertisements incorporating people from a variety of ethnicities and age groups to be inclusive. Promotional material included television and radio advertisements, and imagery included pictures in; magazines, newspapers, billboards and on the internet of older adults being active. The campaign was dissolved in 2008 when SPARC changed their mandate from encouraging physical activity, to focus more on organised participation in team sports and recreational activities (Sport NZ, 2012c).
2.2.3  Sport New Zealand

Sport NZ replaced SPARC in 2012 and is currently the organisation responsible for monitoring and encouraging sport and recreation within New Zealand (Gillon, 2010; Sport NZ, 2012d). The Sport New Zealand Strategic Plan includes the five ‘key pillars’ of Sport NZ’s work. These include; young people, recreation, community sport, improving capability to the recreations sector and high performance sport. These focus areas have been reflected in RSTs’ strategic plans, which has enabled Sport NZ’s mandate to be promoted throughout New Zealand (Sport NZ, 2012a).

Since 1998, the GRx programme operated through Sport NZ and has helped sedentary people with existing medical conditions or those who are at increased risk of developing one. GRx clients are first referred by their own health practitioner, to a representative from their local RST. RSTs have worked directly with patients to setup personalised physical activity programmes, and have provided personal support for their clients (SPARC, 2012). Grant (2008b) argued that, with the exception of the GRx programme, Sport New Zealand’s plans and strategies have given little consideration to older adults. This non-inclusive approach has meant that older adults are even less likely to participate in physical activity than younger age groups (Gillon, 2010).
2.2.4 Regional Sports Trusts

As mentioned above, there are seventeen RSTs throughout New Zealand who are contracted by Sport NZ to increase their regional physical activity participation rates, and enhance sport and recreational facilities (Sport NZ, 2012b). Sport Otago is the RST for Dunedin, the case study locality for this research. Sport Otago is an example of a RST, which is the representative authority of Sport NZ in the Otago Region. Sport NZ provides outcomes they want Sport Otago to fulfil, and they have been funded according to meeting these outcomes. Sport Otago’s mission is: “To provide leadership and expertise, enabling Otago people to lead healthy, active lives”. To fulfil their vision: “All Otago people being physically active” (Sport Otago, 2011).

Sport Otago has three goals, which are: (Sport Otago, 2011)

- **To increase the number of people living physically active lifestyles.**
- **To improve the quality of sport and recreation delivery systems at all levels.**
- **To provide direction and alignment to sport and recreation strategies and decision making.**

Sport Otago have been responsible for building and maintaining strong relationships with local authorities, and other organisations which promote active and healthy communities within the Otago region. However, in 2012 Sport Otago had no schemes directly targeted at older adults, despite Dunedin having more people aged 65 and older than the national average (Sport Otago, 2011).

Sport Otago also does not offer any programmes specifically directed at the Māori population. This is an issue because the New Zealand population is simultaneously ageing and diversifying (Grant, 2008b). However, Sport Otago has a good working relationship with Māori health organisations, such as *Te Hou Ora* and *Arai Te Uru*. These groups have provided sport and recreational
opportunities for the *tangata whenua* in the Otago region. This working relationship with existing *Māori* community groups has prevented Sport Otago from replicating programmes which are currently being delivered. This is important, because *Māori* people often respond best to services which have been delivered by their own people (Edwards, 2010). This is important to consider when encouraging older *tangata whenua* to be physically active.

### 2.3 Key Stakeholders

#### 2.3.1 The Ministry of Health

The Ministry of Health (MOH) is a Government agency which provides guidance to the Government on health and disability matters, to enhance and protect the health of New Zealanders. There are a number of initiatives within the MOH which represent the interests of the elderly. These have directly and indirectly encouraged older adults to become more physically active (MOH, 2012b). The MOH is a policy body and has a number of strategies which have encouraged older adults to become more active, these will be discussed in further detail in Chapter 5. The Health Promotion Agency was established by the MOH in July 2012 to deliver programmes that promote healthy lifestyles, and disease and injury prevention. This agency assumed the functions of the Health Sponsorship Council, which formally delivered services to promote healthy lifestyles (MOH, 2012c). Currently, uncertainty exists about the importance of physical activity to this agency, due to it having such a wide range of priorities (Health Promotion Agency, 2012).
2.3.2 The Ministry of Social Development

The Ministry of Social Development (MSD) is the Government agency which has helped individuals, families and communities improve their livelihoods through social, cultural and financial assistance (MSD, 2012e). This agency has found there are impediments which have prevented elderly people from engaging in their communities, and have endeavoured to ensure that they receive a secure income and accessible services and information (MSD, 2011). The MSD website demonstrates how local government agencies have fulfilled a variety of positive ageing initiatives, which have enhanced the wellbeing of older New Zealanders (MSD, 2012f).

This Government agency oversees the New Zealand Superannuation fund, which every New Zealand citizen is eligible for once they turn 65 years old. This is a fixed, regular income which is guaranteed for the rest of their lives. This superannuation has no contributory element, meaning people who have had broken work patterns during their lives receive the same entitlement as those who have worked throughout their life. Consequently, people who have had adverse life experiences are less likely to be economically disadvantaged in their later years.

The SuperGold card is managed by Senior Services in the MSD. Every New Zealand citizen who qualifies for the New Zealand Superannuation is eligible for a SuperGold card (Firth et al., 2012; Super Gold, 2012). The MSD has 570,711 SuperGold card holders, and 1,338 SuperGold card partners who represent 5,625 business outlets throughout the country (MSD, 2012e). This card has given older adult recipients free use of public transport during off-peak times and cheaper access to pools, council facilities and sport and recreational facilities. This has increased the number of older adults utilising these services as a result of this initiative (Firth et al., 2012; Super Gold, 2012).
2.3.3 Accident Compensation Corporation

The Accident Compensation Corporation (ACC) has provided complex, personal injury cover for citizens, residents, and temporary visitors who have experienced injuries in New Zealand. The ACC produced a *Standing up to falls* guide for older adults to reduce the likelihood of them having a fall at home, and information how they can be prepared if they have a fall (ACC, 2012). A study by Day et al. (2002) showed that regular participation in Tai Chi led to a 55% reduction in falls experienced by participants aged 70 and older. Therefore, this organisation also funded a modified Tai Chi injury prevention programme for older people, to improve their balance and co-ordination, and decrease the likelihood of them having a fall. These programmes were run throughout New Zealand and were very successful encouraging sedentary older people to become physically active. This started in 2010 and funding was withdrawn 2012 (ACC, 2012).

2.3.4 The New Zealand Recreation Association

The New Zealand Recreation Association (NZRA) is a non-profit member organisation which has encouraged individuals and organisations to participate in recreation and sport. Members have generally been involved with organisations such as; RSTs, territorial local authorities, voluntary organisations, recreational planners and facility managers. This organisation has indirectly encouraged older adults to become more physically active by working with local authorities throughout New Zealand, to help them make sport and recreation more accessible and affordable to their communities (New Zealand Recreation Association, 2012).

The NZRA has run forums every quarter for both metropolitan councils and provincial councils. These have discussed the various sport and recreation issues which are occurring at the local government level. The ageing population in New Zealand has been a popular discussion topic (New Zealand Recreation Association, 2012). The NZRA has worked with national sports organisations and challenged them to cater more ably to fulfil the needs of their senior members. This has ensured that sport organisations do not solely focus on the high performance end of these activities.
The NZRA has financially supported RSTs and has encouraged them to make submissions to their respective local authorities about making services more accessible and affordable to the public (New Zealand Recreation Association, 2012).

2.3.5 The Royal New Zealand Foundation of the Blind

The Royal New Zealand Foundation of the Blind (RNZFB) is a not-for-profit charitable trust. It is the main provider of vision loss services in New Zealand. In 2012, 70% of their membership was aged 65 and older, and this was the fastest increasing age group (RNZFB, 2012). The RNZFB has run a number of one day initiatives which have encouraged older adults to get outside of their comfort zones and be active. Activities have included; tramping, swimming and ten pin bowling. This organisation has also provided a number of groups and classes involving; walking, gardening and yoga, which have been particularly popular amongst older adults (RNZFB, 2012).

2.3.6 Age Concern

Age Concern is a national organisation that promotes the rights and livelihoods of older adults. They have advised and offered services to older adults and their caregivers through a federation of Age Concern councils throughout New Zealand. This charitable trust has a vision for New Zealand to be: “An inclusive society where older people, koroua and kuia are respected, valued, supported and empowered”. This organisations work and services have been founded on the following principles; dignity, wellbeing, equality and cultural respect (Age Concern, 2007). Age Concern Otago is one of the thirty-three Age Concern councils throughout New Zealand, and has offered a number of subsidised exercise programmes to encourage older adults to be independent and to maintain and improve their mobility. This has enhanced their health, livelihoods and physical fitness (Age Concern, 2012a).
2.4 Conclusion

An in-depth knowledge of the context of this research is important to have a greater understanding of the cultural, social and legislative elements to the scope of the research (Sandercock, 2005). This chapter has investigated the demographics of the rapidly ageing population in New Zealand. It also examined the history of what organisation has been responsible for encouraging older adults to be active. Furthermore, the functions of key stakeholders and community organisations which have facilitated older adults to be physically active were discussed. This included an analysis of; the Ministry of Health, the Ministry of Social Development, the Accident Compensation Corporation, the New Zealand Recreational Association, the Royal New Zealand Foundation of the Blind and Age Concern. The following chapter identifies the theoretical basis for this thesis, providing an overview and a critique of the literature surrounding older adults’ participation in physical activity in New Zealand.
Due to the ageing population in most Western countries, there has been much research undertaken about conceptualising ageing societies. In the past, older people have been frequently portrayed as; frail, dependent, unwell and financially insecure. Gradually, more critical and humanistic approaches have emerged, and consequently, new theories about positive ageing, active ageing and the Third Age have emerged, which will be discussed in this chapter.

Furthermore, it will also be demonstrated that a number of barriers exist at the personal, community and national levels, which have restricted older adults from being regularly physically active. These include both ‘real’ and ‘perceived’ barriers, which vary in their effect between individuals (Thurston and Green, 2004; Koopman-Boyden and Waldegrave, 2009). This chapter will also examine how physical activity has enhanced older adults’ social connectivity, psychological wellbeing and physiological health.

It is an international public health issue to plan neighbourhood environments to encourage physical activity (Bauman and Bull, 2007). The physical environment of urban areas has strongly influenced residents’; mobility, safety, crime perceptions, health and participation in society. This has both directly and indirectly affected the extent they participate in physical activity (WHO, 2007). This chapter will highlight the key features which are important to promote and facilitate designing age-friendly urban areas. These characteristics include; public and active transport, inclusive environments, safety and amenity, mixed density and mixed land use, and parks and open spaces.

This review will establish a theoretical framework for the research topic and place the study into context. As there is a limited amount of planning information about older adults and physical activity, this chapter will also draw on literature from psychology, medicine and human geography.
This review will fulfil a number of purposes. First, it will identify, in a New Zealand context, how ageing populations are conceptualised. Second, it will discuss key restrictors to, and opportunities for, older adults’ participation in physical activity. Finally, it will examine the key characteristics fundamental for building age-friendly cities. The literature review will identify strengths and weaknesses in the planning knowledge base in New Zealand, and influence the direction of the primary research.

3.1 Conceptualising Ageing Societies

3.1.1 Deconstructing Ageing Stereotypes

There is an insufficient amount of analytical perspectives on ageing. In the past, scientific and positivist viewpoints have generally been most prevalent in ageing research, where the researcher has been perceived as the ‘expert’ and the participant has been the ‘object’ (Harper and Laws, 1995; Mansvelt, 1997). Pain (1997) argued that using a humanistic approach in research involving older adults has encouraged ageing stereotypes to be deconstructed. The qualitative nature of this study will enable the researcher to understand, interpret and investigate the authenticity of social phenomena. This will challenge historical gaps in the literature by empowering traditionally oppressed social groups, such as older adults (Corbetta, 2003). Sandercock (2005) explained that personal opinions and stories give planners a greater understanding of individuals' circumstances, and facilitate urban conditions that encourage social inclusion.

When conceptualising ageing societies and older adults, there have been significant variation between theories, especially in relation to what is ‘normal’ ageing, and the definition of being ‘old’ (Estes et al., 2003). Over the past fifty years, the biomedical and welfare features of ageing were most prevalent, which were founded on pathology and aimed to reduce mortality (Grant, 2008b).
However, gradually there have been more critical studies which have caused a paradigm shift. These studies have focused on enhancing health through individuals' lifestyle decisions, such as being regularly physically active (Koopman-Boyden and Waldegrave, 2009).

This has caused notions such as ‘positive ageing’, ‘active ageing’ and the ‘Third Age’, discussed in greater detail below. These concepts explain parts of older adults' behaviour, however, they are limited because they only discuss a part of what ageing actually is. When more knowledge is discovered, these theories will be revised and updated. Therefore, it is important to understand why things do, and do not happen, and what can be learned from this (Grant, 2008a).

3.1.2 Positive ageing

Positive ageing is an international, multi-dimensional notion, comprised of both objective and subjective measures (Fernández-Ballesteros, 2011). Those who promote positive ageing have strived to decrease the occurrence of ageism, to value and respect older adults' valuable participation in the community (Davey, 2006; Grant 2008b). This concept has identified that older adults are important members in society, who have a wide range of skills, knowledge and experiences which can enhance their families and communities. This approach has improved the awareness of the diverse needs, capabilities and contributions of people in their later years. Positive ageing can only take place in an environment that is age friendly, which provides accessible programmes and services to fulfil their diverse needs and interests (National Seniors Council, 2012).

Positive ageing has no one definition (Chong et al., 2006). From a semantic point of view, positive ageing means benefitting from a number of experiences during people's later years, including; excellent physical fitness and health, optimal cognitive functioning, stable emotional wellbeing, active social participation, support from whānau and friends and financial independence (Chong et al., 2006; Fernández-Ballesteros, 2011).
Positive ageing has been part of many health and disability policies in New Zealand, including the New Zealand Positive Ageing Strategy 2001 (Davey, 2006; Grant 2008b). This strategy identified that to age positively and actively, older adults need to live in safe and supportive environments which are echoed by the positive ageing principles. These are highlighted below.

Effective positive ageing practices will: (MSD, 2012c)

- **Empower older people to make choices that enable them to live a satisfying life and lead a healthy lifestyle.**
- **Provide opportunities for older people to participate in and contribute to family, whānau and community.**
- **Reflect positive attitudes to older people.**
- **Recognise the diversity of older people and ageing as a normal part of the lifecycle.**
- **Affirm the values and strengthen the capabilities of older Māori and their whānau.**
- **Recognise the diversity and strengthen the capabilities of older Pacific people.**
- **Appreciate the diversity of cultural identity of older people living in New Zealand.**
- **Recognise the different issues facing men and women.**
- **Ensure older people, in both rural and urban areas, live with confidence in a secure environment and receive the services they need to do so.**
- **Enable older people to take responsibility for their personal growth and development through changing circumstances.**

It is suggested that these principles guide the formation of future legislation and services throughout the government sector, which will ultimately influence regional and local planning decisions. This concept is also important to enhance older adults’ independence, participation in the paid workforce, health and wellbeing. The combination of these factors will both directly, and indirectly, increase older adults’ participation in the community and physical activity (Ertel et al., 2008).
3.1.3 Active Ageing

Active ageing is a diverse concept that has encouraged older people to understand their physical, social and mental potential to participate in society, while giving them sufficient protection, security and care if required (Stenner et al., 2010). The World Health Organisation (WHO) is a specialised agency of the United Nations that is responsible for providing leadership on international health concerns (WHO, 2012b). The WHO defined active ageing as: “The process of optimising opportunities for health, participation and security in order to enhance people's quality of life as they age” (WHO, 2007:5).

Active ageing has encouraged older adults to continue participating in activities for a long as possible, and when physically unable to do so, substituting these activities with suitable alternatives (Estes et al., 2003; Lucas, 2004). Cannunscio et al. (2003:395) explained that successful active ageing has been threatened by: “social isolation, financial insecurity, lack of stimulating interactions and the loss of mobility and transportation”. There must be suitable planning in place, to overcome these barriers to enable older adults to participate actively and openly in society.

Figure 5 addresses the eight key domains of age-friendly cities that allow older adults with different needs and abilities to live in safe environments, good health and participate in their communities. All these factors are fundamental to make elderly people feel secure in their social environments, subsequently, increasing their participation in physical activity.
Figure 5: The interconnected determinants of age-friendly cities (adapted and sourced: WHO, 2007)

Figure 5 highlights that the eight key domains of age-friendly cities. These include; transportation, housing, social participation, respect and social inclusion, civic participation and employment, communication and information, community support and health services, and outdoor spaces and buildings. These eight key domains will encourage age-friendly cities which will be discussed in greater detail in Section 3.4 (WHO, 2007). These factors should be taken into consideration when planning and developing for older adults to be physically active.

This is an appropriate theory for adults who reach 65 years and are relatively healthily. However, Holstein and Minkler (2007) argued that active ageing ignores older adults who are experiencing adverse life situations. This could potentially hinder their identity and self-worth. They argued that concepts of active ageing have the potential to “hold implicit normative standards” which could devalue “those who do not live up to their own ideals” (Holstein and Minkler, 2007:16). This will consequently mean adults who experience these adverse life circumstances, or are unable to live up to their own or others ideals of the amount of exercise they should be doing, may experience significant discrimination from society.
3.1.4 Third Age

The notion of the Third Age also models a positive view of ageing. This theory has encouraged older adults to be perceived more positively and has challenged negative stereotypes of elderly people (Cannunscio et al., 2003). It also argues that older adults live in the ‘Third Age’ or in their third stage of life. This is in contrast to the Fourth Age, which is founded on dependency. During this time, older adults have numerous opportunities to live fulfilling lives through participating in rewarding activities like physical activity (Townshend, 2002). This research will now identify barriers to, and opportunities for, physical activity, to enable older people to live more fulfilling lives.

3.2 Restrictions

3.2.1 Impact of Early Life

People aged 65 to 84 years in 2012, grew up during the Great Depression, the Second World War and/or the post-war period. Throughout this economically challenging period, there were limited opportunities for children and young people. For example, the school curriculum offered students a limited selection of physical activities to be involved with (Koopman-Boyden and Waldegrave, 2009).

When older adults were growing up, exercising for ‘health reasons’ or for the ‘sake of it’ was considered unnatural (Grant et al., 2007; Grant, 2008b). During this time, older people were advised to ‘take it easy’, where inactivity and rest were believed to be fundamental for successful ageing (Grant, 2008b). This suggests that the contemporary generation of elderly people have not been ‘socialised’ to be physically active.

Older adults have generally continued participating in activities when they have had the security and reassurance of engaging in these in their earlier years (Nimrod and Kleiber, 2007). Lack of knowledge, fear of the unknown and previous negative experiences have discouraged older people...
from exercising (Rasinaho et al., 2007). Participation in physical activity is often dependent on personal life experiences and skills acquired in younger years. This may explain why there is a small proportion of active older adults in contemporary society.

Elderly gentlemen are more likely to be physically active, due to many social alludes. Historically, the New Zealand culture made it socially desirable for men to exercise. Men dominated access to the majority of sport-related activities and facilities established by national sports associations, such as; rugby, football, rowing, athletics and alpine climbing. More ‘home-based’ activities, such as; arts and crafts, flower arranging and knitting, were considered to be more ‘appropriate’ for women (Koopman-Boyden and Waldegrave, 2009). These barriers will be examined in this research as hindrances to elderly people being physically active.

3.2.2 Entering the 21st Century

Transformations in the social and physical environments, such as transportation, town planning and technological innovations, have largely contributed to the high proportion of sedentary older adults in New Zealand (MOH, 2003; WHO, 2004; Grant 2008b). Grant (2008a) argued that trying to change sedentary behaviour in later life has been challenging, because many believe that they are already ‘fit enough’ and healthier than others their own age. This is despite this age group having the highest percentage of chronic diseases, disability and utilisation of health care services (MOH, 2002c).

Grant et al. (2007) explained that there is significant discord between the ‘social-cultural’ and ‘empirical’ definitions of being physically active and in optimal health. For example, many older adults claim that they are physically active and healthy in their day-to-day living, and therefore, believe being deliberately active is unimportant. However, this is inconsistent when matched alongside the scientific definition of being physically active for optimal health. This suggests that these definitions have different socially and culturally constructed meanings. Consequently, there is ambiguity in the public’s knowledge about how much physical activity an individual should participate in to enhance their health and wellbeing (Grant et al., 2007).
3.2.3 Motivation and Perceived Capabilities

As people age, they often change the way they perceive their opportunities and limitations (Grant et al., 2007). A study by Davey (2004) showed that as people aged their self-assessed health status declined. The mindset of older people believing that they lack the physical and mental capability to exercise was widely prevalent in the literature (Daley and Spinks, 2000; Rasinaho et al., 2007; Koopman-Boyden and Waldegrave, 2009; Grant and Mclean, 2011). Research New Zealand (2012) showed that 21% of adults aged 65 and older stopped following the GRx programmes physical activities, because they ‘lacked energy’ or were ‘too tired’. Further research indicated that 17% of older adults stopped because they found it too hard to ‘getting into a routine’ for their exercise (Research NZ, 2012).

Difficulties have been experienced encouraging older adults to be active who have been sedentary throughout their lives (OPEN Forum, July 2012). SPARC (2003a) showed that as sedentary people grew older, they were less likely to become physically active. This research showed approximately 25% of sedentary people aged between 65 and 74 years had no intention of changing their physical activity patterns (SPARC, 2003a). Therefore, employees in the sport and health industry must actively seek to work with young people, to create a foundation for later years.

3.2.4 Negative Psychosocial Events

Life events and transitions can cause people to have a poor emotional wellbeing, particularly in their later years. These changes have included; retirement from paid work, the empty nest syndrome felt by many parents when their children leave home, the onset of poor physical health, bereavement, divorce, illness of a close family member and taking on caring roles (Sinclair, 2004; Alpass, 2007; Allen, 2008). Women are more likely to experience bereavement, because they have a higher life expectancy than men (Statistics NZ, 2006b). Therefore, older women should be specifically encouraged to be active.
Ageing has been commonly associated with feeling isolated, excluded and detached from society, which has decreased older adults' self-esteem, authority and independence (Sinclair, 2004; Allen, 2008). In the 2006 Census, 14% of those aged 65 and older cared for a dependant who was ill or had a disability, and 20% cared for children (Auckland Council, 2011). Taking on a caring role can be very consuming, and consequently, the carer has often neglected their own physical and emotional health, and given up personal pursuits, such as physical activity (Age Concern, 2007). Likewise, there are a significant number of isolated older adults throughout New Zealand that need assistance, however, the demand has often surpassed this capacity (Age Concern, 2007). This research will identify methods service providers can reach these isolated older adults, to encourage their participation in society.

3.2.5 Socio-economic Status

Older people spend more time indoors, in relation to younger age groups. Those living in inadequate housing are more inclined to suffer from depression, anxiety and less likely to participate in society (Allen, 2008). Likewise, older adults who have achieved homeownership are more likely to live an active independent life, because they are generally better off financially (Dwyer et al., 2000). Educational attainment has also been an important indicator of emotional wellbeing and older people who are educated are generally more aware of the advantages of living a healthy active lifestyle (Sinclair, 2004).

The MSD’s Positive Ageing Indictors study in 2007 showed the percentage of the population aged 60 and older who were regularly physically active in relation to deprivation. Older adults which resided in the least deprived quintiles had the highest reported rates in physical activity, and older people living in the two most deprived quintiles had the lowest reported rates (MSD, 2007). Research New Zealand (2012) indicated that 4% of people stopped following the GRx programmes physical activities due to financial reasons. This research will suggest methods service providers can utilise to engage the lower socio-economic groups in society.
3.2.6 Perceived Crime and Age Discrimination

The 2010 Social Report identified that 29% of females and 37% of males aged 60 and older reported that a ‘fear of crime’ affected their quality of life (MSD, 2010). This was reinforced by Allen (2008) who explained that this fear has prevented older adults from using public spaces and services, making them feel isolated and excluded from their communities. However, the 2010 Social Report also found that the likelihood of being a victim of crime decreased with age. Adults aged 60 and older had the lowest recorded victimisation rates, where 19% of women and 21% of men in this age group, reported being a victim of crime over the last twelve months. This was the lowest recorded rate for all age groups (MSD, 2010). This research will provide planning practices to increase older adults’ perceptions of safety within their communities.

The media has often illustrated that ‘being old’ is derogatory, where older people have been depicted as senile, delicate and dependent on others (Daley and Spinks, 2000; Allen, 2008). This is reinforced by stereotypes and colloquialism which has distinguished older adults as submissive and restricted people, through expressions like ‘act your age’. Age discrimination has the potential to prevent elderly people from taking part in physical activity if these negative attitudes held against them are believed as the truth (Grant, 2008b). This suggests that local providers may require training to challenge these public’s stereotypes.

3.2.7 Physiological Health

Sedentary lifestyles have been attributed to the high frequency of frailty amongst older people (MSD, 2007). Results from the 2001 New Zealand Disability Survey showed that approximately 43% of those aged between 65 and 74 years had a disability (Boston and Davey, 2006). Figure 6 below indicates how the functional capacity of people declines with age.
Figure 6: The functional capacity of humans declines with increasing age (adapted and sourced: WHO, 2007:6)

Figure 6 above shows that the physiological and functional capacity of humans declines with age, including their muscle endurance and sensory input. As people age, maintaining independence and preventing disability becomes more challenging. Consequently, people are less likely to be able to rehabilitate themselves and improve their quality of life in their later years.

Deafness, poor eyesight, memory loss and reduced mobility become increasingly more common as people grow older (Dwer et al., 2000; MOH, 2006). This functional decline eventually negatively impacts older adults' health, wellbeing and ability to live an independent life (PHAC, 2010). Research New Zealand (2012) found that 43% of patients stopped following the GRx programmes recommended physical activities due to an injury or health problem. The OPEN Forum (July 2012) identified that older adults have wanted to join activity groups, however, many are too frail or immobile. Consequently, these people are often socially isolated and confined in their own homes. Therefore, planning practices to encourage accessibility of buildings and parks will be discussed.
Mummery et al. (2007) explained that the interconnection between lifestyle risk factors must be examined when determining older adults’ exercise patterns. For example, there have been higher self-reported rates of physical activity from people who consume five or more servings of fruit and vegetables a day, are non-smokers and have a Body Mass Index within the healthy range (Mummery et al., 2007). Sinclair (2004) argued that the combination of ‘old age’ and ‘sedentarism’ can have huge harmful implications on older adults’ practical capacity, activity levels, functional freedom and general wellbeing. However, there are a number of opportunities for older adults of all abilities to be physically active in New Zealand which will be discussed in greater detail below.

**3.3 Opportunities**

**3.3.1 Social Connectivity**

In many cases, as people grow older their life circumstances improves. The 2010 Social Report showed that 90% of people aged 65 and older were satisfied with their overall life (MSD, 2010). It also revealed that 76% of elderly respondents believed their contact with non-resident family and friends was ‘about right’. This was the highest reported rate from all age groups (MSD, 2010). In contemporary society, people are more likely to stay in education institutions for longer. In fact, the 2006 Census showed that 17% of those aged 65 and older were part of the labour force (Statistics NZ, 2006a). Consequently, future generations of older adults will have increasingly more disposable income to spend on ‘luxuries’ like participating in physical activity (Statistics NZ, 2006a; Auckland Council, 2011). Therefore, it is suggested that opportunities are provided which enable them to do so.
The contemporary generation of older adults have better access to telecommunications systems compared to previous generations. The 2010 Social Report showed that 99% of people aged 65 and older had phone access. It was also indicated that 50% of those aged between 65 to 74 years, and 26% of those aged 75 and older, had access to the internet. This has reduced isolation and improved their access to services and facilities (MSD, 2010).

Engaging in physical activity has increased opportunities for human contact, promoted social inclusion and discouraged anti-social behaviour (Daley and Spinks, 2000; MSD, 2010; Christchurch CC, 2011). This has increased people’s self-esteem, confidence and life opportunities. The MOH (2008) discussed that regular physical activity has enhanced people’s sense of identity and personal autonomy. This has enriched the meaning of their lives and promoted personal growth and self-expression (MOH, 2008). Involvement in sports teams and clubs has decreased loneliness and isolation among older adults, due to them forming and expanding social networks with other people who share similar interests (Dwer et al., 2000; Sincliar, 2004; Sport Otago, 2012).

The OPEN Forum (July 2012) identified that engaging in sport and recreational groups strengthened community connectedness and skill exchange amongst older people. This has fostered co-operation, social cohesion and trust amongst people (SPARC, 2003b; MSD, 2010). The OPEN Forum (July 2012) also recognised that the ‘group mentality’ is fundamental for getting older adults to fully engage in physical activity. Research by the WHO (2007) explained that providing communal gathering places, and sport and recreational activities, fosters interaction among people of diverse ages and interests living in the neighbourhood. Therefore, sport and health providers should continue providing these opportunities for the rapidly ageing population.
3.3.2 Psychological Wellbeing

The Christchurch CC (2002:17) stated that “life is activity and without activity life is not worth living”. It is also imperative for people to continue engaging in physical activity to help postpone age-related decline (Chodzko-Zajko, 2000; Dwyer et al., 2000; Overdorf, 2005; Grant, 2008b). A strong positive relationship exists between older adults who live an active lifestyle and those who have a positive emotional wellbeing (Dwyer et al., 2000; Sinclair, 2004; MSD 2008a).

Physical activity has encouraged these people to have a new outlook on life, more confidence and a greater sense of purpose in their later years, boosting their life satisfaction, personal control and open-mindedness (Dwyer et al., 2000; Koopman-Boyden and Waldegrave, 2009; Gillon, 2010; Age Concern, 2012b). Participation in physical activity has also led to greater levels of confidence and altruistic behaviour. This reinforces how important regular participation in physical activity is to older adults (Allen, 2008; Christchurch CC, 2011).

Physical activity has improved cognitive functioning by postponing age-related decline in the central nervous system, and increasing processing speed and reaction times (Chodzko-Zajko, 2000; WHO, 2012). Active older adults have better sleep patterns and experience lower levels of fatigue, compared to those who are not physically active (Christchurch CC, 2011; Age Concern, 2012b; Sport Otago, 2012). Involvement in physical activities has helped to relieve stress, apprehension, depression and anxiety, which has consequently improved people’s state of mind (Chodzko-Zajko, 2000; CCC, 2011; Sport Otago, 2012). Literature by Laurin et al. 2001; Sinclair, 2004; Wang et al. 2006 and Age Concern, 2012b showed that older adults who lived active lifestyles had a significant delay in the onset of dementia and Alzheimer’s disease. It can be therefore advised people start exercising from a young age to potentially postpone this onset.
3.3.3 Physiological Rationale

Regular involvement in physical activity also has numerous health benefits. It has helped people lose and control their body weight, because it burns energy and preserves lean muscle mass (Daley and Spinks, 2000; Sport Otago, 2012; WHO, 2012). Regular exercise can improve aerobic and cardiovascular fitness, as well as enhancing strength, balance, body composition and co-ordination (Chodzko-Zajko, 2000; Andrews, 2002; Age Concern, 2012b). Physical activity can postpone the age related deterioration of bones, tendons, joints and ligaments in the skeletal system. Resistance training has significantly improved muscular strength, muscle mass and motor control. This training has decreased bone wasting, common in osteoporosis, and reduced joint swelling and deformities (Chodzko-Zajko, 2000; Daley and Spinks, 2000; Sinclair, 2004; Christchurch CC, 2011; Age Concern, 2012b; Sport Otago, 2012).

Involvement in physical activity can improve; hypertension, hyperlipidaemia, impaired glucose tolerance and the likelihood of having a stroke (Daley and Spinks, 2000; Sport Otago, 2012; WHO, 2012a). Asthmatic older adults who are physically active have better management of their asthma, compared to those who do not exercise (Sport Otago, 2012). Active older people have a decreased risk of experiencing mortality from heart disease and a cardiac arrest (Sport Otago, 2012; WHO, 2012a).

The MOH (2008a) and the Christchurch CC (2011) highlighted that active adults have lower blood pressure and better bodily functions, such as digestion and problems associated with constipation. Older adults who live an active lifestyle are less susceptible to cardiovascular and musculoskeletal diseases (MOH, 2006; Christchurch CC, 2011; WHO 2012a). Regular exercise can decrease the prevalence of chronic health problems, such as type 2 diabetes because physical activity helps lower blood glucose. It has also decreased the prevalence of certain types of cancer, such as colon, post-menopausal breast and endometrial (Dwyer et al., 2000; Sinclair, 2004; MOH, 2008; Age Concern, 2012b; Sport Otago, 2012; WHO, 2012a). Because of these health benefits, age-friendly cities should be planned for by local authorities. This will be discussed in greater detail below.
3.4 Age Friendly Cities

3.4.1 Building Age Friendly Cities

Planning neighbourhoods to encourage physical activity is an international public health issue (Bauman and Bull, 2007). However, promoting health outcomes has not been a major element in the majority of planning decisions (PHAC, 2010). The PHAC (2010) surveyed approximately 800 urban and transport planners about the weight they give to health and wellbeing in their work. Although 89% indicated that there was a strong or moderate interconnection between urban planning and health, nearly 70% stated that health and wellbeing implications had little or no impact on their final planning decisions (PHAC, 2010). Therefore, it is suggested that local authorities are encouraged to prioritise the ageing population in future planning practices. A study by the Dunedin CC (2007) highlighted that many neighbourhood environments were not adequately ‘optimised’ to their greatest potential to encourage physical activity. For example, many parks lacked the provision of toilets or park benches. It is imperative to improve accessibility to amenities and infrastructure to enable older people to participate actively within their communities (MOH, 2003; Grant and Mclean, 2011).

3.4.2 Active Transport

Active transport consists of non-motorised modes of transport involving physical activity, such as walking and cycling. It also includes public transport for longer distance journeys which incorporate walking or cycling to reach the destination (Villanueva et al., 2008; PHAC, 2010; Healthy Spaces and Places, 2009). The PHAC (2010) argued that engaging in active transport is an accessible and effective way to be physically active, which encourages social interaction and cohesion. However, the uptake of active transport by older adults has been dependent on their health and mobility (Davey, 2004). Urban areas which have facilitated cycling and walking, have promoted equality in accessing services. This is because car-dominated environments have often marginalised older members of the community who do not drive or own a car (McCann 2006; PHAC, 2010).
Chapter 3: Literature Review

Therefore, facilitating active transport must be promoted in both local and regional planning decisions. It is recommended that new amenities, services and facilities are situated within walkable or bikeable distances to residential developments (Annear et al., 2011). Frith et al. (2012) argued that future planning of the New Zealand cycling network must take the ageing population into consideration. This is highlighted by the following quote: “Encouragement to cycle should be sensibly moderated by being knowledgeable of older cyclists’ frailty and increased vulnerability to injury in the event of a crash” (Frith et al., 2012: 8).

Annear et al. (2011) explained that there must also be supportive pedestrian conditions for walkers, such as safe walking routes, seating and shelter. The PHAC (2010) argued that; new hospitals, general practices, mobile clinics, rest homes and hospitals must select their location based on proximity to public transport, walking or cycling routes. There is a huge need for accessible urban environments in communities experiencing high levels of socio-economic deprivation. Many older people live in these places, which often have higher levels of lifestyle-related diseases, lower car ownership rates, and poor access to public services and public transport (PHAC, 2010).

Research has shown that elderly people who live in urban areas with good footpaths, safe street crossings and services within walkable distances from their homes, are more likely to walk or cycle because they have greater accessibility and security (Davey, 2004; Bauman and Bull, 2007). Highly interconnected streets decreases the time and distance it takes for pedestrians and cyclists to commute between places, which has encouraged people to use active modes of transport (Frank et al., 2006). It is suggested that well maintained, non-slip footpaths with low gradients are installed in urban areas because they reduce the likelihood of accidents (WHO, 2007; Healthy Spaces and Places, 2009). Roads should also contain traffic calming devices and traffic regulations to be strictly enforced, ensuring that motor vehicles give way to pedestrians and travel at a safe speed. It is also recommended that overpasses and underpasses are built to allow safe crossing at busy intersections, and traffic light phasing allows enough time for senior members to cross safely (WHO, 2007).
3.4.3 Public Transport

Access to private transport has given people self-sufficiency to participate in society in their later years (Dwyer et al., 2000). However, this independence has often diminished once people turn 75 and have had to renew their licence every two to five years with their general practitioners approval (Ministry of Transport, 2012). Research by McCann (2006) showed that older adults residing in rural areas generally lived further away from community amenities than those in urban areas. Consequently, they had less accessibility to transport and support, and were more likely to experience social isolation. Therefore, it is recommended that transport services are offered in rural areas to encourage older adults to engage in the community (McCann, 2006).

Frank et al. (2006) explained that neighbourhoods with effective public transport networks have higher walking and cycling rates. Public transport services must be affordable, well-connected, accessible and reliable for older adults and travel to recreational and sport facilities (WHO, 2007; Annear et al., 2011; Healthy Spaces and Places, 2009). Transition points of public transport must have adequate shelter and lighting to ensure their safety. It is recommended that information provided is senior friendly, including; large print of public transport timetables, transport access information and the range of transportation options available (WHO, 2007).

3.4.4 Inclusive Environments

Urban environments must be safe and accessible for all people, regardless of their age, ability or income. It is recommended that these places provide opportunities for everyone to participate in the political, cultural, civic and economic life (Healthy Spaces and Places, 2009). The PHAC (2010) explained that adults who experience high levels of social cohesion generally have longer life expectancies and higher participation levels in physical activity. Similarly, WHO (2007) identified that respect and social inclusion has been positively related to the extent older adults are involved in recreation, socialisation and cultural activities.
Therefore, there is a need for a variety of amenities, services and initiatives to encourage people to feel connected and part of their community, particularly older members because they are more likely to be socially isolated. It is suggested that plans and designs represent the needs of older people and give them an equal opportunity to participate in planning and decision-making (Healthy Spaces and Places, 2009).

The broader physical and natural environment is innately interconnected to the health and wellbeing of the tangata whenua. The role of iwi, hapū and tangata whenua as kaitiakitanga with the natural environment is identified and exemplified in part 35A of the Resource Management Act 1991. The Local Government Act 2002 also recognises the importance of Māori people and urges local authorities to encourage the contribution of the tangata whenua in decision making processes. Places which have incorporated Māori cultural landscapes have encouraged the tangata whenua to be connected to these places (PHAC, 2010). The Te Pae Mahutonga Māori Health Promotion Model (Figure 7) outlines that there is a strong interconnection between the different components of Māori people and the urban environment (Durie, 1999).
Figure 7: Te Pae Mahutonga Health Promotion Model (Durie, 1999)

Figure 7 highlights that there are a number of interconnected facets of the tangata whenua’s engagement with the urban environment. Mauriora promotes urban cultural landscapes that display cultural symbols. Waiora encourages the protection of the physical environment. Toiora highlights that it is important for neighbourhoods to support active and social living. Te Oranga encourages Māori people to participate in their community engagement processes. The principle of Ngā Manukura and Te Mana Whakahaere encourages the tangata whenua to have their concerns acknowledged and integrated into urban planning. This model has assisted them to determine their urban development priorities, and therefore, it is suggested that local authorities use this holistic model in future planning practices (Durie, 1999; PHAC, 2010).

3.4.5 Safety and Amenity

Well-planned streets and places have improved the physical, mental and social security of communities (Healthy Spaces and Places, 2009). Well-designed and maintained places and amenities, such as; public spaces, walking and cycling tracks, buildings and public transport services can enhance social capital and improve neighbourhood safety perceptions. This is important because people living in these places are more likely to participate in sport and recreational activities in their
communities (WHO, 2007). The safety of public places can be advanced by; improving street lighting, promoting surveillance, enforcing community safety schemes and having buildings which overlook the street (Healthy Spaces and Places, 2009).

Amenity values are defined in part 1 of the Resource Management Act 1991 as: “natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes”. The *Healthy Spaces and Places Design Principles* explained that stylish and well-maintained infrastructure is important for active living. The attractiveness of a neighbourhood has influenced individuals’ perceived quality of life and participation in the community. Therefore, well-designed streetscapes should be integrated into future planning practices, because they decrease traffic congestion and speed, and provide safer places for people to engage in active transport (Edwards and Tsouros, 2006; Frank et al., 2006).

### 3.4.6 Mixed Density and Mixed Land Use

The *Healthy Spaces and Places Design Principles* explained that physical activity levels can be increased by encouraging mixed density and mixed land use developments. Mixed density incorporates residential developments that include; single dwellings, family homes and multi-storey buildings, which has encouraged a variety of housing choices (Healthy Spaces and Places, 2009). Mixed land use developments are urban environments which contain a variety of complementary land uses that are located together. Such as; light industrial activity, retail, community and recreational facilities, and parks and open spaces (Quality Planning, 2012a).

Mixed density and mixed land use developments have generally resulted in condensed residential neighbourhoods, which has encouraged sustainable development (Edwards and Tsouros, 2006; Bauman and Bull, 2007). Research by McCann (2006) argued that compact, walkable, neighbourhoods with different land uses increased active modes of transport to be used to access amenities and infrastructure. These developments also encourage public transport patronage if
residential developments are located within walking distance (Healthy Spaces and Places, 2009). Residential development situated in close proximity to community amenities has encouraged older adults feel socially connected to their local neighbourhoods (WHO, 2007). These developments have encouraged more people to be on the street and in public spaces, which have improved safety and crime perceptions (Healthy Spaces and Places, 2009). It is suggested that mixed density and mixed land use developments are encouraged in future planning practices.

3.4.7 Aging in Place

Older adults who live in their own homes, are more likely to be physically active than those in care (Age Concern, 2007). Age Concern (2007) explained that older adults need; suitable housing, access to services and facilities, personal care and support, and the ability to maintain social connections to age successfully. The MSD has supported ‘ageing in place’ which means creating or adapting homes to be suitable for older adults to prevent them moving into residential care (MSD, 2012a). They have supported District Health Boards by funding home alterations to make dwellings more accessible and liveable for people with disabilities. For example, making sure older adults’ homes have even surfaces and wide passageways for wheelchair accessibility (WHO, 2007). This has ensured that new homes explicitly recognise their future residents, enabling people to live in their own homes for a longer period of their lifespan. This will keep older adults more mobile and in their homes, instead of relying on the health system (MSD, 2012d).

The Thames-Coromandel DC (2011) explained that older adults can be encouraged to continue living in their own homes through providing loans for pensioner housing, and working with iwi to identify appropriate areas for papakāinga housing. A range of housing options must also be offered in land use regulations and housing design should incorporate older adults into the community (Thames-Coromandel DC, 2011).
3.4.8 Parks and Open Spaces

Literature by Bauman and Bull (2007) showed that neighbourhoods with close and accessible parks, playgrounds and recreation spaces were positively associated with having higher levels of physical activity than those which did not. The WHO (2007) argued that green space is a significant feature of age-friendly cities, which encourages active ageing. Accessible and attractive parks and sports fields have promoted social cohesion, because they encourage social interaction within communities. Promoting the local character of places has increased a sense of identity amongst residents and assisted in creating a more interactive neighbourhood (PHAC, 2010; Annear et al., 2011).

It is recommended that parks and open spaces have well-maintained seating, shade, public toilets and play equipment which is accessible for all members of the community, including older adults. Another suggestion is that walking and cycling paths include appropriate lighting, water fountains and clear signage. Adequate open spaces must be situated throughout urban areas and be accessible for cyclists, walkers and public transport users, to fulfil their sporting and recreational needs (WHO, 2007; Annear et al., 2011; Healthy Spaces and Places, 2009).

3.5 Conclusion

This chapter has outlined current academic debates in relation to the ageing population. In the past, empirical and top-down approaches were most dominant in ageing research, where the researcher was the ‘professional’ and the participant was the ‘subject’ (Harper and Laws, 1995; Mansvelt, 1997). This has led to more critical and humanistic views. Correspondingly, notions including positive ageing, active ageing and the Third Age have been discussed in this chapter. However, it was argued that these concepts only explain parts of older adults’ behaviour. When more knowledge is discovered, these theories will be revised and updated. This highlights that it is important to comprehend, why things do, and do not happen and the lessons learnt from this (Grant, 2008a).
This chapter then examined what the key barriers to, and opportunities for, engagement in physical activities which were evident in the literature. An extensive review of the literature highlighted that the key barriers included: impacts of early life, entering the 21st century, motivation and perceived capabilities, negative psychosocial events, socio-economic status, perceived crime, age discrimination and poor physiological health. The literature review also identified that the important motivators consisted of enhancing; social connectivity, psychological wellbeing and physiological reasons. Moreover, it was identified that many older adults understand that there are multiple advantages to being physically active (Grant et al., 2007; Grant and Mclean, 2011). However, there was a disparity between ‘knowing’ and ‘doing’ physical activity (Grant et al., 2007). This suggests that there needs to be further support from planning professionals and sport and health providers to make physical activity more accessible to older adults.

Finally, this chapter highlighted the key features which are important to promote and facilitate for designing healthier and age-friendly urban areas. These characteristics included; public and active transport, inclusive environments, safety and amenity, mixed density and mixed land use, ageing in place, and parks and open spaces. Urban environments must be safe and accessible for all people, regardless of their age, ability or income (Healthy Spaces and Places, 2009). Urban areas which have facilitated and supported these factors have promoted equality in accessing services, and therefore, must be encouraged in local, regional and central planning decisions in the future (McCann 2006; PHAC, 2010). The following chapter outlines the research strategy adopted in order to achieve the research questions that were outlined in Chapter 1.
A sound research strategy considers implementation issues, and ensures that data gathering is carried out smoothly to answer the research questions (Davidson and Tolich, 2003). This chapter outlines and justifies the selected humanistic research approach, the methods that were employed, and the data analysis techniques that were used to answer the research questions. The research design is based on a theoretical framework, formulated through a review of the contemporary literature and an institutional framework analysis. Dunedin was selected as the main case study city in the research to investigate the extent older adults have been provided opportunities to be physically active in New Zealand.

The methods used in this project include a combination of surveys, attending an older adults forum in Dunedin and semi-structured interviews with; Older Adults residing in Dunedin (capitalised to denote that this is the group of older adults interviewed), local authority representatives and employees working in the sport and health industry. Finally, data analysis was undertaken, which included transcribing key informant interviews and coding into specific themes, along with a comparison of primary and secondary research.
4.1 Research Approach

A humanistic approach was the theoretical method used in the research to determine whether there was sufficient planning devoted to enabling older adults to participate in physical activity. This was deemed the most appropriate research approach as it investigated the Older Adults’ personal experiences engaging in physical activity in Dunedin. This was also important to gauge the knowledge and views of local authority representatives and employees working in the sport and health industry (Harper and Laws, 1995; Mansvelt, 1997). The qualitative nature of this research, enabled the researcher to concentrate on significant situations, and allowed for participants to express their specific perceptions.

Yin (2008) defined a case study as an experimental investigation that examines a contemporary phenomenon within its real-life setting. Case studies provide a holistic summary of the research area by allowing problems to be examined from multiple perspectives (Kitcchin and Tate, 1999). A case study approach was undertaken in this research through interviewing Older Adults living in Dunedin and employees working within local councils throughout New Zealand.

The importance of older adults to remain physically active in their later years is an increasingly common concept. Consequently, there is a demand for more research about older adults’ experiences participating in physical activity in New Zealand (Grant, 2008b). Dunedin has been selected as the main case study city in this research, to investigate how planning, legislation, policies and resources have been designated at a national level, to provide opportunities for older adults to participate in physical activity at the local level.

As Dunedin City has a proportion of permanent residents aged 65 and older above the national average, it was decided that a Dunedin based case study would be an appropriate choice of locality for this study. The research also involved interviewing planning professionals within local councils, who worked both directly and indirectly, advising and liaising with older adults, to improve their health and wellbeing through physical activity. This determined the extent to which the New Zealand planning system provided opportunities for older adults to participate in physical activity at the local level.
4.2 Triangulation

Triangulation involves the use of different research tools in the same research design to confirm findings and key themes (Kitchin and Tate, 1999). This multi-method approach has encouraged researchers to use the strengths of each method to improve the quality of the research undertaken (Kitchin and Tate, 1999). Using the specific research questions, a variety of methods were employed to ensure reliable and complex data was gathered. Selected methods employed included; a literature review, document analysis, key informant interviews, a demographic survey and attending an older adults forum in Dunedin.

4.3 Ethical Consideration

Social research is a complex process that involves dynamic interaction between the researcher and the respondent (Kitchin and Tate, 1999). Before field research commenced, approval for Ethics A was sought through the Otago University Human Ethics Committee. Preparing and implementing appropriate and effective practices that empower the tangata whenua was crucial throughout the research (Davidson and Tolich, 2003). Therefore, Māori consultation was carried out with the Ngai Tahu Research Consultation Committee, before the research was undertaken.

The research details and requirements were fully explained before every interview commenced. All participants were sought through a recruitment poster (Appendix A) and given an information sheet (Appendix B) explaining the aim of the research project. Respondents signed a consent form (Appendix C) to show they understood their participation rights, what the data would be used for, and their agreement for the interview to be audio taped with a dictaphone for later transcription.
The participants could choose to be anonymous in order for them to contribute openly and honestly to the research process, and to ensure that there would be no negative repercussions for their responses. Their anonymity was guaranteed by being given an individual identification number. Participants were informed they could withdraw from the project at any stage without experiencing any negative consequences. The data collected was securely stored in a way that only the researcher could access it. The principles and ethical guidelines of Otago University were fulfilled. Davidson and Tolich (2003) argued that the code of ethics is based on five basic ethical principles, which were the foundation to the research design and undertaking the research. They are; do no harm, voluntary involvement, maintain the anonymity of participants, avoid deception and examine and report honestly (Davidson and Tolich, 2003).

### 4.4 Data Collection

The research involved two stages of data collection. Initially, secondary data was collected which involved a complex examination and analysis of the relevant literature on the research topic. Sources of available literature included; journal articles, council and government documents, academic readings and online resources. Following this, primary research methods were employed, including; key informant interviews, a demographic survey of the Older Adults and attending an older adults forum in Dunedin. The fieldwork was undertaken in Dunedin from the 11th June to 5th of July 2012.
4.5 Secondary Research

4.5.1 Literature Review

A literature review was carried out to establish a theoretical framework for the research topic and place the investigation into context. Gaps in the literature highlighted areas where further study was required and connected the research to academic knowledge (Webster and Watson, 2002). Examining literature and theory is fundamental for academic research, because it creates a strong foundation for expanding knowledge and encourages the development of theories (Webster and Watson, 2002; Davidson and Tolich, 2003). The literature review facilitated an appreciation of the key themes which influence older adults’ participation in physical activity in New Zealand.

4.5.2 Institutional Framework

In addition to the literature review, a detailed analysis of specific planning documents was carried out, to understand the legislative and policy context of older adults’ participation in physical activity. These documents included; recommendations, legislation, strategies and plans. They were examined to identify key themes and best practices in New Zealand and internationally, of how to encourage older adults to become more physically active. This was followed by the undertaking of primary research, this will be discussed below.
Chapter 4: Methodology

4.6 Primary Research

4.6.1 Key Informant Interviews

To achieve the aim of the project, the researcher carried out 39 semi-structured interviews across three respondent groups. These included; 12 Older Adults in Dunedin, 14 planning professionals working within local councils and 13 employees in the sport and health industry. The qualitative nature of these interviews enabled the researcher to have a comprehensive understanding of key issues and flexibility within the research process (Davidson and Tolich, 2003). This allowed the researcher to gain a holistic understanding of the research topic, and obtain a balanced view on specific issues. This produced reliable and diverse research in an informal setting to understand key informants’ experiences, feelings and opinions (Kitcchin and Tate, 1999). The three questioning frameworks were used for; the Older Adults, planning professionals and sport and health industry employees. These are highlighted in Appendix D, along with additional questions for Māori health providers. The selection process and interview procedure for each respondent group are discussed below.

Older Adults

The older adult key informants all met the criteria outlined in the introduction; Dunedin residents aged 65 and older who were retired, and had resided in Dunedin for over twelve months. Of the 12 Older Adults interviewed, 83% were female and 17% were male. A total of 82% of participants had lived in Dunedin for over thirty years. The ethnic composition was 92% New Zealand European and 8% Māori. The full descriptive details of the older adult sample population are provided in Appendix F. The Older Adults were mainly recruited through their involvement at a local Dunedin social club. They expressed their interest to participate in this study by writing their name and phone number in a recruitment table (Appendix G).
The researcher was then able to arrange a suitable time for an interview. These Older Adults were posted a participant information sheet, a consent form and a two page demographic survey, to be completed before their interview. The survey collected demographic information about the Older Adults; age, gender, ethnicity, educational attainment, income before tax, health and marital status. This information described the sample population of the Older Adults interviewed. An example of the demographic survey used is outlined in Appendix H.

The Older Adults were informed the purpose of the interview was to gather an insight into the key barriers to, and opportunities for, engaging in physical activity. Interviews involved a 30 minute semi-structured discussion in person with the researcher at the Older Adults’ residential address. The framework used allowed questions to be adjusted depending on how the interviews progressed. The questions covered information about the Older Adults’ lifestyles, day-to-day activities, and recent changes in their perception of quality of life. Neutral probes and prompts were used when required during interviews (Bowling, 2004).

The interviewer was sensitive to participant fatigue and took breaks accordingly. The collective insights from the Older Adults gave an empirical base for future research and policy to help people age actively, and overcome barriers to help them live physically active lifestyles. A database of qualitative comments from the interviews and anecdotal recounts summarised the situation of each respondent. Their participation was acknowledged with a card as a token of the researcher’s appreciation.

Local Authorities and Employees in Sport and Health Industry

Respondents working for local councils and employees in the sport and health industry were recruited based on their knowledge and professional opinions relative to planning for older adults’ participation in physical activity. Details of local councils and employees in the sport and health industry that were contacted and interviewed is contained in Appendix E. Interviewing a range of key informants enabled the researcher to have a holistic understanding of the research topic and balanced views on different issues.
The research included discussion with 14 council representatives from 11 different councils throughout New Zealand. Due to time constraints, some discussions were undertaken via emailed questions rather than interviews. Council representatives comprised of; 1 Regional Council (Wellington), 5 City Councils (Auckland, Christchurch, Dunedin, Upper Hutt and Palmerston North) and 5 District Councils (Hastings, New Plymouth, Rotorua, Thames-Coromandel and Waitaki).

The research also involved interviews with 13 employees working within the sport and health industry, including representatives from the; Ministry of Health, Ministry of Social Development, Sport New Zealand, the New Zealand Recreation Association, Waikato University, Sport Otago, Coleman Consultancy, Grey Power, Kai Tahu Ki Otago Ltd, Tumai Ora, Te Hou Ora and the Royal New Zealand Foundation for the Blind.

An introductory email was sent to employees working within local councils and the sport and health industry, requesting their participation in the research project. This email included a brief description of the project, the participant information sheet and a recruitment poster. It was anticipated that local councils and employees in the sport and health industry would recommend potential key informants from their own membership. The researcher also posted a message on the Local Government Listserv and had an article featured in the New Zealand Recreational Associations June newsletter recruiting knowledgeable key informants. Suggested participants were directly contacted to arrange a suitable time and venue for an interview. Interviews outside of Dunedin were carried out on the telephone. All respondents were informed their participation would involve a thirty minute semi-structured interview with the researcher.
Question frameworks were prepared in advance for local council representatives and employees working within the sport and health industry, allowing for questions to be adjusted depending on how the interviews progressed. All interviews started with introductory questions to establish the interest of each respondent, enabling the researcher to ask further probing questions if a topic of specific relevance arose. The purpose of these interviews was to hear the professional views and specialist expertise of how these informants had prioritised, and developed, age-friendly strategies to encourage older adults to become active. The interviewer asked questions to better understand how to improve planning initiatives in future policies, to enable older adults to optimise their opportunities to participate in physical activity. After the initial interviews a ‘snow-balling’ recruitment technique was undertaken to recruit other participants.

4.6.2 Otago Partners for Elders Needs Forum

The Otago Partners for Elders Needs Forum (OPEN Forum, July 2012) is a network of a range of organisations and agencies involved in improving the wellbeing of older people in the Otago region, which has met monthly since November 2011. In July 2012 the researcher attended the OPEN Forum. This was a health promotion workshop which discussed issues surrounding; nutrition, physical activity, injury prevention and health inequalities the tangata whenua are experiencing in New Zealand. Representatives from Sport Otago, Public Health South, Pacific Trust Otago, Arai Te Uru, Otago University, Age Concern, the Department of Preventative Medicine, Senior Services, Arthritis New Zealand, the Cancer Society, the Return Servicemen Association and the Dunedin Public Hospital attended the OPEN Forum. The purpose of the forum was to establish what the key health issues were for older adults, priorities for action, and service providers who could facilitate better opportunities to improve the health and wellbeing of older adults.
4.6.3 Data Analysis

Throughout the research process it is crucial to carry out data analysis, as it allowed trends and patterns to be identified and analysed (Davidson and Tolich, 2003). Undertaking effective data analysis significantly enhances the understanding of the data gathered, and the meaning contained within the information (Ruane, 2005). The first phase of the data analysis included transcribing the interviews. Coding was then undertaken, which involved identifying key themes, giving labels to these notions and clustering them into sub-themes (Stenner et al., 2010). This largely decreased the data collected from both primary and secondary resources. The final stage involved drawing conclusions and providing recommendations from the research (Davidson and Tolich, 2003). This data is presented in Chapters 6, 7, 8 and 9.

4.7 Reflections on Methods

The broad scope of this research may be considered as a limitation as it was not possible to go into significant detail in every aspect that was elicited in the research. Considerable effort was made to enhance the consistency and precision of the methodological approach used in this report. However, as with any study, there are limitations and constraints to the data collected. Time constraints, meant the number of people and organisations interviewed was restricted, and some interviews had to be done by an emailed series of questions rather than a full interview. There were also initial difficulties recruiting a wide range of older adult participants and some sport and health providers, as they were not always forthcoming. The nature of the semi-structured interviews meant that there was a reduced capacity to make methodical comparisons between key informant groups and their answers. Similar questions however, were asked for each informant group, to enhance the validity of the comparisons. The researcher gained a broad understanding of the overall key issues and successful elements of older adults’ participation in physical activity.
Limitations were experienced in the recruitment of older adult participants. Respondents were not a ‘random sample’ due to having prior knowledge of the researcher and the project being undertaken. The Older Adults were mainly recruited from a local Dunedin social club, and therefore, generally more active within the community. This may have resulted in ‘silenced’ groups who had limited connections, such as, older adults with disability or with limited access to transport. The demographic profile of key informants was also a limitation because the majority of participants were of New Zealand origin and female (see Appendix F).

The Older Adults may have answered questions inaccurately to give an answer they believed the researcher wanted to hear or to uphold an appearance they were trying to depict (Blee and Taylor, 2002). For example, due to the media attention given to the importance of living a physically active lifestyle, it is likely that some may have exaggerated their participation level. Similarly, the demographic survey was heavily reliant on the older adult’s ability to fully understand the questions being asked.

In the research, some of the Older Adults had a hearing impairment, which may have influenced how they understood and answered the interview questions. When necessary, the researcher slowly and patiently explained questions to enable the Older Adults to completely understand what was being asked. It can also be suggested that the Older Adults may have also felt less confident than other groups interviewed, who were in a professional capacity. The Older Adults were given the opportunity to have a support person to accompany them in the interview if they felt at all apprehensive. Despite these constraints, the data collected gave a broad understanding of the overall problem field, and the important issues when planning ways for older adults to be physically active.

The researcher was aware that her positionality and worldviews may have unintentionally influenced the structure or outcome of the research. However, the research approach used triangulation, and was designed using reflective procedures to minimise these risks. The researcher strived to uphold a neutral position throughout this process.
4.8 Conclusion

The adoption of a humanistic, qualitative approach was utilised to determine whether there was sufficient planning devoted to enabling older adults to be physically active. This method allowed the research to understand specific situations, and enabled participants to express their personal views and experiences, which promoted an inclusive planning approach. A review of recent literature and the institutional framework about the ageing population and physical activity was conducted, which helped broaden the research field and develop a more extensive theoretical basis to the project. Dunedin City was selected as the main case study in the research, to investigate how; planning, legislation, policies and resources, have been designated to provide opportunities for older adults to participate in physical activity.

Following this, the student researcher attended an older adults forum in Dunedin and conducted interviews with; the Older Adults residing in Dunedin, local authority representatives and employees working in the sport and health industry. The semi-structured nature of the interviews allowed them to be adapted based on each individual’s unique experiences and expertise. The data analysis principally included transcribing the interviews, coding into specific themes, and comparing primary and secondary research. Having outlined the methodology, the following chapter examines the important documents which have encouraged older adults to be physically active at the international, national and local level, using Dunedin City as a case study.
Throughout the world countries have prepared proactive strategies to encourage people to have a healthy active lifestyle in their later life (Chodzko-Zajko et al., 2009; Ecclestone and Jones, 2004; Thurston and Green, 2004; Grodesky et al., 2006; Henley and Jackson, 200; Grant, 2008b). This is reinforced by McCann (2006:267): “Congress, state legislatures, and city councils are all considering measures designed to help create environments that reduce the risk of obesity”. There is no specific framework or strategy within New Zealand which exclusively provides guidance for older adults to be physically active (Mummery et al., 2007; Grant 2008b). However, this message is implicit in multiple forms of legislation, strategies and guidelines, without being mentioned specifically. These have guided the strategic planning and service delivery of physical activity resources and services to older adults in New Zealand (Grant, 2008b).
5.1 Chapter Overview

This chapter will discuss these documents at the international, national and local level, using the case study of Dunedin City.

The World Health Organisation Global Recommendations on Physical Activity for Health will be examined first.

Second, national legislative and policy documents relevant to this study will be discussed. They include:

- The Treaty of Waitangi 1840.

Third, the Ministry of Health has two publications encouraging older adults to be physically active:


Finally, policy documents relevant to the Dunedin case study will be investigated, including:

5.2 International

5.2.1 Global Recommendations on Physical Activity for Health

The WHO encourages governments throughout the world to promote physical activity to improve residents’ quality of life, and is also responsible for the policy requirements to encourage active ageing (Chodzko-Zajko, 2009; Gillon, 2010). At the international level, there is one key set of guidelines which encourage older adults to be physically active. The WHO published the Global Recommendations on Physical Activity for Health in 2011. These recommendations are important because they provide international guidelines concerning the amount of exercise recommended for adults aged 65 and older in order to live healthy lifestyles (WHO, 2012a).

The recommendations advise that older adults participate in at least 150 minutes of moderate-intensity aerobic physical activity throughout any given week. It is advised that this aerobic activity is undertaken in sessions longer than 10 minutes duration. The guidelines suggest that if physically active older adults increase their moderate-intensity aerobic physical activity to 5 hours every week or undertake at least 150 minutes of vigorous-intensity aerobic physical activity every week, health benefits will be further increased. It was further recommended older adults with limited mobility, participate in physical activity more than three days a week to improve their balance and stability (WHO, 2012a).

It was recommended that muscle-strengthening activities are carried out more than two days a week (WHO, 2012a). Variations between people should be taken into consideration in relation to their exercise capacity and health status (WHO, 2010b). When they are unable to fulfil these recommendations due to poor health, they should persevere to be as active as their health conditions allow (WHO, 2012a). It is suggested that those who are not fulfilling these recommendations attempt to increase the duration, frequency and intensity to fulfil these targets (WHO, 2010b). The MOH is currently preparing physical activity guidelines for people aged 65 and older to be based on these guidelines. These guidelines will provide the basic benchmark for strategies that encourage older adults to be physically active in New Zealand.
5.3 National

5.3.1 Treaty of Waitangi

The Treaty of Waitangi (the Treaty) is the founding legislation in New Zealand, which has formed a strong relationship between the tangata whenua and the Crown since 1840 (MOH, 2002b; MOH, 2003). It has created a governance framework for New Zealanders (kāwanatanga), provided the rights of the tangata whenua (rangatiratanga) and established equality for all New Zealanders (rite tahi) (Human Rights Commission, 2012). Older Māori adults have been over-represented in a range of negative health disparities in comparison to other New Zealanders (MOH, 2011). These inequalities must be identified, mitigated and eliminated to enable to Crown to fulfil its promises as a Treaty partner (MOH, 2002b). Therefore, the Treaty must be used as a guide to prepare activities and services to fulfil the diverse needs of Māori people (MOH, 2003).

The MOH (2002d:2) highlighted that the Treaty’s relationship with the Crown must be founded on the three principles of “partnership, participation and protection”. Partnership involves working cooperatively with iwi, hapū, whānau and Māori communities to develop schemes to improve the health and wellbeing of the tangata whenua. Participation in planning decisions has encouraged Māori at all levels of the planning sector, to prepare and distribute health and disability services. Finally, protection has ensured that they have the same health standards as other New Zealanders, and their cultural ideologies, values and principles are protected (MOH, 2002b; MOH 2003).

If Māori people are empowered through greater partnership, participation and protection, it can be suggested that they will be more active in their communities in their later years. Edwards (2010) argued that the New Zealand Positive Ageing Strategy has largely reflected Western scientific views of the world, which has consequently disregarded Māori worldviews, which means that the Treaty has not been fulfilled. Therefore, older Māori adults are less likely to be regularly physically active than other non-Māori New Zealanders (Edwards, 2010).
5.3.2 Positive Ageing Strategy

The New Zealand Positive Ageing Strategy 2001 explains the Government’s commitment to positive ageing, and the importance of older adults in New Zealand’s society (Office for Senior Citizens, 2005; Edwards, 2010). The development of this strategy signalled the need for central government policy makers to start focusing on meeting the needs of New Zealand’s ageing population. It also identified ways in which older people can be supported to participate in their communities and have positive experiences in their later years (Hotop, 2009). This strategy incorporates a framework to assist policies and services for older adults throughout the central and local governments (MSD, 2012f).

The vision of the strategy is for New Zealand to become a “society where people can age positively, where older people are highly valued and where they are recognised as an integral part of families and communities” (Dalziel, 2001). This strategy has encouraged local authorities to introduce action plans which promote positive ageing (Davey, 2006).

The Positive Ageing Strategy outlines ten goals and supporting actions in areas covering; income and financial security, health needs of older people, housing, transport, ageing in place with safety and security, cultural diversity, rural areas and remote rural issues, attitudes, employment and opportunities. These goals have assisted policies and programmes across local and central governments to improve opportunities for older adults to participate within their communities (Dalziel, 2001; Office for Senior Citizens, 2005). When this strategy was published, the Ministry of Social Policy stated that older adults needed to age positively, to enhance and safeguard their health and wellbeing. This included supporting them to participate in all aspects of community life, which incorporates physical activity (Dalziel, 2001). However, the strategy has provided no direct guidance or support for older adults to be physically active. Goal 10 was most explicit to encouraging physical activity amongst older adults, to increase their: “opportunities for personal growth and community participation”.

The key actions to fulfil Goal 10 include (Dalziel, 2001):

10.1 Improve opportunities for education for all.
10.2 Encourage and promote adult education and retraining initiatives.
10.3 Encourage the experience and utilise the skills of older people.
10.4 Promote and support volunteers and their organisations.
10.5 Enable and support older people to access information and communication technology.
10.6 Promote opportunities to enhance exchanges of cultural knowledge and language skills.

This strategy aims to guide decision-making in relation to Government policy development and service provisions that impact older people. It also identifies the importance of partnerships with local government, communities and support agencies. Local councils are not responsible for delivering the same services as central government. However, it is suggested that local authorities recognise their role to advocate positive ageing amongst the various local agencies. Therefore, the Positive Ageing Strategy has given significant leverage to local councils to make positive changes within their communities which benefit people in their later life (Dalziel, 2001).

It is important for local authorities to adopt and integrate their own Positive Ageing Strategy into their planning practices. Different local councils have utilised this strategy in different ways. Some have used it to specialise in different areas in their own locality, by preparing their own positive ageing strategy. This has often been a local take on the national strategy. While other councils have worked through the national strategy guidelines, focus areas and actions, to guide the work they do for older adults. In return, they have submitted actions into the national Positive Ageing Strategy. The Dunedin City Social Wellbeing Strategy will be discussed in greater detail in the later part of this chapter which has encouraged older adults to be physically active.
5.3.3 Local Government Act

The Local Government Act 2002 has provided a broad framework and mandate for regional, city and district councils to function within New Zealand. This Act has strived to enhance the livelihoods of New Zealand communities (McKinlay, 2005; Community Outcomes, 2012). For example, under section 10b, local councils have been required to promote the “social, economic, environmental and cultural wellbeing” of their communities (New Zealand Legislation, 2002). Local councils which have not developed their own Positive Ageing Strategy are required to explain how the needs of their elderly population have been fulfilled in their Long Term Plan (MSD, 2012b). Each local council is required to prepare a Long Term Plan, which includes their activities, expenses and forward planning over a ten-year period. In the past, local authorities have been the key providers of; recreational space, transport, infrastructure and planning (Rowe, 2008; Gillon, 2010). Therefore, they will be largely responsible to plan for the rapidly ageing population in the future (Boston and Davey, 2006). The Dunedin Long Term Plan 2004-2014 will be discussed in greater detail in the later part of this chapter.

5.3.4 Resource Management Act

The Resource Management Act 1991 (the RMA) is New Zealand’s primary, overarching legislative framework for resource management planning (Ministry for the Environment, 2012). The purpose of the RMA is exemplified in part 2, section 5 (1) which is: “to promote the sustainable management of natural and physical resources”. The RMA is important for this research where sustainable management is defined in part 2, section 5(2) as:

“The use, development, and protection of natural and physical resources in a way, or at a rate, which enable people and communities to provide for their social, economic and cultural wellbeing and for their health and safety...”
Town planners are expected to reflect the RMA in all stages of any development, to ensure that the issues of; social, economic, cultural, health and safety of people have been considered (Ministry for the Environment, 2012). Planners have been given the mandate to examine the environmental consequences of planning decisions, through the provisions in the RMA. However, there has been limited legislative mandate, and low priority given for health decisions. Therefore, it is suggested that there is greater leadership provided at the local, regional and central levels, to the mandate and priority given to decisions influencing people’s health and wellbeing (PHAC, 2010).

This research endeavours to examine the extent planning, legislation, policies and amenities have been designated to provide opportunities for New Zealand’s ageing population, to live active lifestyles. This includes facilitating public input, by providing older adults with a voice so they can be represented at the council level, leading to more inclusive decision making (WHO, 2008). This will consequently enhance older adults’ social, economic, cultural and physical wellbeing, and therefore, promote sustainable management which is the overarching purpose of the RMA.

5.3.5 Healthy Eating, Healthy Action

The Healthy Eating, Healthy Action (HEHA) strategic framework was published by the MOH in 2004. The aim of the framework was to foster an environment where whānau were assisted to live healthy, active lifestyles by promoting; physical activity, improving nutrition and decreasing obesity. HEHA had a fund specifically for the tangata whenua, which assisted Māori communities and health providers to prepare strategies and implement projects which encouraged ‘healthy eating or healthy action’ (MOH, 2003).

Local providers were employed by each District Health Board to assist the tangata whenua to implement these projects in their respective areas. This fund for the tangata whenua was successful because it catered for Māori people’s cultural needs, encouraged participation, and generally funded projects which targeted people with high needs, from low socio-economic groups (Southern DHB, 2010; Southern DHB, 2012a). The HEHA Strategy ended in June 2012 and the money was redirected back into the MOH (MOH, 2003).
Chapter 5: Institutional Framework

5.4 Ministry of Health

5.4.1 Health of Older People Strategy

The Health of Older People Strategy was published by the MOH in 2002. A key objective of this strategy is to enhance and protect the health and wellbeing of older people, including enhancing their physical wellbeing (MOH, 2002a; Grant 2008b). The primary aim of this strategy is: “to develop an integrated approach to health and disability support services that is responsive to older people’s varied and changing needs” (MOH, 2002a:3).

The strategy consists of eight objectives, outlining areas where change is fundamental for the strategy vision to be fulfilled. The most specific objective to this research is Objective 2 which stated: “Older people, their families and whānau are able to make well-informed choices about options for healthy living, health care and/or disability support needs” (MOH, 2002a:1).

Actions to fulfil Objective 2 includes (MOH, 2002a:16-19):

- The Ministry of Health and District Health Boards will make appropriate information about health and support programmes and services easily available and accessible to older people, carers and service providers.
- Service providers and health professionals will older people, and their family, whānau and carers where appropriate, in decisions about their care and support.
- The Ministry and District Health Boards will review and strengthen provisions for protecting vulnerable older people from abuse.
- The Ministry, District Health Boards and service providers will foster and model positive attitudes to ageing and older people.
Health and support programmes must operate in ways which encourage older adults “to take responsibility for preserving their health through a healthy lifestyle” (MOH, 2002a:15). This enables them to provide skills and wisdom to their own family and community (MOH, 2002a). It is recommended that local councils ensure that the needs of their local populations are being met through working collectively with their respective District Health Boards (OPEN Forum, July 2012). The Health of Older People strategic plan, aided the enforcement of the Health of Older People Strategy. This strategic plan provided a clear direction for structures and systems to be put in place. This enabled effective planning practices to enhance health and disability support schemes for older adults (MOH, 2006). At a local level, the Dunedin CC’s Social Wellbeing Strategy identified that the ageing population is the most significant social issue facing the city. This will be discussed in greater detail below (Dunedin CC, 2012c).

5.4.2 He Korowai Oranga: Māori Health Strategy

The overall aim of the Māori Health Strategy is for: “Māori families supported to achieve their maximum health and wellbeing” (MOH 2002d:1).

Outcomes sought for whānau (MOH 2002d:1):

- *Whānau experience physical, spiritual, mental and emotional health and have control over their own destinies.*
- *Whānau members live longer and enjoy a better quality of life.*
- *Whānau members participate in te ao Māori and wider society.*

There are two dimensions of the kaupapa behind the Māori Health Strategy. First, the strategy has largely supported Māori holistic health models, and promoted Māori led initiatives to enhance the health of the whānau, hapū and iwi. Second, the strategy has ensured that Māori health projects are planned, funded and delivered effectively. It has fostered Māori community development and encouraged their participation in decision making. It has identified Māori health inequalities and has encouraged the workforce to respond appropriately to these disparities.
It has argued that it is crucial to work with people in their social contexts, not solely with their physical symptoms (MOH 2002d). The strategy requires the Crown and Treaty partners to work together, and directs the health and disability sector to undertake leadership responsibilities throughout local governments. This addresses the variety of health disparities and prepares services addressing the needs of whānau. Therefore, local governments should use this strategy when encouraging older Māori adults to be physically active. The strategy also encourages a multi-disciplinary approach to encourage different health providers to work together and prevent duplication and gaps in services provided (MOH, 2002b). At a local level, the Dunedin City Council’s Social Wellbeing Strategy highlighted that the Council will fulfil its obligations under The Treaty, including the need to consult and engage with the tangata whenua (Dunedin CC, 2012c).
5.5 Local

5.5.1 Getting Dunedin Active Strategy

The current physical activity strategy for Dunedin is the Getting Dunedin Active (GDA) strategy 2007-2010. The GDA strategy is collaborative, where the Dunedin CC is only one partner in the strategy. It is in partnership with a representative cross-section of ‘project partners’ which meets quarterly. These organisations have worked together to identify key goals and projects to increase physical activity levels in Dunedin. Its vision is for: “All Dunedin residents living active, healthy and enjoyable lifestyles” (MoveMe, 2012). The strategy has aimed to increase Dunedin residents’ knowledge of and involvement in physical activity. The five goals of GDA are highlighted which are each supported by key actions (Dunedin CC, 2007).

The five goals of this strategy include (Dunedin CC, 2007):

- *Create urban and rural environments that foster more active lifestyles for all Dunedin residents.*
- *Ensure that all Dunedin residents understand the enjoyment and benefits of being physically active and how they can access these opportunities.*
- *Ensure efficient collaboration between the organisations involved in promoting, delivering and researching physical activity.*
- *Improve the capability of organisations that facilitate and deliver physical activity opportunities.*
- *Develop more active lifestyles for our future generations.*
In 2011, the revised GDA action plan was released. It incorporated new initiatives to fulfil the changing needs of the community. During this process, it was identified that the ageing population was not sufficiently represented. Subsequently, new agencies and organisations were also invited to join as project partners, such as Age Concern, Māori health providers and Disability Information Services. This increased project partners’ awareness of issues which impacted older people, and increased the accessibility of services which promoted the interests of the elderly. The project group has used the knowledge and networks of Age Concern to understand how to encourage older people to be more active (Dunedin CC, 2012b).

The GDA strategy has representatives from; Māori Women’s Welfare, Arai Te Uru Whare Hauora, Te Hou Ota Otepoti and the University of Otago. In 2012, these people established a Māori physical activity forum to increase activity levels among Māori in Dunedin. This forum has proposed to host a physical activity and nutrition hui to encourage the Māori community to collaborate, network and examine what to do in the future (Dunedin CC, 2012b).
5.5.2 Dunedin Long Term Plan

The Dunedin Long Term Plan 2004-2014 was founded on seven broad community outcomes, which apply to different factions of the population. This has provided a strategic framework for the contemporary projects being undertaken by the Dunedin CC and the future direction of the city. This plan reflected what Dunedin residents believed were the key priorities to fulfil their contemporary and future social, economic, environmental and cultural needs (Dunedin CC, 2009). Section 91 of the Local Government Act 2002, explained that it is mandatory for local authorities to ‘facilitate’ these outcomes by finding solutions to fulfil their local residents’ needs (McKinlay, 2005). Community Outcomes 6 and 7 in the Dunedin Long Term Plan were most applicable for encouraging older adults to live physically active lifestyles.

Community Outcomes most relevant to the study (Dunedin CC, 2009):

5) Supportive Community: A city where residents feel included and connected with their wider community.

6) Active City: A city that provides and encourages participation in a broad range of sporting, recreation and leisure activities.

5.5.3 Social Wellbeing Strategy

In 2012, the draft strategy of the Dunedin CC’s Social Wellbeing Strategy will provide a social wellbeing framework for the next twenty years for its residents. This will be the overarching strategy for the numerous wellbeing strategies in Dunedin, including the Older Persons Policy 1997. It has complemented the existing spatial plan, and economic and transportation strategies. This strategy was developed through consolation processes and plan submissions, which identified five social wellbeing challenges currently facing Dunedin City (Dunedin CC, 2012d).
Social challenges currently facing Dunedin most relevant to this research (Dunedin CC, 2012d:1):

1) **Ageing population**: An older population will lead to both changing and greater demand for social and community services.

2) **Low income levels**: Low relative income levels can make the costs of everyday needs harder to meet.

3) **Housing stock**: Cold and poor quality homes can lead to poor health and economic outcomes.

4) **Lifestyle changes**: The trend for less active and less healthy lifestyles can give rise to obesity and other wellbeing issues.

5) **Central Government services and funding**: Gradual withdrawal or depletion of government services and funding is leading to greater pressure for local responses.

Challenges 1 and 4 are most relevant to this study. They recognise the rapidly ageing population and the importance of living active lifestyles, reinforcing the purpose of this study. Also, challenges 2, 3 and 5 are pertinent to this study, as low income and poor housing is prevalent amongst many older adults. Central government’s withdrawal of some services they fund has occurred, for example, the HEHA programme discussed above. This has reduced opportunities for disadvantaged socio-economic groups, including many elderly people. It is important to note, in 2012, this strategy was still in draft form. Therefore, it is not yet known what specific actions will be undertaken to address these challenges (Dunedin CC, 2012d).

The Social Wellbeing Strategy has suggested that these issues can be overcome through; equitable access to information, services and opportunities, stronger communities and encouraging local activities (Dunedin CC, 2012c). However, it is suggested that the ageing population warrants its own specific policy with a detailed implementation plan, and this strategy would not be enough to fulfil older adults diverse needs in isolation.
5.6 Conclusion

This chapter has explored the international, national and local level legislation which has encouraged older adults to be physically active. It was argued that there has been no specific framework or strategy which solely gives guidance for older people to be active. However, this chapter identified that this message has been indirectly referred to in multiple forms of legislation.

Firstly, this chapter has examined international guidelines which are important to this research. The Global Recommendations on Physical Activity for Health are the international guidelines concerning the amount of exercise that is recommended for adults aged 65 and older. It is suggested that New Zealand can use these guidelines as a starting point for the development of its own.

Secondly, there were a number of legislative and policy documents at the national level that were relevant to this research, including; the Treaty of Waitangi; the Positive Ageing Strategy; the Local Government Act; the Resource Management Act, the Healthy Eating, Healthy Action Strategic Framework; the Health of Older People Strategy and the He Korowai Oranga: Māori Health Strategy. This central guidance is important because it has directly guided legislation and decision making processes at the local level.

Finally, policy documents relevant to the Dunedin case study were investigated. These included; the Getting Dunedin Active Strategy, the Dunedin Long Term Community Plan and the Dunedin Social Wellbeing Strategy. These are important because they specifically influenced the Older Adults interviewed in the case study of Dunedin.

This legislation at the international, national and local levels will be useful to take into consideration when examining the primary research. The following chapter is the first of the four discussion chapters. It will analyse the key barriers to, and opportunities for, older adults’ engagement in physical activity in New Zealand.
The literature demonstrated that there are a number of barriers that exist at the personal, community and national levels which have restricted older adults from being regularly physically active. These have varied in their effect based on older adults’ age, gender, educational attainment, living arrangement, economic status, health, social skills and experiences. It was also identified that physical activity has enhanced older adults’ social connectivity, psychological wellbeing and physiological health.

This chapter will elaborate and expand on these topics, through exploring the key barriers to, and opportunities for, older adults’ experiences participating in physical activity in Dunedin. The perceptions of planning professionals working within local councils and employees in the sport and health industry will also be included. This chapter will work towards addressing Research Questions one and four: What are the key barriers to, and opportunities for, engagement in physical activity; and to establish how older Māori adults have been encouraged to be physically active in New Zealand, respectively.

Initially, this chapter will examine the key barriers which have prevented older adults from being active. They grew up during a time where there were limited opportunities to be physically active and life was exercise in and of its self. Therefore, many believe that they have lived the entirety of their physically active lives (Grant, 2008b; Koopman-Boyden and Waldegrave, 2009). Others are concerned about the ‘appropriateness’ of exercising and many live with a fear of falls (Daley and Spinks, 2000; Rasinaho et al., 2007; Grant and Mclean, 2011). Many elderly are socially isolated, meaning they are less likely to access services, read local papers and engage in activities within the community (Dwyer et al., 2000). Family dynamics have also influenced this, and it was suggested that those living alone have less time and energy to participate (Sinclair, 2004).
Chapter 6: Barriers and Opportunities

The poor socio-economic status of many older people has prevented them from being active due to their lower levels of disposable income and living standards (Age Concern, 2007). The social environment, and their knowledge of opportunities, has massively impacted the extent they remain participating in physical activity (Sinclair, 2004; PHAC, 2010). Transport issues, including; congested traffic, the time it takes to travel between places, access to private transport and accessible public transport, have all influenced the extent older adults take part in their communities (Davey, 2004).

The extent that participation in regular physical activity has improved the health and wellbeing of older adults will then be examined. The upcoming generation of older people are more positive and prepared to try new things. Retirement has allowed some people more time to be active in society, and there are many highly subsidised programmes for them to take part in. Participation in physical activity has also had socio-cultural importance to many elderly people, encouraging them to have greater social interaction and intergenerational contact. Kaumātua have played an imperative role, providing teaching before involvement in Māori traditional sports. Finally, it will be argued that regular moderate intensity physical activity improves the health and wellbeing of older people, and therefore, reducing their general medical expenditure.
6.1 Barriers

6.1.1 World Transformations

In the research, 83% of the physically active Older Adults interviewed, stated that they had been active throughout their early adult years. A representative from the MSD also noted that: “Ones appreciation of sport and recreation doesn’t fundamentally change on their 65th birthday” (Informant 3). This highlights how important it is to start exercising at a young age, to establish a strong foundation for later years (Koopman-Boyden and Waldegrave, 2009).

People aged 65 to 84 years in 2012, grew up during the Great Depression, the Second World War and/or the post-war period, when there were limited opportunities for children and young people. An Older Adult supported this notion: “Children today are encouraged to experience many things from the day they start school. We weren’t in our day. It was much more academically orientated” (Helensburgh, 9). During this time, access to public transport was limited and private vehicle ownership was rare. An Older Adult explained: “If you wanted to go somewhere off you went. There were no parents picking up and dropping off” (Central Dunedin, 8).

Koopman-Boyden and Waldegrave (2009) argued that many older people were born at a time when living was exercise in itself. An Older Adult remarked: “My family were always involved in sports, but you never heard of older people doing sports” (Brockville, 11). An academic from Waikato University explained:

“Being physically active for health reasons hasn’t been something older people have been socialised into doing...Lots of older people wonder what’s the point of doing [physical activity] at their age. They wonder whether it is going to make a difference when they are already feeling good”.

84
Table 1: Older Adults exemplifying how exercise was perceived when they were growing up

<table>
<thead>
<tr>
<th>Older Adult</th>
<th>Quotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Dunedin, 8</td>
<td>“There was no emphasis on physical activity. It was just what we did”.</td>
</tr>
<tr>
<td>Brockville, 11</td>
<td>“When I was growing up [physical activity] wasn’t important because my elders were walking every day, all the time, food gathering. I think the problem today is that we are urbanised. My elders looked after us grandchildren and we kept them on their feet the whole time. The elders still look after their grandchildren, but there is more for [the grandchildren] to do”.</td>
</tr>
<tr>
<td>Brockville, 12</td>
<td>“Our exercise was part of our duties, like walking to school or gathering food. The only model I had was observing my parents”.</td>
</tr>
</tbody>
</table>

In this research, 83% of the Older Adults interviewed stated that they were satisfied with the amount of time they spent being physically active, despite only 58% fulfilling the MOH Physical Activity Recommendations outlined in the Chapter 1. This suggests that the definition of being ‘physically active’ is variable between individuals (Grant et al., 2007).

The OPEN Forum (July 2012) argued that sometimes services and facilities have not been setup to cater for non-Europeans, especially for marginalised ethnic groups who face health disparities. Many older Māori people believe they do not need to exercise, because they have already ‘done their time’ (Informants 11 and 12). The quotations below exemplify this perspective from the following Māori health providers:
“Once [older adults] have reached a certain stage, they are very content to potter around their homes. To them that is being physically active” (Informant 11).

“There is an old Māori saying that once you reach a certain height you can sit back and watch. However, yesterday and today are two different eras. In the past, when the elders sat back and watched, they were still walking. Now they sit back and watch, and hop into the car. Unfortunately, if you sit back today you will deteriorate” (Informant 12).

This suggests that there needs to be greater clarity and education given to older adults about the importance of being regularly physically active in their later years.

6.1.2 Individual’s Mindset

The fear of falls has also prevented older adults from being active (Rasinaho et al., 2007). An Older Adult reiterated: “Once people have had a fall, they become nervous about exercising again” (Musselburgh, 7).

The ACC (2012) explained that people aged 65 and older, have a one in three chance of falling. For people aged 80 and older, this risk rapidly increases to one in two (ACC, 2012). Sport Otago explained that people, who have been sedentary throughout their lives and suddenly start exercising, are more susceptible to injury because their bodies are not used to physical activity (Informant 7). This further reinforces the importance of exercising from a young age.

It was also widely stipulated in the research, that many older people were concerned about the ‘appropriateness’ of exercising in their later years (Daley and Spinks, 2000; Grant and Mclean, 2011). Informants 5, 6 and 13 explained that the sensitivity and stigma associated with being ‘just too old’, or believing they just ‘cannot do it’, has stopped them from being active. An academic from Waikato University indicated that this has been an “awkward thing to push through and defend” when older people do not exercise for this reason. A representative from Te Tumai Ora identified that there are many things happening in the Māori community in East Otago, however, in general Māori people have been very ‘fussy’ what they participate in (Informant 11).
The Older Adults interviewed had strong opinions about those who lacked motivation to exercise and these are highlighted in Table 2:

**Table 2: Older Adults’ attitudes towards those who lacked the motivation to exercise**

<table>
<thead>
<tr>
<th>Older Adult</th>
<th>Quotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Dunedin, 1</td>
<td>“Some people don’t realise if they get past the pain of physical activity, they will be ok and feel better for it”.</td>
</tr>
<tr>
<td>St Claire, 3</td>
<td>“You don’t realise how bad you are, but other people can see it”.</td>
</tr>
<tr>
<td>Musselburgh, 7</td>
<td>“Lots of people don’t get out there. Lots of it is motivation. You can encourage people, but they have to want to do it themselves”.</td>
</tr>
<tr>
<td>Brockville, 10</td>
<td>“When you get older, physical activity is not so much of a priority to some people”.</td>
</tr>
<tr>
<td>Brockville, 12</td>
<td>“It is about getting that A into G and doing it! Lots of people don’t get off their chuffs and do anything”.</td>
</tr>
</tbody>
</table>
6.1.3 Social Contact

Many people lose their confidence to participate in society and to try new things as they get older. Consequently, they have lacked the courage to make the initial step to improve their health and wellbeing (Dwyer et al., 2000). Many believe that exercise is threatening because it requires time and energy, and does not always have immediate benefits (Rasinaho et al., 2007). Suffering from lack of confidence was a commonly reported barrier which prevented Older Adults from being physically active.

Table 3: Poor self-confidence has prevented Older Adults from being physically active

<table>
<thead>
<tr>
<th>Older Adult</th>
<th>Quotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Dunedin, 1</td>
<td>“Not wanting to join a group on my own”.</td>
</tr>
<tr>
<td>St Claire, 4</td>
<td>“I initially experienced difficulty getting outside my comfort zone”.</td>
</tr>
<tr>
<td>Caversham, 6</td>
<td>“My own reluctance to get up and go”.</td>
</tr>
<tr>
<td>Musselburgh, 7</td>
<td>“Some people won’t go out unless they are part of the group”.</td>
</tr>
<tr>
<td>Brockville, 12</td>
<td>“Many people are afraid to mix with others for the first time”.</td>
</tr>
</tbody>
</table>

Research by O’Brien-Cousins (2000) identified that women aged 65 and older understood that it was important to be physically active. However, the research inferred that older women feel physically vulnerable when taking part in physical activity, and are often uncertain about the real negative and positive implications for exercising. This uncertainty has encouraged many older women to state medical reasons to justify why they are not regularly physically active. This suggests that environments and opportunities are provided to encourage older women specifically to be physically active (O’Brien-Cousins, 2000).
A council representative indicated that it has been challenging to keep older people involved in physical activity, because many lose their social connections and self-expression as they grow older (New Plymouth DC). The OPEN Forum (July 2012) explained that older adults have often had poor levels of engagement in mental health services, because of the stigma and misunderstandings which has been associated with mental illness. This ‘shame’ has prevented older people from seeking assistance, and supporting others with this condition (OPEN Forum, July 2012). The 2010 Social Report revealed that 13% of males and 19% of females aged 65 and older, had experienced loneliness over the last twelve months (MSD, 2009). Elderly people experiencing this will have less energy to be actively engaged in physical activity opportunities.

Elderly people are more likely to be physically active if they are living in their own homes. However, a representative from Otago Grey Power has strived to “ensure we don’t leave the vulnerable ones in their own homes without home help...[Because] people who need home help are more likely to be isolated” (Informant 9). An Older Adult postulated: “If people had more [home] help, they would be more encouraged to participate in society”.

The OPEN Forum (July 2012) argued that socially isolated people who do not access services, join clubs or read local papers, have a higher probability of being marginalised, and less likely to engage in activities within the community. However, difficulty has been experienced reaching these people, because they rarely seek help (OPEN Forum, July 2012). This is further supported by Informant 8: “Many [older adults] don’t leave their homes, are struggling to pay for heating and food and really live on the pension. They are only just making ends meet”. This is reinforced by an Older Adult: “The difficulty is reaching those people who can’t walk or drive and are housebound. They are the ones who are really limited” (St Claire, 4).
6.1.4 Family Dynamics

The RNZFB highlighted that family members have often spoken on behalf of their older members. Consequently, in many cases, older adults have been silenced and missed out on the benefits from participating in these physical activities (Informant 13). Literature by Grant and Mclean (2011) reinforced that older adults' physical activity participation has been both positively, and negatively, impacted by the social support of the important people in their lives. Informant 6 explained:

“Some health professionals are very active in encouraging older adults to be physically active, while others are very inactive. Some family and friends encourage their older grandparents and parents to be active, while others have discouraged it”.

Older adults who live with a partner or family member have higher levels of participation in physical activities, compared to those who live alone. This is because living with another person has generally provided support and companionship for this involvement (Daley and Spinks, 2000; Dwyer et al., 2000; Rasinho et al., 2007; Grant and Mclean, 2011). Sinclair (2004) suggested that those living alone may have less time and energy to take part, due to having to carry out domestic duties alone. Widowed women living alone have the lowest recorded levels of engagement in physical activity, and therefore, support organisations should actively seek out those living alone (Koopman-Boyden and Waldegrave, 2009).

In contrast, the Older Adults interviewed in the research, identified that there were significantly more female members in the sport and recreational organisations they belonged to. The Older Adults suggested that this was because “women are keener to join things than men” (Musselburgh, 7) and “invariably, it is women who keep most active and have the most social contact” (Central Dunedin, 8). A council representative exemplified that older men are underrepresented in the health area, because most organisations are run by women (Dunedin CC: Informant 2).
An Older Adult postulated that elderly women in the 21st century are still confined by gendered societal pressures: “I think lots of older women’s’ roles are still in the home” (Central Dunedin, 8). In the research, some Older Adults suggested that sick husbands have negatively impacted their wives’ lifestyles by preventing them from participating in physical activity. This is represented in Table 4:

**Table 4: How a sick husband can negatively impact their wives’ livelihoods**

<table>
<thead>
<tr>
<th>Older Adult</th>
<th>Quotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Dunedin, 1</td>
<td>“One member of our group was very active. However, she has to stay at home now to care for her very sick husband, so can’t come to our exercise classes most weeks”.</td>
</tr>
<tr>
<td>South Dunedin, 2</td>
<td>“I used to have a sick husband which prevented me from getting out and about”.</td>
</tr>
<tr>
<td>Central Dunedin, 8</td>
<td>“I do have a theory, but it is probably a sexist theory. The sick husbands help deteriorate the women. I see this in my friends now. As the husband becomes ill and his health deteriorates, their wives activities diminish. In the end they become housebound and lose their fitness...When the husband dies the wife’s life starts over again...”.</td>
</tr>
<tr>
<td>Brockville, 11</td>
<td>“My husband had a stroke and cannot walk that far. So I had to slow down a lot too”.</td>
</tr>
</tbody>
</table>

An Older Adult suggested that there should be a service offered where someone comes into a home and cares for a sick spouse for two hours. This will allow the spouse to have time to stay physically active (South Dunedin, 2).
Chapter 6: Barriers and Opportunities

6.1.5 Socio-economic Status

The impoverished financial situation of many older people has prevented them from being physically active, due to their lower levels of disposable income (Age Concern, 2007). In 2007, the New Zealand Superannuation provided an income of $11,000 to $14,000 for older adults, and approximately 60% of these adults relied on this as their highest source of income (Age Concern, 2007). Many older adults have struggled to finance additional travel, sports equipment and membership fees to participate in sport and recreational activities (Rotorua DC, Upper Hutt CC; Informants 2, 4, 6 and 7).

A member of the OPEN Forum (July 2012) mentioned that there are disparities between older adults ‘who are well off’ and those ‘who are not well off’ living in Dunedin. Throughout this city there were numerous exercise classes and programmes which were highly subsidised for older people, however, cost was still a barrier for 17% of Older Adults interviewed in the research. One felt that “it all adds up after a while” (South Dunedin, 2) and another indicated that “there are lots of older people who want to do things. But if they have to pay rent out of their pension, there is not much left after you pay the rest of your bills” (South Dunedin, 1).

Māori older adults are on average more dependent on the New Zealand Superannuation (Age Concern, 2007). A Māori health provider explained that swimming is very popular amongst older people, particularly Māori. However, this has been expensive, especially for those caring for their mokopuna when they take them along. The importance of providing subsidised programmes for economically disadvantaged older adults was exemplified by the following Māori health providers:

“Sadly, asking for $2 or $5 for an exercise class is a lot of money for people out this way who have nothing. Marae Zumba being free, [older people] are on board. As soon as you throw in a small cost, they are not going to come” (Informant 11).
“People say nothing comes for free, but I think when things come for free you get a change in the type of people participating in activities. Poor people will not participate if there is cost attached to activities. Particularly older people, because they are more likely to be economically disadvantaged” (Informant 12).

6.1.6 Social Environment

The outdoor environment has massively impacted the extent older people remain participating in physical activity, and has also influenced their attitudes, values and opinions (MOH, 2003; Sinclair, 2004; PHAC, 2010). Therefore, the association between people’s exercise patterns and the way they perceive their local urban environment must be examined (Rasinaho et al., 2007; Sport NZ, 2012b). A representative from Otago Grey Power explained the large number of bars in the Dunedin’s Octagon had impeded older adults’ access to this location (Informant 9). In the research, a number of Older Adults also expressed they had felt uncomfortable attending activities and events in this area (South Dunedin, 2; Caversham, 5; Brockville, 12). The following quotes from Older Adults represent this perspective:

“In the past I have had to walk on the road when trying to catch the bus, because there was no room on the footpath [in the Octagon]. This would be a huge issue for someone with a mobility problem...” (Caversham, 5)

“There are far too many bars around the doorway of the Octagon Club. I don’t know how they can justify having all those bars in the Octagon!” (Brockville, 12).

Age discrimination has prevented elderly people for taking part in physical activity (O’Brien-Cousins, 1998). In the past, this prejudice has marginalised older adults by restricting their access to public places, involvement in the community and personal facilities (Daley and Spinks, 2000; Allen, 2008). However, the following council representatives explained that in general older people were vastly respected within their communities (Table 5).
Table 5: Council representatives expressing that older people had a respected place within their communities

<table>
<thead>
<tr>
<th>Council</th>
<th>Quotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Plymouth DC</td>
<td>“Older people actually believe [this discrimination] is worse than it actually is. Young people in particular speak very fondly about them, and their value to society”.</td>
</tr>
<tr>
<td>Rotorua DC</td>
<td>“This community has a very good culture around older people”.</td>
</tr>
<tr>
<td>Representative 2</td>
<td></td>
</tr>
<tr>
<td>Upper Hutt CC</td>
<td>“When we did our survey we asked older people whether they felt respected...97% felt somewhat respected within the community. Only one person out of all the respondents felt like they were not respected”.</td>
</tr>
<tr>
<td>Representative 1</td>
<td></td>
</tr>
</tbody>
</table>

A fear of crime has prevented older adults from participating in society (Allen, 2008; MSD, 2010). A council representative further supported this, by explaining many older adults have been “too afraid to explore their own neighbourhood, despite New Zealand being an incredibly safe place” (Dunedin CC: Informant 2). They argued that many older people see violence against elderly people overseas in Singapore, Taiwan or America on television, and believe that this discrimination is happening in their own neighbourhoods. In the research, 83% of Older Adults indicated that they felt safe living in their neighbourhoods, however, 25% stated that they would not leave their homes at night for safety reasons. Every Older Adult interviewed said that they had never felt unsafe or threatened while participating in physical activity.
6.1.7 Knowledge of Opportunities

Access to technology has often been a barrier which has prevented older adults from being informed about opportunities for physical activities which are available in their community (Upper Hutt CC: Representative 1). Local council representatives also identified that a lack of relevant and up-to-date information about what was offered in their communities has been an obstacle, which has prevented many older people from taking part in a physical activity (Dunedin CC; New Plymouth DC; Rotorua DC; Upper Hutt CC).

In the research, the Older Adult respondents were asked how they were informed about physical activities they currently participated in. The results showed that 38% were notified through word of mouth, 31% were made aware through belonging to an existing club, 15% through reading the local paper, 8% through watching television and 8% were informed by listening to the radio. In general, Older Adults believed that there was a significant need to improve how elderly people were informed about opportunities available in their communities (Table 6).
Table 6: Older Adults’ perceptions of how elderly people could be better informed about opportunities for physical activity in their community

<table>
<thead>
<tr>
<th>Older Adult</th>
<th>Quotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Dunedin, 1</td>
<td>“Apart from the Octagon Club, there is not a lot promoted for older people”.</td>
</tr>
<tr>
<td>St Claire, 4</td>
<td>“Lots of classes come into the community. But whether they advertise them is another thing”.</td>
</tr>
<tr>
<td>Caversham, 5</td>
<td>“I think lots of people are unaware of the opportunities which exist in their community”.</td>
</tr>
<tr>
<td>Caversham, 6</td>
<td>“I believe we could be better informed about the things which are available. The things you see and hear about are usually through word of mouth”.</td>
</tr>
</tbody>
</table>

6.1.8 Transport

Traffic and the time it takes to travel between places have prevented older people from leaving their homes and being active, particularly in big cities like Auckland (Informant 13). For example, the Age Concern Positive Ageing Centre was setup in Auckland’s CBD for older adult groups to run classes and activities. However, difficulty has been experienced increasing the usage of this venue. This is because it is located in the CBD where few older people live, and therefore, require transport to get there. Older adults who own a private vehicle, often do not want to go to this venue because there are only a few free parking spaces close to this building (Auckland Council). An Older Adult identified that: “When you organise activities and events you have to think about how people are going to get there. Mainly people rely on the buses” (Musselburgh, 7).
Chapter 6: Barriers and Opportunities

Approximately 10% of older people live in rural areas and older Māori adults have a higher probability of living in a rural area, compared to other New Zealanders (Statistics NZ, 2004). In the OPEN Forum (July 2012) inequality concerns were highlighted in relation to the uptake of health and recreational services among Māori adults in rural areas. This was particularly noticeable among older Māori adults, because there are a small number of Māori adults aged 60 and older living in rural areas (OPEN Forum, July 2012). A Māori health provider in East Otago highlighted how older Māori adults living in rural areas can become detached:

“Lots of stuff is happening in [Dunedin], but access to transport is a huge barrier here. Lots of [older people] do not drive or own a car, and there is no public transport out this way” (Informant 11).

In 2007, 57% of people aged 75 and older held a drivers licence in New Zealand (Thames-Coromandel DC, 2011). Losing access to private transport negatively impacts people's social networks and travel patterns, and consequently, these people miss out on opportunities to stay physically active (Davey, 2004; Age Concern, 2007). Therefore, many people become reliant on public transport in their later years (Informant 8). Unfortunately, older people are often physically unable to use public transport, because they lack the mobility to move to and from the bus stop to reach their destinations (New Plymouth DC, Rotorua DC: Representative 1).

Research by Firth et al. (2012) indicated that adults aged between 65 and 80 years were generally content with the public transport system, yet, older people stated they would make better use of it if they were more physically capable. In the research, 92% of Older Adults interviewed stated that they were within walking distance to a bus stop. Insufficient public transport significantly impacts the extent of people's social networks and quality of life (Daley and Spinks, 2000). An Otago Grey Power representative argued that there is no public transport on Good Friday, Easter Sunday,
Christmas Day and after 6.30 pm on Sunday nights in Dunedin. This is because the shops are not open during these times in Dunedin. They stated:

“Public transport shouldn’t just be there for shops. It should be there for people’s accessibility to get around the city...We have people who just don’t go out because they do not have access to public transport during these times”.

The Otago Grey Power representative believed the bus services in Dunedin were reliable, however, the services they offered were inadequate. They stated:

“I don’t believe there has been any forethought into what can be done to make public transport more attractive in Dunedin. There is no use having a bus route that tiki tours around the place, when someone can drive straight into town” (Informant 9).

This is reinforced by an Older Adult: “The bus is poor where I live and comes every 40 minutes. In the weekend and at night you can walk home before the bus actually comes” (Brockville, 11). Another argued: “If I had to depend on someone to come fetch me, or walk to a bus stop, or take a taxi I wouldn’t be going anywhere. So driving is essential (Helensburgh, 9).
6.2 Opportunities

6.2.1 Changing Circumstances

There is a growing awareness of how important it is to stay physically active in later years. This is highlighted in Table 7 below:

**Table 7:** Key Informants' perceptions of how physical activity is becoming increasingly more recognised, as an important part of people's later years

<table>
<thead>
<tr>
<th>Key Informant</th>
<th>Quotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informant 6</td>
<td>“The younger generation is coming through where physical activity is part of their lifestyle...Now being old is not a time to rest and hide away. This old stereotype is being gradually dismantled”.</td>
</tr>
<tr>
<td>Informant 7</td>
<td>“People are becoming more active, living longer and the population of older adults are generally more physically active than they stereotypically used to be”.</td>
</tr>
<tr>
<td>New Plymouth DC</td>
<td>“People in their 40’s and 50’s are now doing more than what people in their 60’s and 70’s did when they were that age”.</td>
</tr>
</tbody>
</table>
The RNZFB explained that the upcoming generation of older people are increasingly more positive and prepared to try new things with their “have a go attitudes” (Informant 13). An academic at Waikato University postulated that in the future, older adults will become more motivated to be physically active: “The proactive generation of older adults are arising now, who won’t want to sit down and wait for a council, Government or an organisation to do something for them” (Informant 6). They said that this has already become evident in contemporary society, through the number of programmes which have been initiated and operated by older people, including; walking, Tai Chi and palates groups (Informant 6).

In the research, the range of sport and recreational activities Older Adults had participated in between June 2011 and June 2012 is highlighted in Appendix F. This encompasses a variety of high to low intensity activities. Older Adults generally showed a preference for participating in indoor, low impact forms of physical activity, which included; exercise classes, swimming and going to the gym. Outdoor recreation comprised of track clearing and walking. Incidental physical activities that they were involved in comprised of; house maintenance, gardening and playing with their grandchildren. Every Older Adult stated that there were enough opportunities for them to be physically active within their respective communities (Table 8).
Table 8: Older Adults’ perceptions that there were sufficient opportunities for them to be physically active within their communities

<table>
<thead>
<tr>
<th>Older Adult</th>
<th>Quotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Dunedin, 1</td>
<td>“There are lots of things people can do, but they just don’t turn up”.</td>
</tr>
<tr>
<td>Caversham, 6</td>
<td>“The opportunities are there, it is whether people want to take them or not”.</td>
</tr>
<tr>
<td>Helensburgh, 9</td>
<td>“I certainly have had no difficulty finding things to do. Not sure if that's just me. I am amazed how much there is that goes on in Dunedin”.</td>
</tr>
<tr>
<td>Brockville, 12</td>
<td>“You have to get of your bum and look for it! I don’t have enough time to do all the things I want to do”.</td>
</tr>
</tbody>
</table>

There is strong evidence which suggests that older adults who are better off financially, have higher levels of participation in physical activity, than those who are economically disadvantaged (MSD, 2007). Income for pensioners has also significantly increased over the past two decades (Sinclair, 2004). The Retirement Commission has educational processes to help people develop good saving behaviours (MSD, 2011). The 2010 Social Report indicated that only 9% of adults aged 65 and older were in low-income households. Approximately, 3% of older people lived in a crowded household, which was the lowest rate for all age groups (MSD, 2010). A representative from MSD stated:

“The incidence of poverty or deprivation amongst older adults in New Zealand is about the lowest in the Organisation for Economic Cooperation and Development. It only effects about 5% of superannuates, which is a much lower proportion than any other age group in Zealand” (Informant 3).
6.2.2 Uptake of Activities

The Active New Zealand Survey indicated that the three most popular sport and recreational activities people participated in were; walking, gardening and swimming (SPARC, 2003a). Therefore, it was argued that cost should not be seen as a barrier for older people to stay physically active, as these activities are either free or highly subsidised, and require little equipment (Informants 1 and 6). In the research, all the Older Adults interviewed took advantage of the highly subsidised classes and programmes offered to senior citizens in Dunedin. An Older Adult indicated: “Lots of these things don’t cost that much. Especially with the free buses, you only have to get there” (Brockville, 12).

Retirement has allowed some people to have more time to become active within society (Alpass, 2007; Allen, 2008). An Older Adult stated: “Exercise is a luxury...When you get older you lose a lot of things, but you do have more time...” (Central Dunedin, 8). This is reinforced by a representative from the MOH: “There is no reason why older adults can’t get to the same amount of exercise that younger people get. Potentially these people have the time to get out and be physically active” (Informant 2).

The RNZFB explained why many older members initially become involved in a sport or recreational programmes provided by this service: “Many older people have more time and money to try new things, and want to meet other like-minded people. This could be because their children have left home or their partners have passed away” (Informant 13). An Older Adult explained how a ‘sense of fear’ motivated them to become more physically active, when they broke their foot and were bed-ridden for six weeks:

“It was that horrible feeling I could not do anything. This made me value something I had initially taken for granted, which I may not always be able to do. It gave me an insight of being an older person...” (Central Dunedin, 8).
Experiencing a life transition or change was a key reason why Older Adult participants initially became involved in a physical activity. This is highlighted in Table 9:

**Table 9: Outlines other ‘life changes’ which motivated Older Adults to become active**

<table>
<thead>
<tr>
<th>Older Adult</th>
<th>Quotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Dunedin, 1</td>
<td>“I came here twelve years ago from Germany and did not know anybody or anything. It was great to join clubs and meet new people”.</td>
</tr>
<tr>
<td>Caversham, 5</td>
<td>“I lost my husband eight months ago so [attending exercise classes] was about getting out of the house”.</td>
</tr>
<tr>
<td>Central Dunedin, 8</td>
<td>“When I moved down to Dunedin a few years ago I chose to leave my car in Auckland. That is why I walk everywhere I go now”.</td>
</tr>
<tr>
<td>Helensburgh, 9</td>
<td>“Two and half years ago I was widowed. I was absolutely stunned what had happened to me and how I was going to fill in the rest of my time. I was forced to find something to get me out of the house and keep me in the world”.</td>
</tr>
</tbody>
</table>
6.2.3 Socio-cultural Importance

Chodzko-Zajko (2000) argued that taking part in physical activity has encouraged intergenerational contact, which has subsequently decreased negative stereotypes against older people. This notion is also reinforced by a council representative: “Older people are becoming more involved in mainstream activities, and this is likely to break down generational barriers” (Auckland Council). Physically active older adults are also more likely to acquire, and maintain, an active role within society, such as volunteering or becoming a community leader (Chodzko-Zajko, 2000). Informant 8 argued that the key requirements to encourage older people to be physically active were: “Giving them the opportunity to have fun and to interact with others”. In the research, the social element was a key reason why Older Adults were involved in a physical activity (Table 10).

Table 10: Quotations from Older Adults exemplifying that the social element was a key reason for their engagement in physical activity

<table>
<thead>
<tr>
<th>Older Adult</th>
<th>Quotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Dunedin, 1</td>
<td>“It is much nicer doing physical activity and exercises with other people”.</td>
</tr>
<tr>
<td>South Dunedin, 2</td>
<td>“The Octagon Group is very social and a great way to meet new people”.</td>
</tr>
<tr>
<td>Caversham, 6</td>
<td>“I enjoy doing it and the people you meet. Coffee afterwards is always quite important”.</td>
</tr>
<tr>
<td>Musselburgh, 7</td>
<td>“Lots of us [in the Octagon Club] are on our own. It’s about having company”.</td>
</tr>
<tr>
<td>Brockville, 11</td>
<td>“I like the social side. At bowls we stop in the middle for a cooked lunch”.</td>
</tr>
</tbody>
</table>
Chapter 6: Barriers and Opportunities

Older Māori adults have participated in physical activity for a number of cultural and social reasons. An Older Adult explained that through marae, they have facilitated sport engagement by providing their knowledge of traditional activities (Brockville, 11). Kaumātua have played an imperative role, providing the teaching, and a cultural element, before people take part in traditional Māori activities, such as waka ama and kapa haka. In return, they have attained a sense of mana and leadership within their community (Informant 10).

Older Māori adults have particularly enjoyed engaging in physical activity when it is has taken a whānau-based approach (Informant 12). A Māori health provider explained that older Māori adults have often invited their mokopuna to participate in Marae Zumba with them (Informant 11). The Tainui Games have been hosted every two years and have a strong emphasis on whānau. Older Māori adults have provided teaching, and a number of activities have also been specifically hosted for them (Informant 6). Informant 12 explained that these activities are generally “co-ordinated by the older ones because it is about supporting the rangatira”. However, the physical activity element had been an additional benefit resulting from this activity (Informant 11).
6.2.4 Financial Imperative

A NZRA representative explained that many older people have not wanted to pay a ‘realistic price’ for a sport or recreational activity that is not subsidised. In many cases, they have had the money, but “do not want to pay for what they see as ‘recreation’, where it is actually a good health prevention measure” (Informant 5). Regular moderate-intensity physical activity has been proven to enhance the health and wellbeing of older people, and therefore, has reduced their medical expenses. Regularly active older adults are more likely to complete their domestic chores independently, which would have alternatively required home-help. This has resulted in huge financial savings for older adults themselves and the central government (Sincliar, 2004). Adults, who have engaged in active transport, have benefited from numerous health benefits and saved money on petrol and parking fees (Greater Wellington RC).

Elderly people who live active lifestyles, generally have lower rates of mortality, higher life expectancies and fewer years living with a disability (Daley and Spinks, 2000; Sincliar, 2004). Similarly, exercise has helped delay the onset of age-related health problems and allowed people to have better control of their medical conditions (Andrews, 2002). This has encouraged a faster and more complete recovery after being sick (Daley and Spinks, 2000; Dwyer et al., 2000). The OPEN Forum (July 2012) argued that older people should stay active to; prevent falls, help manage their existing medical conditions and increase their quality of life. In the research, every Older Adult who had an existing health condition, explained that engaging in physical activity had helped them manage this (Table 11). Regular physical activity helped the Older Adults control conditions, including: arthritis, high blood pressure, obesity, heart disease, asthma, anxiety and diabetes.
Table 11: Exemplifying how engaging in physical activity had helped Older Adults manage their existing health conditions

<table>
<thead>
<tr>
<th>Older Adult</th>
<th>Quotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Dunedin, 2</td>
<td>“I was told when I was discharged from hospital that I had to keep line dancing up because it is good exercise. I’m pleased I listened”.</td>
</tr>
<tr>
<td>St Claire, 3</td>
<td>“I have had a problem with my arm, but exercise helps strengthen these muscles”.</td>
</tr>
<tr>
<td>Caversham, 6</td>
<td>“Exercise helps keep me out of hospital, by keeping my lungs clear and functioning”.</td>
</tr>
<tr>
<td>Musselburgh, 7</td>
<td>“I get short of breath sometimes. But you got to still exercise because it isn’t going to help sitting around”.</td>
</tr>
<tr>
<td>Brockville, 12</td>
<td>“I have arthritis and I am asthmatic. If I don’t get out and move, I won’t move....I think it is only because I keep going with physical activity, I can still get out and about today”.</td>
</tr>
</tbody>
</table>
6.2.5 Biopsychosocial Importance

Older adults who live active lifestyles have better; mobility, posture, velocity, flexibility and a greater range of movement (Chodzko-Zajko, 2000; Sport Otago, 2012). This has reduced their likelihood of falls, fractures and injuries, allowing them to have more independence in their later life (Chodzko-Zajko, 2000; Dwer et al., 2000; Andrews, 2002; Sinclair, 2004; Overdorf, 2005; Christchurch CC, 2011 Age Concern, 2012b; Sport Otago, 2012). In the research, the primary reason that Older Adults were physically active was to have better control of their arthritis and joint stiffness (Table 12).

Table 12: Older Adults expressing how imperative physical activity was to manage their arthritis and joint stiffness

<table>
<thead>
<tr>
<th>Older Adult</th>
<th>Quotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caversham, 5</td>
<td>“A few years after I retired, I found I was getting a bit stiff and thought it was about time I started walking. I feel much better for doing it”.</td>
</tr>
<tr>
<td>Musselburgh, 7</td>
<td>“I have a little bit of arthritis in my right knee. If I don’t exercise it becomes worse. You really have to do exercise on a regular basis”.</td>
</tr>
<tr>
<td>Brockville, 10</td>
<td>“When you have arthritis you have to keep moving. If you don’t, you will just stiffen up and that’s not good for you”.</td>
</tr>
<tr>
<td>Brockville, 11</td>
<td>“If you don’t use it, you lose it. If you do exercises, you won’t suffer the pain you would if you didn’t. If I didn’t exercise I will get too stiff to even move”.</td>
</tr>
<tr>
<td>Brockville, 12</td>
<td>“If I start getting lazy, I start to feel my bones and pile on the weight”.</td>
</tr>
</tbody>
</table>
In the research, every Older Adult interviewed stated that their involvement in physical activity had improved their overall health and wellbeing. An Older Adult identified that insufficient physical activity in younger years leads to reduced freedom in later life: “If one doesn’t exercise when they could be learning how to, they end up doing less and less in their later years” (Central Dunedin, 8).

Another Older Adult outlined that it is imperative to stay physically active in retirement: “If you sit at home all day and do nothing, you will only grow old... The more you do, the younger you feel!” (Brockville, 11). Others explained that is essential for people to start exercising before they become too old: “There are many older people who are overweight and have problems doing everything. It is too late now, their health has gone! I think if only they had got moving sooner” (Brockville, 12) and “the ones which aren’t active seem to just shrivel away” (Brockville, 10).

Physical activity has improved cognitive functioning, by postponing age-related decline in the central nervous system, and increasing processing speed and reaction times (Chodzko-Zajko, 2000; WHO, 2012a). An Otago Grey Power representative explained how regular exercise is imperative for cognitive functioning: “If the body is active, the mind will also be active. These are both going to benefit the individual all the way through” (Informant 9). In the research, all Older Adult participants identified that being physically active had improved their cognitive functioning. An Older Adult exemplified: “Exercise is really good mentally for you. Also good for the brain because you are learning new skills all the time” (South Dunedin, 2). Another stated: “Attending exercise classes has given me something to occupy my brain with, as well as my body” (Helensburgh, 9). These positive factors reinforce that it is imperative that local councils and sport and recreational providers, encourage adults to be physically active in their later years.
6.3 Conclusion

Physical activity is a complex, multi-dimensional behaviour which is shaped by a variety of factors at the individual, social and environmental levels (PHAC, 2010). This chapter has examined the key barriers to, and opportunities for, older adults’ participation in physical activity. It was discovered that there are a number of barriers which have prevented older adults from being active. These include the impact of their opportunities growing up, mindset, social contact, family dynamics, socio-economic status, social environment, knowledge of opportunities, and access to transport.

This chapter then examined the key opportunities for being physically active. Many older adults have been encouraged to become more active in their later years due to their improving life circumstances. Retirement has given some people more time to be active in society, and take advantage of the number of highly subsidised programmes. It has encouraged elderly people to have greater social interaction and intergenerational contact. Physical activity has been proven to enhance the health and wellbeing of older people, and therefore, reducing their general medical expenditure.

These identified key barriers and opportunities can guide the formation of relevant future legislation and policies, enabling these interventions to be more targeted in the future. However, ambiguity exists about who is responsible for older adults to be physically active in New Zealand. The following chapter will discuss this.
Chapter 7: Key Stakeholders

Key Stakeholders

The context chapter investigated the history of organisations responsible for older adults’ participation in physical activity, including a discussion about; The Hillary Commission, Sport and Recreation New Zealand, Sport New Zealand, and the associated campaigns and programmes. The functions of key stakeholders and community organisations which have facilitated older adults to be physically active were also discussed. This included an analysis of the; Ministry of Health, the Ministry of Social Development, the Accident Compensation Corporation, the New Zealand Recreational Association, the Royal New Zealand Foundation of the Blind and Age Concern.

However, in the research it was apparent that ambiguity exists about which organisation is responsible for encouraging older adults to live physically active lifestyles. The perceptions of; Older Adults in Dunedin, planning professionals working within local councils and employees in the sport and health industry, will be included in addressing this apparent ambiguity. This chapter will work towards addressing Research Questions Two and Four as outlined in Chapter 1: What services and resources are currently provided to encourage older adults to participate in physical activity in New Zealand; and to establish how older Māori adults have been encouraged to be physically active in New Zealand, respectively.

This chapter will outline that the Ministry of Health became responsible for physical activity at both the national and policy making levels, when Sport New Zealand changed its mandate from ‘physical activity’ to focus more on ‘sport and recreation’ in 2009. It will be argued that Sport New Zealand has given little consideration to older adults in their plans and strategies, and that the Green Prescription programme is the main area where this Crown entity focuses on the older adult population. Regional Sports Trusts which have been contracted by local councils to carry out their services, and provide opportunities for older people will then be discussed. Finally, the Green Prescription programme will be examined, including; an overview, a case study example of Sport Otago, older adults’ experiences in this programme and the representation of the tangata whenua.
7.1 Government’s Responsibility or Not?

7.1.1 Change in Mandate

In 2012, Sport NZ was the Crown entity responsible for monitoring and encouraging sport and recreation within New Zealand (Gillon, 2010; Sport NZ, 2012d). However, the MOH became responsible for physical activity at both the national and policy making levels when Sport NZ changed its mandate from ‘physical activity’ to focus more on ‘sport and recreation’ in 2009 (Informants 4 and 6). Informant 2 identified that Sport NZ and MOH have complemented each other because “Sport NZ has gone down the high level sport route, and the MOH has picked up the recreational side”. However, an informant explained that the MOH are a policy body, and are not programme deliverers:

“The MOH would not see itself as the main Government department responsible for increasing physical activity in the population or for older people. In this present Government environment, the Government believes that being active and eating healthy food is the individual’s responsibility. This is why we don’t have a Push Play campaign anymore...” (Informant 1).

In the research, it was evident that the shift in Sport NZ’s mandate has been controversial. Informant 4 suggested that Sport NZ solely promoting sport and recreation, has meant that being physically active has been marketed to a smaller audience: “Focusing on sport and recreation [is] only targeting those people who are already physically active”. This does not include people who are already active taking part in “incidental activity and active transport”, and other activities older people see as physical activity (Informant 4). An academic from Waikato University argued that this change in mandate has meant that there is no organisation which represents ‘active age ing’ to encourage older adults to be active:
“Physical activity in a health sense is currently situated in the MOH. This is quite a departure because who is responsible for active ageing? Is it part of the MOH? Or is it a part of Sport NZ? It could be a part of both, but it sort of segments out” (Informant 6).

7.1.2 Sport New Zealand

It has been identified that Sport NZ has given little consideration to older adults in their plans and strategies. This is reinforced by an academic from Waikato University: “Over the last decade there has not been much energy given to older adults in Sport NZ. Little with a very small ‘L’” (Informant 6). Sport NZ explained that older adults are not specifically targeted or referred to in their strategies or programmes: “We don’t have a specific policy for older adults, and we certainly don’t plan to in the near future”.

However, Sport NZ envisaged that “older adults will form part of the sport plans [they] do. Simply because it is meant to be from cradle to grave” (Informant 4). They believed that their broad focus has enabled them to reach a wide range of people: “Our vision is for more New Zealanders participating in sport and recreation. So that means all New Zealanders, which includes older people”. The GRx programme is the main area where Sport NZ focuses on the older adult population. This is highlighted in greater detail in section 7.1.4.

However, Sport NZ has recognised the needs of the tangata whenua. They noted that they have a surviving initiative called He Oranga Poutama which $1.7 million is invested annually into. This has encouraged Māori to take part in sport and recreation. They expanded: “It is promoted ‘as Māori’ so anyone can do it. You don’t have to be Māori, but it is promoting lots of the traditional Māori activities. Programmes run are often held on the Marae” (Informant 4).
7.1.3 Regional Sports Trusts

Informant 2 explained that “programmes enforced by RSTs have been most successful when they have been tailored to their local communities”. RSTs have been instructed by Sport NZ to consider the demographics of their communities. Therefore, if there is a high or increasing proportion of older adults living in a region, RSTs must fulfil the needs of these people through specific strategies and programmes (Informants 2 and 4). If a RST does not have this capacity, Sport NZ has encouraged RSTs to partner with their local council or organisations which represent the needs of older people (Informant 4).

There has generally been little direct interaction between Sport NZ and local councils. However, local councils from New Plymouth, Rotorua and Dunedin, have worked collectively with their own RSTs to maximise opportunities for older adults to be physically active. These councils have provided their respective RSTs with funding, resources and support, which has enabled these RSTs to effectively carryout their services, host events and run programmes within their regions.

For example, the New Plymouth DC described that they have contracted Sport Taranaki to run an ‘Active in Age’ programme. This scheme has offered a number of highly subsidised classes for older adults between 10am and 12pm every Tuesday morning. Classes have included; marching, floor exercises, indoor bowls, line dancing, Tai Chi and breaks for morning tea. Likewise, Sport Bay of Plenty has been contracted by the Rotorua DC to research what are the barriers to, and opportunities for, engagement in physical activity among the different age groups within the region. This has allowed Rotorua DC to cater for the needs of the ageing population (Rotorua DC). The Dunedin CC has worked consistently and collectively with Sport Otago, to assess the provision of sports facilities within the Otago region (Dunedin CC).
However, this relationship has often made RSTs dependant on their own local authorities (Informants 7 and 8), because these authorities funding has fluctuated annually: “Many RSTs have had their funds reduced [in 2012], but their services have been expected to stay at the same level” (Informant 8). Local authorities have also often controlled the direction of their RST's programmes and services, and consequently, “many RSTs have had to move in a direction they had not planned or envisaged because their funders priorities have changed” (Informant 8).

7.2 The Green Prescription Programme

7.2.1 Overview

The GRx programme has been popular among older people who find they have become more sedentary after retirement or experience health conditions which could be improved by being regularly physically active (Informants 4 and 7). Between July 2011 and July 2012, there were 978 people referred to the GRx programme who were aged 65 and older (Research NZ, 2012). In July 2012, the GRx programmes mandate was shifted from the MOH, to every District Health Board throughout New Zealand. The majority of GRx providers are currently RSTs who now report to their local District Health Boards, who then report to the MOH (Informant 1). Consequently, District Health Boards will now determine the future direction of their respective districts GRx programmes, enabling these schemes to become more tailored to fulfil the needs of their local population (Informant 7). The GRx programme is the only physical activity scheme which is directly funded by the MOH, as the MOH is a policy body, not a programme provider (Informant 1).
7.2.2 Case Study: Sport Otago

In the research, a representative from Sport Otago was interviewed for the case study locality of Dunedin City. Sport Otago explained that they had not introduced any speciality programmes for older adults:

“The GRx programme would be the main area which has focus on the older adult population. The rest of [Sport Otago] is focused on increasing the development and uptake of sport. [Which] tends to be focused on school aged children” (Informant 7).

The 2012 Sport Otago GRx survey showed that the programme was very popular amongst older adults in the Otago region. The results showed that 15% of their clients were aged between 65 and 69 years, 2% were aged between 70 and 74 years and 4% were aged between 75 and 79 years. Sport Otago also found that 17% of service users were retired (Informant 7).

Older adult clients have responded positively to this programme, because they have been introduced to a number of low-cost sport and recreational opportunities. Walking, swimming and aqua jogging have been the most popular, generally because these have been highly subsidised (Informant 7). The Dunedin CC has supported the GRx programme, by providing free pool entry for the first twelve swims for clients referred to this programme (Dunedin CC: Representative 1). This has “allowed people to trial the pool without having to stick any money towards it”. Senior citizens also receive a subsidised admission fee to pools owned by the Dunedin CC. Aqua jogging has been especially popular amongst older clients, because it is beneficial for mobility and joint problems (Informant 7).

The GRx programme have run a number of ‘KickStart’ programme groups which are between four and seven weeks in duration and cost $2 a session. These groups have been hosted in different parts of Dunedin to “reach some of those harder to reach people, who may not have access to transport”.

Chapter 7: Key Stakeholders
The programmes which have been particularly successful amongst older clients have included; teaching people how to do light weight exercises at home, resistance training, coaching people how to use gym equipment and Nordic walking. These programmes have been tailored specifically to make them “appropriate for older adults, people who are getting back into physical activity and people who are less mobile” (Informant 7).

Sport Otago explained that some older people have required greater assistance, direction and support when taking part in physical activity. Therefore, Sport Otago has frequently invited Age Concern to deliver group fitness sessions for older adults within the GRx programme. Sport Otago has then provided interested clients with relevant information about how to attend their closest exercise classes. They have also taken older clients to attend Age Concern exercise classes in their local community (Informant 7). In the research, an Older Adult explained how a representative from the GRx programme came to their Age Concern exercise class to promote the GRx programme: “He joined in the class and everybody loved it!” (South Dunedin, 2).

7.2.3 Older Adults’ Experiences

As highlighted above, the GRx programme is the main area where Sport NZ focuses on the older adult population. However, in the research only 42% of the Older Adults interviewed had heard about this programme. This evidence is summarised by an Older Adult: “I have heard about [the GRx programme], but there doesn’t seem to be much publicity around it” (Caversham, 5). Another Older Adult reiterated: “I don’t think many people are aware to be honest, unless a doctor or somebody offers it to them... I always thought it sounded quite interesting”. An Older Adult shared their positive experience as a recipient of the GRx programme:

“I didn’t know anything about it, until I was advised by the dietician to go on the GRx programme. They put me on to the pool, and I have been going to aqua aerobics twice a week ever since. They told me the more I do the better” (Brockville, 10).
This highlights that there should be greater publicity informing older adults about the advantages of this programme and potentially utilised more by health professionals.

7.2.4  Māori Representation

The Sport Otago GRx programme has provided no specific services or programmes to encourage Māori to be physically active (Informant 7). However, the GRx programmes in Sport Northland and Sport Waikato have provided targeted funding for Māori. The Sport Waikato programme has carried out marae-based projects which are more whānau-orientated. In 2012, Sport Waikato had 18%, and Sport Northland had 21%, of their GRx programmes referrals for older adults. The research also showed that Sport Waikato had 36%, and Sport Northland had 45%, of their older adult clients were of Māori decent. This was against the national average of 25% of older adult clients in other RSTs throughout New Zealand (Sport Northland, 2012; Sport Waikato, 2012). Sport Waikato (2012) highlighted how important it is for RSTs to take the tangata whenua into consideration when implementing programmes:

"Working with our Māori clients continually presents great successes and also constant challenges. With high client numbers, and many of them with high needs, it is a challenge to continually deliver a quality service." (Sport Waikato, 2012:2).
7.3 Conclusion

This chapter has discussed the ambiguity that exists about which organisation is responsible for encouraging older adults to live physically active lifestyles. In 2009, Sport New Zealand changed its mandate from ‘physical activity’ to focus more on ‘sport and recreation’, and consequently, being physically active has been marketed to a smaller audience. It was argued that this change in mandate has meant that there is no organisation to promote ‘active ageing’ amongst older adults.

The thesis argued that Sport New Zealand has given little consideration to older adults in their plans and strategies, and that the Green Prescription programme is the main area where Sport New Zealand focuses on the older adult population. It was explained that Regional Sports Trusts have been instructed by Sport New Zealand to provide specific strategies and programmes for communities in relation to their demographics. Regional Sports Trusts, which have provided strategies and programmes to encourage physical activity, were analysed. Finally, the Green Prescription programme was examined, including; an overview, a case study example of Sport Otago, older adults’ experiences in this programme and the representation of the tangata whenua. The next chapter will explain how the ageing population in New Zealand is being planned for at the local level, in relation to providing opportunities for physical activity.
The Role of Local Government

As the previous chapter identified, ambiguity exists about which organisation is responsible for encouraging older adults to be active. The primary purpose of this chapter is to discuss how the ageing population in New Zealand is being planned for at the local level, in relation to providing opportunities for physical activity. It examines results drawn from interviews with 14 planning professionals within local councils in New Zealand. The perceptions of employees working in the sport and health industry will also be included. This chapter will work towards addressing Research Questions Three and Five: To what extent does the current planning system in New Zealand enable older adults to participate in physical activity; and, to establish how older Māori adults have been encouraged to be physically active in New Zealand, respectively.

Difficulty has been experienced providing direct examples of how local authorities have provided older adults in their communities opportunities to be physically active. This is because every local council has planned for their ageing population in a different way. Therefore, this chapter will draw on examples of how a selection of local authorities have facilitated for, and encouraged, their older adults to live physically active lifestyles.

Facilitating public input, has provided older adults with a voice so they can be represented at the council level, leading to more inclusive decision making and a greater likelihood of successfully implementing strategies (WHO, 2008). Numerous local authorities explained that they have organised consultation methods with elderly people through older adult forums and surveys. Local council representatives also provided examples of how they have promoted opportunities through publications and campaigns.
There is also growing awareness among local councils of the importance of maintaining and enhancing; green spaces, playgrounds, aquatic facilities and community centres. It will be argued that these places must be appropriately adapted, to enable adults to utilise them to stay active in their later years. Local authorities also explained that they have encouraged their older adults to stay physically active by providing them with the opportunity to participate in; voluntary conservation work, activities, programmes, festivals and events. These initiatives have all had an element of physical activity, which has given older adults subsidised and rewarding ways to stay active in their later years.

This chapter will also explain how different local authorities have contracted Māori health organisations to provide sport and recreational opportunities for the tangata whenua in their communities. It is imperative to improve accessibility to amenities and infrastructure (MOH, 2003; Grant and Mclean, 2011). Examples of local authorities will be analysed which have improved older adults' access to public spaces, active transport and public transport.

8.1 Local Government Approaches

An academic from Waikato University explained that difficulty has been experienced providing direct examples of how councils have given older adults in their communities, opportunities to be physically active. They exemplified every local authority has planned for their ageing population in a different way. However, some councils have been more proactive than others:

“[Some councils] have put an emphasis on housing for older people, this impacts quality of life rather than physical activity. While other councils have reduced fees for their public amenities, like swimming pools, or might have older people’s forums which provide voice so they can be represented in a council. Many councils have provided some form of transport, or supported other agencies like Age Concern...” (Informant 6).
Informant 6 also noted that many councils have used indirect initiatives to encourage physical activity:

“Many councils have not directly promoted physical activity. However, they may have worked strongly with their positive ageing strategy which have examined environments and places, and how these could enhance or promote positive ageing... Such as making a park or walkway more accessible or user-friendly design principles” (Informant 6).

Council representatives from Dunedin, Palmerston North, New Plymouth and Waitaki expressed that their roles were predominantly to fund existing clubs, groups, RSTs and health organisations within their areas, which provided physical activity opportunities. This is identified by the following council representatives:

“Sometimes it is about realising that there are already really good initiatives out there... It is not about replicating [physical activity programmes], it is about identifying whether there are any shortfalls” (Dunedin CC: Representative 1).

“Our role is not providing programmes, we support organisations. Our roles are too broad to do a hands-on function” (Dunedin CC: Representative 2).

“We don’t believe it is our responsibility to run all these active community programmes. In fact, there are lots of community organisations out there which are doing exactly that and get funded. So the Council’s role is to enhance these and increase the collaboration or effectiveness of these” (New Plymouth DC).
8.2 Public Input

8.2.1 Consultation and Forums

The RMA does not provide a definition for consultation. However, section 36 has stated consultation is not mandatory, but it is good practice for it to be carried out (Quality Planning, 2012b). The advantages of undertaking community consultation include; a greater understanding about the extent of the communities problems, a feeling of ownership, inclusive decision making and a higher probability of successfully implementing a strategy (WHO, 2008).

Urban areas must provide a positive environment for older people and people with disabilities, by inclusively involving them in designing and developing places to enhance their accessibility and utilisation. Community engagement must strive to encompass those whose needs might otherwise be ignored, such as older adults (Ministry of Transport, 2009).

Older adult forums have been a method local authorities have used to consult with the aging population. Local authorities are required to undertake consultative processes with their communities before major decisions are made. Council representatives from; Dunedin, Hastings, New Plymouth, Rotorua, Upper Hutt and Waitaki described that they supervised forums which represented the interests of older people. These forums generally met every four to six weeks, and were operated by local council employees and chaired by a councillor. Forum groups consisted of individuals who represented older people, such as; government organisations, RSTs, local providers, community groups, cultural health services, interested individuals and senior citizens.
These forums were referred to as a ‘mechanism for communication’ or a ‘reference group’ which identified key problems, and educated the council and the wider public about the issues older adults faced. These meetings also provided a regular networking opportunity to raise awareness of local services for older adults, meaning services been provided in areas where there was originally a deficiency. Forums have given feedback on council proposals, contributing to, and supporting them to fulfil their respective positive ageing strategy’s objectives.

However, a council representative identified that these key issues have not always been given the weight that they deserve. Another informant acknowledged that these forums have not advocated the need for older adults to be physically active. This could be secondary to the lack of understanding of the issues facing the rapidly ageing population.

8.2.2 Surveys

Surveys are another way councils have consulted with the older adults in their communities. The Upper Hutt CC carried out health surveys in 2008 and 2012, which encompassed questions relating to individuals’ physical activity, such as; their mode of transport, the importance of physical activity to them, and if they required help becoming physically active. This council ensured that the survey was distributed to places where older people were likely to visit, including; medical practices, podiatrists and optometrists.

The Upper Hutt CC has also undertaken an extensive bi-annual survey to solely determine the level of physical activity among individuals in their community. This survey is broken-down into different age groups, including a category for those aged 65 and older. It has identified positive ageing issues and provided an overview of the wellbeing of older people in the Upper Hutt. Survey results have directed council work for senior citizens and produced relevant information for individuals and organisations representing the interests of older adults (Upper Hutt CC: Representatives 1 and 2).
Chapter 8: The Role of Local Government

8.3 Promoting Opportunities

8.3.1 Publications

In the research, over half of the Older Adults interviewed believed that they were insufficiently informed about the opportunities available within their communities, to be physically active. Council representatives from Upper Hutt, Rotorua and Christchurch initiated publications to inform older adults living within their communities about opportunities to be active. The 60 Activities for Over 60s booklet was published in 2011 by the Upper Hutt CC to inform older people about the clubs, sport and recreational opportunities available within the local community. The booklet is available online, and by June 2012 over 1000 copies had been distributed through; council facilities, community organisations, events and personal requests. It has advised older adults to contact the organiser of the club if they did not have access to transport, to improve accessibility (Upper Hutt CC, Representatives 1 and 2).

The H.I.P brochure has aimed to inspire adults aged 50 and older to engage in ‘Hobbies, Interests and Passions’ by listing all the sport and recreational opportunities within the Rotorua district (Rotorua DC, Representative 1). This brochure has assisted baby boomers to undertake a ‘proactive approach’ to ageing, by encouraging them to become regularly active before they retire (Rotorua DC, 2012). It has received a significant amount of positive feedback from people who have participated in new activities or tried something they did not know existed. This directory is updated and released every six months, and includes 50% new content with each issue. Between November 2011 and May 2012 all 3,000 copies were distributed before this six month period ended (Rotorua DC, Representatives 1 and 2).
8.3.2 Campaigns

Campaigns have informed people of the benefits of being physically active, and the opportunities that exist within their communities (Allen, 2008). The MoveMe Campaign is a promotional initiative which is funded by the Dunedin CC to encourage people aged 25 and older who are not regularly active, but have the intention of becoming so (MoveMe, 2012). MoveMe was established in 2011 because:

“*There are a lot of people who talk about becoming more active, but for a whole range of reasons they just cannot make that jump over. MoveMe has given these people information, motivation and inspiration to actually make that move*” (Informant 7).

Sport Otago explained that the GRx programme and the MoveMe campaign overlap, however:

“The GRx programme is the kickstart programme to get sedentary people active. MoveMe is the next step... getting people up to the [MOH’s] healthy lifestyle recommendations” (Informant 7).

MoveMe has marketed itself inclusively by using realistic role models for older people to aspire to be. For example, the campaign has used:

“*An amazing woman in her 80’s who swims every day, jumping out of the water on one of the promotional posters... Not someone young, slim and trim and trying to say this is you. She is just your everyday older adult getting out and doing stuff*” (Informant 8).

The majority of MoveMe initiatives have not been directed at older adults, but have had a good representation of older people participating in them (Informant 8). This campaign has directly appealed to older adults by working with organisations representing older people, like Age Concern, to implement their programmes (Dunedin CC: Representative 2). MoveMe also initiated a Mother’s
Day walk in 2012 which was very popular amongst older adults. Informant 8 explained: “We had really nice scenarios like the grandmother, mother and the grandchild all doing that Mother’s Day walk together”.

MoveMe initiated a ‘Have a Go Day’ in 2011, which informed people about local clubs and activities in their communities (Informants 7 and 8). In 2012, there were three ‘Have a Go Days’ hosted in Brockville, North East Valley and South Dunedin. These places have a higher proportion of older adults and existing community projects (Dunedin CC, Representative 1). In the future, both interest-based and sector-specific ‘Have a Go Days’ are planned, which will provide specific opportunities and programmes for older adults and Māori people (Informant 8).

8.4 Recreational Facilities and Infrastructure

8.4.1 Green Spaces and Playgrounds

Local councils are responsible for providing and maintaining tracks, green spaces and playgrounds for their populations, however, many have experienced difficulty gauging their usage (Dunedin CC: Representative 1; New Plymouth DC). This is reinforced by the New Plymouth DC:

“There is an absence of knowledge about elderly people’s use of walkways and parks. Improved knowledge can deliver valuable intelligence to, and impact upon, our community health sector as well as supporting Council delivery of services” (Council 8).

In the research, 75% of Older Adults expressed that they were satisfied with the range of parks and green spaces which were within walking distance from their homes. This is reinforced by an Older Adult: “There is so much out there, you don’t have to walk very far...” (Central Dunedin, 8). However, this access has often been dependent on the extent of individuals’ mobility. This is exemplified:
“When you can’t walk very far, parks are a long way away. So you don’t bother with them” (South Dunedin, 2). This highlights how important it is for these places to be regularly maintained and cater for the needs of the aging population.

The Dunedin CC discussed that they have ensured that park seats and benches are high enough for older adults to sitdown and standup from. They have also installed blocks down the sides of paths to allow visually impaired people to distinguish when they are walking from a smooth path to a rougher surface. The New Plymouth DC explained that they have encouraged senior citizens to participate in the community by giving them free mobility scooter usage on some of their parks and walkways. Councils have improved street lighting to make people feel safer moving between places after daylight. They have also maintained footpaths to make them accessible for people using mobility scooters.

Playgrounds must be designed to be accessible throughout people’s ‘life-spectrum’ (Dunedin CC: Representative 1; Informant 12). The Dunedin CC explained that they have worked collectively with community organisations to install low impact playground fitness equipment which is easy to maneuver and has clear signage which explains how to operate the play equipment.

8.4.2 Aquatic and Community Centres

There is growing awareness of the importance of having recreational facilities, such as swimming pools, for older adults so they can stay active in their later years (Thames-Coromandel DC). In the research, 33% of Older Adults indicated that they went swimming on a weekly basis. Local authorities from; Auckland, Palmerston North, New Plymouth, Rotorua, Thames-Coromandel, Upper Hutt and Waitaki, have provided senior citizens a discounted admission into their local pools. These same councils have provided subsidised low impact water-based exercise classes, such as; aqua yoga, hydro-aerobics and aqua jogging, which have been directly targeted at older people. For example, the Thames-Coromandel DC has supported low impact aqua-aerobics classes twice a week for older adults at the Thames Centennial Pool.
The Upper Hutt CC has organised a ‘women only’ swimming session every Sunday evening at their local swimming pool. This has encouraged many older women to start swimming who would have otherwise felt uncomfortable or unable to swim in a public pool. This has provided “somewhere [older women] can go, where they can feel comfortable and safe to be active” (Upper Hutt CC: Representative 2).

Local authorities from Auckland, Rotorua and Waitaki, explained that they have financially supported community centres. These have run a range of subsidised activities with an element of physical activity for older people. For example, the Rotorua DC has an annual contract with Parksyde, an older person’s community centre. They offer a wide range of subsidised low-impact sporting activities for older adults, including Zumba, Tai Chi and line dancing. The Thames-Coromandel DC and Auckland Council have provided non-profit older adult groups, discounted rates for using Council owned halls and civic centres.

8.5 Activities and Events

8.5.1 Volunteering

Older people will often be more inclined to participate in physical activity if they feel a sense of usefulness for their contribution (OPEN Forum, July 2012). This notion is supported by the Greater Wellington RC. They explained older adults volunteer because “they enjoy the comradery and socialisation from working with other like-minded people, while they are contributing to something positive, being active and seeing what results from it”. Older adults play an important role with their voluntary work in the community. In fact, 15% of people aged 65 and older participate in voluntary work through an organisation, group or marae (Auckland Council, 2011). A representative from the Greater Wellington RC explained that a large proportion of their volunteers for the Cycle Skills Education Programme were retired older adults. The Auckland Council expanded: “Retired people have valuable skills and potentially more time and flexibility to volunteer”.
Chapter 8: The Role of Local Government

Many older people have stayed physically active by doing voluntary conservation work with their local authority. In the research, representatives from the Greater Wellington RC and Dunedin CC demonstrated that they have worked alongside older adults on conservation and restoration programmes which have planted trees in their respective areas. An employee from the Wellington RC stated: “These projects have been predominantly made up of active and committed older adult volunteers, and has involved a great deal of physical activity for these people”. They explained that these older people have played a crucial role: “We couldn’t do the work we do without those volunteers, and therefore, it is really important that we look after them” (Wellington RC).

8.5.2 Classes and Programmes

In the research, it was evident that local councils oversaw a range of activities and programmes to encourage their older adults to be regularly active. The Auckland Council hosted highly subsidised senior classes that were timetabled specifically at off-peak times for senior citizens. These cater for a wide range of fitness abilities, and have morning tea afterwards. Classes include; leisure walkers, bowls, table tennis and Tai Chi and an annual Village Olympics event. The Auckland Council has also employed community advisors and community co-ordinators, which support local groups, initiatives and events, that encourage older adults to be physically active.

The Dunedin CC described that they have funded a KeenAgers programme which has been specifically targeted at older adults, by providing low impact and accessible physical activity opportunities. The Upper Hutt CC has hosted several self-defence workshops for older people. This has simultaneously encouraged them to be physically active and given them more confidence in public spaces. The Rotorua DC has given older people the opportunity to enter events, such as the Rotorua Marathon at a subsidised rate. This has encouraged people who prefer to train alone, but want to compete in a social event, to stay active in their later years.
The Growing Old, Living Dangerously programme was a multi-level initiative run by the Upper Hutt CC, to encourage people aged 50 and older to become physically active. This programme strived to “break down ageist perceptions about what older adults can and cannot do”. The Bronze and Silver Levels socially marketed the advantages of being active. This included workshops which informed older adults about their local sport and recreational opportunities relevant to them. The Gold Level employed specialists to run outdoor recreational activities specifically for elderly people. Activities included canoeing, rock climbing and archery. This programme was particularly successful for sedentary older adults, and those who would have otherwise been too afraid to participate in these activities alone (Upper Hutt CC: Representative 2).

8.5.3 Festivals and Events

Local councils from; Auckland, Dunedin, Hastings, New Plymouth and Upper Hutt, explained that they have supported a number of festivals which have recognised the importance of older people in society. These events have often hosted activities which have encouraged older people to be active. For example, Dunedin CC has annually supported ‘Age on the Go’ which is a series of events over a week in September to encourage older adults to be more active. Likewise, the Upper Hutt CC has annually organised a senior citizens month in October, which has hosted a number of activities including; group walks, aquatic activities and Tai Chi classes. The New Plymouth DC has run a ‘relationships competition’, where younger people have had to talk about a significant relationship they have with an older person. This has encouraged people to understand how important older people are in society.
Chapter 8: The Role of Local Government

8.6 Māori Health Providers

8.6.1 Government Contracts

In the research, council representatives from Rotorua, Auckland, Upper Hutt, New Plymouth and Wellington, explained that they have worked with Māori health organisations to provide sport and recreational opportunities for the tangata whenua in their communities. The Rotorua DC has an annual contract with a local kaupapa Māori organisation called Te Papa Takaro O Te Arawa, which has delivered programmes specifically for koroua and kuia. In 2012, this organisation hosted the Te Arawa Games, which encouraged whānau to unite and participate in a wide variety of sport and water-based activities.

The Auckland Council has financially supported Te Puna Haora, which has specifically operated programmes to encourage older Māori to become more physically active. Likewise, the Upper Hutt CC has funded their local Marae to run exercise and activity classes for people aged 50 years and older. The New Plymouth DC has contracted Te Hauora Pou Heretaunga to encourage Māori to become more active through a kaupapa Māori approach. This organisation has run Kaumātua Olympics for older adults in different regions to compete against each other in traditional Māori games. Māori health providers in Wellington have worked collaboratively with the Greater Wellington RC in Māori health promotional campaigns. This has ensured that these messages are culturally sensitive and effective for the tangata whenua.

8.6.2 In the Community

In the research a representative from Tumai Ora Māori health services was interviewed, who connects whānau with existing services in their community, from Waitati to Oamaru. This service has been predominantly used by Māori, however, it is available to anyone. The representative stated: “We don’t provide any services, but we are the glue which brings them together”. Tumai Ora has “empowered Māori to do things for themselves. [But we let them know] we are there to help and guide them” (Informant 11).
This organisation has provided a number of programmes which have been popular among older Māori, such as the He ko te mate walking group which was initiated because: “Lots of older people, particularly in Karitane weren’t getting out and being physically active, because they had debilitative issues”. The group is inclusive for people with disabilities who have been encouraged to: “come along and carry their walking sticks, whatever the pace” (Informant 11). Tumai Ora has also supported mirimiri, which has been popular among older people who have weak joints. This organisation also noted: “Our older Māori people really enjoy being in the water. However, accessibility and money is a huge issue (Informant 11).

In the research, a representative from Te Hou Ora was interviewed. This Māori health service has used ‘exercise therapy’ to work with the majority of their troubled clients from low socio-economic families. They stated: “This is holistic approach uses healthy living to bring down the cost of living” (Informant 12). The majority of their older adult clientele have come to exercise in Te Hou Ora because they have been obese, lack self-confidence and do not want to be seen exercising in public. This organisation has aimed to move their clients onto the gym or sporting activities. The representative explained that “[Te Hou Ora] is primarily run by volunteers and that’s probably why we carry on. If I couldn’t make it sustainable it would not be worth carrying on”.

Tumai Ora and Te Hou Ora delivered Māori health services through the Te Whare Tapa Wha Model. This model is inclusive and holistic, and entrenched with kaupapa Māori (Figure 8)
Figure 8: Diagram of the Te Whare Tapa Wha Model (Careers NZ, 2012)

Figure 8 has highlighted that the four cornerstones of Māori health are te taha whānau (family health), te taha tinana (physical health), te taha hinengaro (mental health) and te taha wairua (spiritual health) (Informants 11 and 12). Informant 11 explained: “It involves basic morals and ethics which apply to everyone. Therefore, it can be used broadly to any culture”. Māori health providers grew up with this model: “It was intrinsic in my upbringing. Many Māori, including myself, grew up with this model. But not knowing this was a model” (Informant 11).

Informant 12 further supported this: “We were bought up in the traditional way and we didn’t actually have names for Māori health models. Te Whare Tapa Wha seems to be the main one. I find it hard because we never gave it a name” (Informant 12). This highlights, that it is important for Māori health providers to apply this holistic model to their older adult clientele.
8.7 Improving Accessibility

8.7.1 Public Spaces

It is imperative to improve accessibility to amenities and infrastructure to enable older people to participate actively within their communities (MOH, 2003; Grant and Mclean, 2011). Local authorities from Wellington, Palmerston North and Rotorua, explained that they have undertaken schemes to increase older adults' accessibility to public spaces and infrastructure. This has both directly and indirectly encouraged their elderly population to become more physically active. Older people often face the same barriers people which disabilities experience (New Plymouth DC; Upper Hutt CC: Representative 1). A representative from the New Plymouth DC further supported this notion: “We make public infrastructure and services accessible for people with disabilities. We figure if we get it right for them, these things will also be accessible for older people”.

Local council representatives from the Upper Hutt and Dunedin explained that urban density must be encouraged around main centres, to allow amenities and facilities to be more accessible as people age in their communities. They have examined how to make their urban areas more walkable, accessible and safe, by taking the location of older adults' homes into consideration, in relation to the development of new services and amenities. The Rotorua DC has a representative that attends the monthly Access Disability Group meetings within the district. This has enabled this council to improve older adults' accessibility to public places by understanding the accessibility issues they face.

Improving older adults' safety perceptions will also encourage them to be more physically active (Allen, 2008). The Greater Wellington RC has collaborated with other councils in Wellington to produce a senior road safety calendar. This has provided older people with important safety information about cycling and walking. Likewise, the Auckland Council, in conjunction with older people's groups, has organised an educational project to increase older adults' safety perceptions in public spaces. These initiatives have both directly and indirectly improved older adults' accessibility to be physically active.
8.7.2 Active and Public Transport

Limited access to transport has been a key barrier which has prevented older adults from participating in physical activity (Daley and Spinks, 2000). The Greater Wellington RC discussed how important it is for local councils to incorporate more activity into the lives of drivers as they age: “Walking and cycling need to be encouraged well before people reach a vulnerable old age, and face losing their licence”. The Wellington RC has delivered promotional initiatives to the working population about the benefits of active transport. They anticipate that the early uptake of these behaviours will increase their prevalence in people’s later years.

The Upper Hutt CC hosts an annual public transport open day, where buses and trains are stationed and available for people to use and ask transport providers’ questions. Representatives from the Wellington Senior Actions Forum, the Hutt Valley Disability Advisory Group, the Hutt Valley Disabled Resources Trust and the RNZFB have all attended this event. This has also given the council an opportunity to provide feedback to public transport providers. The Greater Wellington RC has strived to improve pedestrian accessibility to, and the connectivity of, public transport hubs. This council has worked with bus companies and the New Zealand Transport Authority, to ensure all their new buses fulfil the New Zealand Transport Authority vehicle quality standards. These guidelines have encouraged public transport to become more accessible for people with disabilities.

In 2008, in partnership with RoadSafe Hawkes Bay, the Hastings DC developed and piloted the Bus Utilisation Programme for older people. This involved two, four week programmes of education. Over 50% of new users of public transport, continued to use it, three months following these education programmes. The New Plymouth DC has supported free parking for those aged 65 and older before 11am in the Central Business District. Likewise, the Dunedin CC has provided a free parking permit for those aged 75 and older. These council initiatives have encouraged older adults to take part more actively in society.
The SuperGold card has encouraged older adults to engage and participate in the community (Informant 3). This is reinforced by a representative from the Greater Wellington RC: “The SuperGold card really removes the transport barrier. Allowing [older adults] to have access to the community in a way that they wouldn’t be able to if they had to pay”. They went on to explain:

“Having free access to public transport by nature has encouraged people to walk to public transport as a general rule... Therefore, we have a policy that bus stops are within 400m of every dwelling when there is a service going through...”.

A representative from the MOH explained that older adults have been “very appreciative of the amenity and have made extensive use of it”. The SuperGold card had also made a positive difference to every Older Adult interviewed that used public transport. One stated: “This free bus has been the best thing for people because lots of people didn’t go out when they had to pay a bus fare” (Musselburgh, 7). The SuperGold card had encouraged older adults to be physically active, and 80% stated that they used this card to access free public transport to travel to a physical activity venue. It was also found that 50% of the Older Adults used this card for public transport, so they did not have to worry about finding or paying for parking.

However, the SuperGold card has only given free use of public transport during off-peak times which varies between different parts of New Zealand. A Representative from Otago Grey Power felt: “There is an anomaly there because [in Dunedin] use hours are between 9am and 3pm and after 6.30pm. Not many people use [the bus] after then, because lots of the elderly just doesn’t go out at night” (Informant 9). In addition, Informant 3 argued that the great majority of senior citizens live in urban areas, however, older adults living in rural areas who are not serviced by public transport have not been able to utilise this service. Informant 1 also noted that: “Lots of older people don’t think it should be free. They believe it should be a gold coin donation”. In the research, every Older Adult interviewed owned a SuperGold card. However, no-one interviewed had used this card to become directly involved in a sport or recreational activity.
Chapter 8: The Role of Local Government

8.8 Conclusion

This chapter analysed how the ageing population in New Zealand is being planned for at the local level, in relation to providing opportunities for physical activity. It has drawn on examples from a selection of 14 council representatives, from 11 different councils, throughout New Zealand. They explained how they have facilitated for, and encouraged, their older adults to live physically active lifestyles. The chapter highlighted that every local council had achieved this in different ways.

Some local authorities organised older adult forums and surveys to enable older adults’ views and opinions to be represented in key decision making processes, while others have informed them about opportunities to be physically active through publications and campaigns. Numerous council representatives explained how they have adapted and maintained; green spaces, playgrounds, aquatic facilities and community centres within their areas to make them accessible for people in their later years.

This chapter also discussed local councils which have provided older people with opportunities to be physically active. These activities included; voluntary conservation work, programmes, festivals and events. Other local authorities have contracted Māori health organisations to provide sport and recreational opportunities for the tangata whenua in their communities. Numerous local councils explained that they have improved older adults’ accessibility to public spaces, active transport and public transport.

However, the diverse older adult population will mean local councils will have to reconsider their plans and policies over a broader spectrum in the future (Boston and Davey, 2006). Therefore, the final chapter will provide recommendations how the ageing population in New Zealand can be planned for at the local level, in relation to providing future opportunities to be physically active.
This chapter presents recommendations for how the ageing population of New Zealand can be planned for at the local level, in relation to providing future opportunities to be physically active. The recommendations are based upon analysis of data collected primarily through attending an older adults forum in Dunedin, and interviews with; older adults residing in Dunedin, local authority representatives and employees working in the sport and health industry. This chapter will work towards addressing Research Questions Four and Five: To establish how older Māori adults have been encouraged to be physically active in New Zealand; How can the ageing population in New Zealand be planned for at the local level, in relation to providing future opportunities to be physically active, respectively.

Overall, the research has formulated 13 recommendations that will be of value to; central government, the sport and health industry and local government, with specific focus to Dunedin City. This chapter is structured according to the these recommendations, and who they will be of most value to.
Chapter 9: The Future

9.1 Recommendations for Central Government

This first section will provide recommendations about how the central government can best encourage older adults to be physically active. Specific recommendations have derived through interviews employees in this field and local authorities throughout New Zealand.

9.1.1 A greater recognition by central government of the rapidly ageing population within legislation, policies and guidelines

It is recommended that there be a greater understanding of, and planning for, the rapidly ageing population. Health promotion strategies should be coherent with, and consider, the economic, political and cultural context that they are implemented in (Chodzko-Zajko, 2009). Likewise, professionals delivering physical activity opportunities should consider the demographics of their communities (WHO, 2007). If they have an increasing proportion of older adults in their area, it is recommended that they fulfil the needs of these people through the services they provide.

Key legislation which encourages older adults to live healthy, active lifestyles should be kept up to date, and based on best current evidence and research. For example; the Positive Ageing Strategy 2001, the Health of Older People Strategy 2002 and the He Korowai Oranga: Māori Health Strategy 2002, are in need of review due to their age and the withdrawal of frontline services. As identified, the Healthy Eating, Healthy Action Strategic Framework 2004-2010 was successful encouraging sedentary older adults to be active. Therefore, it can be suggested that an equivalent strategy, and the funding to go with it, should be provided. Legislation should reconsider the ageing population, for example, the Positive Ageing Strategy 2001 should provide explicit guidance to encourage older adults to be physically active.
A representative from the NZRA highlighted that the ageing population should be “planned and prepared for”. This will mitigate potential adverse effects of unplanned growth (PHAC, 2010). The importance of this is reinforced by the following quotations by professionals:

“If we don’t do more in this area, before we know it, we will be in the situation where we have a whole population of older adults” (Informant 8).

“It is about being aware there is going to be a spike in the ageing population in the future” (Dunedin CC: Representative 1).

“The structural ageing of the population is something everyone is getting their head round” (Hastings DC).

Therefore, government agencies should provide clearer guidance at the national level and this will give clearer direction at the local level. For example, the MOH’s Health Promotion Agency was established to promote healthy lifestyles in 2012. Even though this organisation has a wide range of responsibilities, encouraging elderly people to be active should be prioritised. Likewise, older adults should be sufficiently consulted with when determining Government priorities, as they are a rapidly growing population sector within New Zealand.

9.1.2 More inclusive consultation methods at all levels

In the past, older adults’ voices have often been missing from policy making decisions about health, as they have lacked the ability or means to contribute to planning decisions. Due to low participation in physical activity, older adults have not been as involved in the planning process for this as they have in other planning areas (Allen, 2008; Grant 2008b). The research has highlighted that in the future there must be greater attention given to working and consulting with elderly people, to identify the key barriers to, and opportunities for, participation in physical activity.
Informant 8 suggested that successful community consultation should involve: “Going to the places where older people are. For example, when ‘meals on wheels’ are being dropped off, spending a bit longer talking with older adults about what they want”. A council representative argued that local authorities should also be obligated to reach their citizens with limited mobility and accessibility: “It’s not good enough to simply write to everyone in the phone book. Some seniors... don’t have access to a landline or don’t get listed in the phone book...” (Dunedin CC: Representative 2).

It is recommended that there are further policies, schemes and plans implemented which encourage older people to participate in meetings, events and decisions, in issues that impact their lives. There should be services to encourage this participation, such as; reserved seats for older adults, additional assistance for people with disabilities, support for people with hearing impairments and offering transportation. Older adults should be valued and recognised for their participation. A council representative expressed: “The comments elderly people give forums must be given greater weight because they are going to be the dominant population group in the future” (Hastings DC).

The OPEN Forum (July 2012) argued that there has been a poor uptake of sport and recreational activities by older Māori adults. Therefore, greater Māori engagement and community participation is needed, to ensure that planning decisions are cohesive and supportive (PHAC, 2010). This will also ensure that appropriate services are accessible to fulfil their social and cultural needs (MOH, 2003).

There a number of ways to engage with the tangata whenua, including; representation on local authority seats, iwi groups working collectively with local authority environment groups, and establishing Māori advisory organisations and Māori urban authorities (PHAC, 2010). In addition to encouraging more inclusive consultation methods, it is recommended that physical activity is promoted through a ‘lifestyle’ approach.
9.1.3 Moving from a ‘biomedical’ to a ‘lifestyle’ approach in policy at central government level

An academic from Waikato University explained that literature about physical activity has often been bio-medical and reductionist. This has generally been about the benefits of physical activity, and/or the negative implications of not exercising. They indicated that future research examining elderly peoples exercise patterns should move from quantitative research to qualitative studies:

“There is a much bigger story about physical activity than this just being physical, particularly with older people. We want to move away from just solely having quantitative research. Instead, we must examine why or why not people engage and what physical activity means to them” (Informant 6).

It was noted that physical activity initiatives are often measured on their economic success. In many cases people do not want to invest time and money into physical activity schemes if they do not instantly decrease health costs. Many physical activity programmes have long-term success, however, cannot be measured in economic terms (McCann, 2006).

Informant 6 argued that elderly have often been ‘problematized’, and in many cases have only been encouraged to be active to improve their health and minimise their medical expenses. Older adults will not participate in physical activity solely because experts tell them to, or because they will live a ‘better’ and ‘longer’ life (Grant et al., 2007). Informant 6 stated: “Physical activity isn’t something you can do to others. It is something you choose to do for yourself”. They expanded:

“Over the past 25 years there has been a truckload of information why physical activity is good for you. There are truckloads of information why the interventions are successful. But when these interventions finish, most people go back to the status quo” (Informant 6).
For older adults to be regularly active, participation must have intrinsic value and improve their livelihoods (Whitehead, 2010; Grant and Mclean, 2011). This is reinforced by an academic from Waikato University: “Older people are not going to just start doing stuff if they feel good now. Most people define themselves as being healthy, even if they have an ailment or two” (Informant 6).

Therefore, methods used to encourage older adults should change to provide more acceptable options, in addition to the prescriptive approach. This will move from a ‘health-based approach’ to a more open-mined ‘lifestyle approach’ (Grant and Mclean, 2011). Informant 6 explained that it is important to encourage physical activity as a way of life:

“Physical activity cannot be something separate to living. It needs to be part of someone’s embodied experience…. It must be seen as a way of life and doing things… For personal interests, excitement and self-fulfilling purposes, and the outcome of that is that they will get health benefits” (Informant 6).

Exercising for a lifestyle approach is reinforced by a representative from Sport Otago. They indicated that older adults have participated in physical activity for what they can do with their physical fitness, instead of what is happening internally:

“Many elderly people keep active to enable them to have more energy to undertake; household chores, gardening, playing with their grandchildren and supporting their families. This has consequently allowed them to stay in their own homes and be self-sufficient for longer” (Informant 7).

In addition to the national Government encouraging a more ‘lifestyle approach’, it is recommended that clearer responsibility of which organisation is responsible for encouraging physical activity should also be given.
9.1.4 Clearer responsibility of what organisation is responsible for encouraging older adults to be physically active

It was highlighted that ambiguity exists about which organisation is responsible for encouraging older adults to live physically active lifestyles in New Zealand. Since 2009, when Sport NZ changed its mandate, there has been less encouragement and marketing directed at older adults. It is suggested that greater clarity is needed on this issue. It is also recommended that a national organisation is put in place, promoting ‘active ageing’ amongst older adults. This will ultimately lead to better guidance at the local level.

As identified, Sport NZ has a very broad focus. The five ‘key pillars’ of this organisation’s work include; young people, recreation, community sport, improving capability to the recreational sector and high performance sport. It is suggested that these ‘key pillars’ encompass, and give greater recognition to, the rapidly ageing population in New Zealand. This is important because this will flow into RSTs strategic plans, which will encourage planning for the rapidly ageing population to be promoted at a regional level. Ultimately, this will provide better guidance and direction at the local level. As identified, the GRx programme is Sport NZ’s only provision which encourages older adults to be active at present.
9.1.5 Greater awareness of the GRx Program throughout New Zealand

It was determined that, with the exception of the GRx programme, Sport NZ’s plans and strategies gave little consideration to older adults. However, in the research, only 42% of Older Adults interviewed had heard about this programme. This suggests that there should be greater awareness of the GRx programme and potential utilisation of it by health professionals. It is envisaged that this will provide low cost activities to help sedentary retired adults, and those who experience health conditions, to have improved health and wellbeing from regular participation in physical activity. In the future, it is recommended that there is better government directive at the policy level to encourage more effective planning initiatives to happen locally (BHFNC, 2012).

9.1.6 Implementation of the Ministry of Health’s physical activity guidelines into future planning and practice throughout New Zealand

The MOH is currently preparing physical activity guidelines for people aged 65 and older. These will be published in December 2012 and will provide recommendations about the amount of physical activity older people should do to improve their health, balance, flexibility and strength. These will be aligned with international recommendations about physical activity from; the United Kingdom, Australia and Canada. These places have comparable healthcare systems and face similar challenges as New Zealand (Informant 2, 4 and 6).

It was explained that these guidelines will give health practitioners, policy makers and physical activity professionals, comprehensive advice to inform older adults about the different types of activities they should be undertaking. These will be accompanied by public brochures and leaflets which encourage older adults to participate in physical activity (Informants 2 and 6). An academic from Waikato University exemplified:
“This is a very positive step from the MOH. Acknowledging that there is a need to support and encourage people 65 plus to live physically active lifestyles to enhance their health and wellbeing... It also identifies that physical activity is a crucial part of being an older person” (Informant 6).

It is suggested that local councils and professional bodies update their own policies and integrate these guidelines into practice. As these will be prepared by the MOH, they will have national significance, and therefore, it will be a necessity that these are implemented at the local level. This will enable local organisations which support older adults to be better resourced in the future. Consequently, this will encourage older adults to become active (McCann, 2006; BHFNC, 2012).

9.2 Sport and Health Industry

This second section will provide recommendations about how the sport and health industry can be best planned for in the future. Specific recommendations have been derived through interviews with employees in this field and local authorities throughout New Zealand.

9.2.1 Specific programmes and professional development among local authorities and the sport and health industry, focusing on preparing for the ageing population

An informant highlighted how important it is for local authority representatives, and employees in the sport and health industry, to be more equipped for the rapidly ageing population: “The population is going to get older; therefore, a plan which addresses some of these barriers to physical activity, sooner rather than later, is pretty important” (Informant 7). A representative from the MOH explained the strong need to “stay ahead of the game”. This means ensuring that new research reduces sedentary behaviour, and promotes the benefits of physical activity (Informant 2).
It suggested that every RST and local authority throughout New Zealand receives funding to provide a specialised programme which directly encourages older adults to be active. As identified, in the past, national initiatives like the KiwiSenior programme and the ACC funded Tai Chi programmes have been highly successful in encouraging sedentary elderly to be physically active.

Many informants stated the crucial need to understand, and plan for, the diverse older adult population. Grant (2006) expressed that ageing is a multi-faceted experience, which has great variation between individuals. Therefore, in many cases, older adults are more diverse; socially, culturally, economically and in health, in contrast to younger age cohorts (Grant, 2006). This notion must be given greater attention to in planning practices, and at the policy making level, to implement strategies which are holistic to all elderly people.

This will encourage services and programmes to be targeted more specifically to their needs, and make these providers more knowledgeable about their clients’ values and expectations of ageing (BHFNC, 2012). This will also ensure that they can provide older adults with age-friendly; infrastructure, facilities and programmes to support them to be active (Age Concern, 2007). Therefore, it is recommended that these opportunities are modified to maximise older adults’ involvement.

9.2.2 Local providers modifying physical activity opportunities to the individual needs of older adults

Due to the diverse ageing population, physical activity opportunities must be provided in a way that is tailored to their individual needs. This is reinforced by Informant 6: “Physical activity must be seen in the context of the older person. Participating in physical activity is really about who and what you are”. Literature by Whitehead (2010) further supported this, and argued if people do not enjoy exercise, they will not engage in it. Therefore, older adults must find an appropriate type of physical activity which suits their lifestyle and interests (Whitehead, 2010).
Informants from the MOH, MSD and Waikato University, argued that people should not cease exercising in their later years, however, they can modify the activities they participate in. This will enable them to: “engage in a way that suits their individual needs and interests” (Informant 2). Informant 6 expanded: “When you get into your 60’s you may stop playing Rugby. However, you can still go for runs or take-up an activity which is not a contact sport”.

It was also determined that the environments older adults exercise in should be modified to maximise their involvement. An Otago Grey Power representative indicated that the times of activities need to be adjusted to the season, to take advantage of sunlight hours. For example, winter activities should be run between 11am and 2pm. This will also allow older people to get home before it gets cold and dark (Informant 9). An employee from Sport Otago also suggested that exercise programmes take place in a variety of locations within urban areas, such as; recreational centres, schools and parks. This will ensure these activities are accessible to all older people, particularly those with limited mobility and access to transport (Informant 7).

In the research, many Older Adults interviewed, identified that sport and recreational opportunities provided for them should be age-friendly, accessible and have a participatory element. In many cases, when activities are too intense, older adults will cease taking part in them (Grant and Mclean, 2011). Informant 6 explained that many older people want to get involved in activities in a gentle way, however, many of these are, or are seen to be: “Too demanding... Consequently, they lose interest and give up. This is because it becomes too time consuming, boring and not part of their lifestyle”.

The cost associated with sport and recreational activities was recognised. These activities should be subsidised, with no hidden or extra costs associated with them (WHO, 2007). At present, there appear to be enough low cost activities to meet demand, however, these should be increased in size or scope to cater for the rapidly ageing population. It is recommended that the public and private
sector assist charitable organisations, to ensure the cost for older adults is low (WHO, 2007). This is particularly important for older tangata whenua, because they face a number of health disparities (Edwards, 2010).

9.2.3 Local providers offer programmes that allow and encourage whole whānau involvement

It is suggested that services are delivered to the tangata whenua using a whānau approach. Koroua and kuia have been fundamental to fulfil a range of different roles, such as facilitating the intergenerational transfer of language, history, tribal customs and culture. This has enhanced their whānau and their own individual wellbeing. Therefore, it advised that physical activity opportunities for older Māori adults are provided in a whānau, hapu and iwi based context to maximise their involvement (Edwards, 2010).

A Māori health provider at Te Hou Ora explained that they work with families as a collective by: “Teaching the family to do it themselves. Because if the family exercises, they will do it themselves. It’s a cultural thing”. They also noted that Māori people have often not followed national physical activity campaigns because they are not run for whānau and suggested that these would be more sustainable if they were (Informant 12). This concept is supported by Te Hou Ora who works with younger members of families to be physically active. They explained that this has encouraged older family members to exercise:

“It is about leading by example and exposure. It is a whole family approach. You need to get the young ones active. Once they are in, get the parents in. Then, and only then, will the elders come” (Informant12).

Informant 12 identified that Māori people often feel uncomfortable about being physically active in public. Therefore, the tangata whenua should be given opportunities to exercise with their families.
This is because “our faces change and strain when we exercise and some people don’t like non-family members seeing when they struggle” (Informant 12). Physical activity opportunities should be encouraged by sport and health industry employees and representatives from local authorities, through utilising the principles of the Te Whare Tapa Wha Model. This will provide a holistic model for sustainable participation. In the future, it is recommended that older adults are better informed about the opportunities which are available in their community.

9.2.4 Better marketing to the adult population about the opportunities available in their communities

A lack of relevant information about what was available in the community has been a barrier to participation in physical activity. A representative from Otago Grey Power supported this notion. They suggested that local authorities and District Health Boards should work in conjunction, by providing provisions and opportunities for isolated older people:

“When assessments are being done on what people need for their home help, they can also assess what type of activities this type of person could cope with and would probably benefit from. They could [also] pass on information where they could go, what is available, and how they can be taken out to mix with others” (Informant 9).

The WHO (2007) noted that physical activity opportunities must be conveyed clearly and effectively to older adults; printed legibly and in ‘plain English’. This may involve working with older adults’ ‘significant others’ such as their children, spouse or caregivers. Socially isolated older people can be informed about opportunities through volunteer callers and home support workers. Members should be kept on mailing lists for clubs, even if they do not attend, until the member requests to be taken off (WHO, 2007). It is recommendation that promotional messages which encourage physical activity, reflect the experiences of the tangata whenua and be prepared in partnership with Māori people (MOH, 2003). There are a number of recommendations which will be provided for the case study of Dunedin City.
9.3 Local Government

This third section will provide recommendations how the ageing population in New Zealand can be planned for at the local level. Specific recommendations are provided for Dunedin City and the wider Otago region, which were derived through interviews with older adults in Dunedin.

9.3.1 Raised awareness in the public about older adults importance in society

Many informants highlighted that there was a lack of awareness of how isolated older people are and the difficulties that they face. It is suggested that knowledge and understanding of the ageing population is increased through suitable education, training and resources, which inform people about the issues that older adults face (WHO, 2007; BHFNC, 2012). A representative from the NZRA said that sensitivity training should be given to new employees working for organisations providing physical activity opportunities for older adults, to educate them about issues facing elderly people (Informant 5). It is recommended that greater awareness of older adults’ issues is addressed in the school curriculum, and older people are given the opportunity to communicate their knowledge with younger generations (WHO, 2007).

In the research, many older adults identified that the large number of bars in Dunedin’s Octagon had impeded their access to this location. Consequently, they had felt uncomfortable attending activities and events in this area. It is suggested that this area is repaved to prevent people falling and clearly demarcating where the footpath is. Restrictions should also be put in place where bars can put their tables and chairs. The OPEN Forum (July 2012) identified that there is a strong need to value the older population, to promote positive ageing, and capitalise on skills and knowledge of this group. Therefore, the media should depict older adults positively in public imagery (Estes et al., 2003).
It is suggested that there should be more opportunities for older people to develop and use their skills and talents. Raised awareness of their issues, and importance in society, will make older adults more comfortable, and consequently increase their participation in society. In the future, it is suggested that there are further opportunities provided in Dunedin which inform older people about local clubs and activities in their communities. This will enable older people to further develop and use their skills. Therefore, both interest-based and sector-specific ‘Have a Go Days’ should be carried out. These will provide specific opportunities and programmes for the diverse older adult population. It is suggested that a more multidisciplinary approach is undertaken in future practices.

9.3.2 Multidisciplinary approach to planning among local authorities and service providers in the community

Many council representatives argued that there should be a more integrated approach undertaken amongst service providers and local authorities to encourage older adults to become active. The OPEN Forum (July 2012) illustrated that organisations in charge of transport, land use and health, each have own expertise, however, they often work in ‘isolation’ or ‘silos’.

It is recommended that local authorities in the Otago region work alongside other providers to enforce specialised schemes that reflect the needs of older adults. This will encourage an integrated approach in key decision making across and within organisations. It will also promote economic, social and environmental policies, and consequently, maximise opportunities for elderly people to be physically active (PHAC, 2010). For example, the Greater Wellington RC ‘Active A to B’ scheme has encouraged people to cycle, instead of using a private motor vehicle. In 2012, the council partnered with local health providers and this led to a dramatic uptake of this programme. This is because people understood cycling improved both transport and health.
There should also be a more integrated approach undertaken amongst service providers themselves in the Otago region. In the research, every Older Adult interviewed owned a SuperGold card. This card made a positive difference to every individual who used public transport, and had helped the majority travel to physical activity venues. However, no-one interviewed had used this card to become directly involved in a sport or recreational activity in Dunedin. This alludes to the idea that there should be a greater multi-disciplinary approach between sport and recreational providers and the co-ordinators of this card in the Otago region.

9.3.3 Improvement of public transport in the Otago region

Access to public transport has given people self-sufficiency to participate in society in their later years. It is recommended that public transport services are affordable, well-connected, accessible and reliable for older adults and travel to recreational and sport facilities. It is suggested that the Otago RC use the New Zealand Transport Authority vehicle quality standards when preparing and implementing public transport. This will encourage public transport to become more accessible for people with disabilities. Inequality concerns were highlighted in relation to the uptake of transportation services among adults living in rural areas. Therefore, it is suggested that regular public transport services are provided to the wider Otago region.

It is recommended that there is greater priority given to public transport in Dunedin City. There is no public transport services provided on Good Friday, Easter Sunday, Christmas Day and after 6.30 pm on Sunday nights in Dunedin. Public transport should not just be there for retail, during shopping hours. It should be there as a viable method of transport during all waking hours. Furthermore, more direct public transport routes are recommended to make public transport more desirable.


10

Conclusion

10.1 The research approach and questions

This research sought to determine older adults’ participation in physical activity in New Zealand, using Dunedin City as a case study. The case study approach was useful to study how the national ageing population is being planned for at the local level. The qualitative nature of the research strived to understand the key barriers and opportunities older adults in Dunedin had experienced participating in physical activity. Semi-structured interviews with planning professionals working within local councils and employees in the sport and health industry gauged; how the current planning system in New Zealand is enabling older adults to participate in physical activity, what services and resources are currently designated to increase this participation, and how physical activity for the ageing population can be best planned for at the local level. Special attention was given to encouraging older Māori adults to be physically active; this is because there is strong evidence which suggests that regular physical activity can lead to a range of health benefits for Māori people.

Thirty-nine semi-structured interviews were undertaken across three respondent groups. These included; 12 adults in Dunedin, 14 planning professionals working within local councils and 13 employees in the sport and health industry. The humanistic, qualitative approach adopted for the research allowed a comprehensive understanding of key issues, flexibility within the research process, and a greater understanding of key informants’ experiences, feelings and opinions. The findings presented have implications for the formation of future legislation, plans and strategies. They will inform government and policy makers, sport and recreation providers, and health and social services, to assist them to increase the number of older adults who are regularly active in New Zealand.
10.2 Key findings in research

When investigating the key barriers to engagement in physical activity, it was identified that there are a number of barriers that exist at the personal, community and national levels. These have varied in their effect, based on older adults’ age, gender, educational attainment, living arrangements, economic status, health, social skills and experiences. A key barrier identified in the literature was that older adults grew up during a time when life was exercise in itself, and therefore, many believe that they have lived the entirety of their physically active lives (Grant, 2008b; Koopman-Boyden and Waldegrave, 2009). Others are concerned about the appropriateness of exercising and many live with a fear of falls (Daley and Spinks, 2000; Rasinaho et al., 2007; Grant and Mclean, 2011). It was argued that services and facilities have often not been setup to cater for non-Europeans, especially for marginalised ethnic groups who face health disparities, like the tangata whenua. Many elderly are socially isolated, meaning they are less likely to access services, read local papers and engage in activities within their community (Dwer et al., 2000).

Family dynamics and the socio-economic status of many older people have prevented them from being active due to less time, energy and levels of disposable income (Sinclair, 2004; Age Concern, 2007). The social environment and transport issues, including; congested traffic, the time it takes to travel between places, and access to private and public transport, have all influenced the extent older adults participate in their communities (Davey, 2004; Sinclair, 2004; PHAC, 2010). However, many elderly people have become more active in their later years due to benefitting from improving life circumstances. Retirement has given some people more time to be active in society and take advantage of a number of highly subsidised programmes (Sinclair, 2004; MSD, 2011). It has encouraged older people to have greater social interaction and intergenerational contact (Chodzko-Zajko, 2000). It was argued that older adults who live active lifestyles, generally have lower rates of mortality, higher life expectancies and fewer years living with a disability, therefore, reducing their general medical expenditure (Daley and Spinks, 2000; Sinclair, 2004).
There are a number of key stakeholders and community organisations which have encouraged older adults to be physically active, including; the MOH, the MSD, the ACC, the NZRA, the RNZFB and Age Concern. However, it was identified that there is ambiguity about which organisation in New Zealand is responsible for encouraging older adults to live active lifestyles. In 2009, Sport NZ changed its mandate from ‘physical activity’ to focus more on ‘sport and recreation’, and consequently, being physically active has been marketed to a smaller audience. It was argued that this change in mandate has meant that there is no organisation to promote ‘active ageing’ amongst older adults. It was also highlighted that Sport NZ has given little consideration to older adults in their plans and strategies, and the GRx programme is the main area where Sport NZ focuses on the older adult population. It can be deduced that there is insufficient central guidance to encourage older adults to be active at the local level.

When investigating how the ageing population is being planned for at the local level, it was identified that difficulty has been experienced providing direct examples of how local authorities have encouraged their elderly people to be active. This is because every local council has planned for their ageing population in a different way. Some have consulted with their older adults through forums and surveys to enable their views to be represented in key decision making processes, while others have informed them about opportunities to be active through publications and campaigns. Local authorities have also adapted and maintained; green spaces, playgrounds, aquatic facilities and community centres within their areas to make them more accessible for people in their later years.

Local councils have provided older people with opportunities to be active through; voluntary conservation work, programmes, festivals and events. Māori health organisations have been contracted by local authorities to provide sport and recreational opportunities for the tangata whenua in their communities. Numerous local councils explained that they have improved older adults’ accessibility to public spaces, active transport and public transport. It was argued that the diverse older adult population will mean that local councils will need to reconsider their plans and policies over a broader spectrum in the future (Boston and Davey, 2006).
10.3 Implications for future

These findings have implications for future planning practices at the local level. Overall, the research formulated 13 recommendations that will be of value to; central government, the sport and health industry and local government, with specific focus to Dunedin City. First, recommendations were provided as to how central government can best encourage elderly people to be active. It was identified that there should be a greater recognition of the rapidly ageing population within legislation, policies and guidelines. Older adults should also be sufficiently consulted with when determining Government priorities, as they are a rapidly growing population sector within New Zealand. It was recommended that people need to be encouraged to be active in a way that has intrinsic meaning to them, not just encouraging physical activity to improve health and minimise medical expenditure. It is suggested that there is a clearer responsibility of what organisation is responsible for encouraging older adults to be physically active. Greater awareness of the GRx programme is also required and potential utilisation by health professionals. It is suggested that local councils and professional bodies update their own policies and integrate the Ministry of Health’s Physical Activity Guidelines into their own practices (McCann, 2006; BHFNC, 2012).

Second, there are a number of recommendations for the sport and health industry. It is suggested that professional development among service providers is offered, and every RST and local authority throughout New Zealand receives funding to provide a specialised programme to encourage older adults to be active. Physical activity opportunities should also be provided in way that is tailored to the needs of the individual, including modifying the; types of activities, environment, having a greater participatory element and lowering costs. These opportunities should also be delivered to the tangata whenua using a whānau approach. It is argued that older adults should become better informed about the opportunities which are available in their community.
Finally, there are a number of ways the ageing population can be planned for at the local level, with specific reference to Dunedin City and the wider Otago region. It is recommended that there is raised awareness of older adults’ issues and their importance in society. It is suggested that Dunedin’s Octagon is repaved to prevent people falling, and clearly demarcating where the footpath is to assist older adults attending activities and events in this area. It is recommended that there should be a more multidisciplinary approach to planning amongst local authorities and service providers within Otago. Finally, it is argued that the public transport system should be improved throughout the Otago region to encourage older adults to utilise it, to increase their participation in physical activity.

10.4 Limitations and future research

As with any research, certain limitations were apparent in the study. The broad scope of this research made it challenging to go into significant detail in many aspects in the research. Time constraints meant the number of people and organisations interviewed was restricted. The process, in which Older Adults were selected, resulted in a limited study base, because the majority of participants were of New Zealand origin and female. This may have meant ‘silenced’ groups who had limited connections were not included, such as, older adults with disability or with limited access to transport. As participants had to volunteer to be interviewed and could not be approached first, those who did volunteer may have generally been more active within the community. Furthermore, the statistical demographics may be different to the current demographics. This is because the latest census was undertaken in 2006 and considerable events have occurred since then, ie; the Canterbury earthquakes.

The timing of this research meant that significant changes at the national level were being implemented, and the full effects of these may not be seen. Of note, the HEHA strategy finished during the study period, and the Ministry of Health’s Guidelines will be shortly released. However, significant effort was made to enhance the consistency and precision of the methodological approach. The research approach used triangulation, and was designed using reflective procedures to minimise these limitations.
Chapter 10: Conclusion

There are a number of areas of research which could be examined in greater detail. An in-depth examination of older adults’ experiences in the GRx programme, to determine whether it is fulfilling their needs and has enough publicity. Likewise, an assessment of how the different RSTs throughout New Zealand have facilitated and encouraged older adults to be active should be carried out. The impact of policy body changes in relation to the Ministry of Health’s Physical Activity Guidelines and the Dunedin Social Wellbeing Strategy is another key area of study. Likewise, the removal of the HEHA strategy and the ACC funded Tai Chi programmes throughout the country could also be an area of research. Undertaking research based on a sample taken from the electoral role would provide a more accurate representation of elderly adults’ demographics and include any ‘silenced’ groups. Finally, it is suggested that a cost-benefit analysis on planning for and promoting physical activity in older adults is undertaken. This should include the costs to the healthcare system if these recommendations are fulfilled or not.
References


Office for Senior Citizens (2005) *Briefing to the Incoming Minister: Taking a Positive Approach to Ageing,* Wellington: Office for Senior Citizens


SPARC (2003b) Obstacles to Action: A Study of New Zealanders’ Physical Activity and Nutrition, Wellington: SPARC.

SPARC (2011) Briefing to the Incoming Minister for Sport and Recreation, Wellington: Sport and Recreation New Zealand.


Appendix A

Posters/ Pamphlets Advertising for Research Participants
Study About Older Adults
Participation in Physical Activity

Seeking Participants

For a student research project with the University of Otago

We want to hear about YOUR personal experiences participating in physical activity….

Are you?
- 65+
- Been retired for 12 months+
- Lived in Dunedin for 12 months+

Project Aim:

To investigate the experiences of older adults in physical activity in Dunedin

Your feedback will be used to offer planners a better insight into the:

- Barriers to older adults' participation in sport and recreation
- Opportunities for older adults' participation in sport and recreation

This will encourage better planning initiatives in future local government policies to enable you to optimise your opportunities to participate in physical activity in Dunedin.

Informal interviews, lasting approximately 30 minutes will be conducted with willing participants in June

If you are interested, or have any questions please contact Kate

Phone: ______________ or Email: ______________

Study About Older Adults
Participation in Physical Activity

Seeking Key Informants

For a student research project with the University of Otago

We want to hear about **YOUR** experiences working for a Local Council….

Are you?

- Working as a Planning Professional for a Local Council?
- Knowledgeable about planning for older adults participation in physical activity?

Project Aim:

*To investigate the experiences of older adults in physical activity in New Zealand*

Your feedback will be used to offer planners a better insight into the:

- Barriers to older adults' participation in sport and recreation
- Opportunities for older adults' participation in sport and recreation

This will encourage better planning initiatives in future local government policies to enable older adults to optimise their opportunities to participate in active recreation.

Informal interviews, lasting approximately 30-45 minutes

will be conducted with willing participants in June.

If you are interested, or have any questions please contact

Kate Biddlecombe

Phone: ____________ or Email: ____________________
Study About Older Adults
Participation in Physical Activity

Seeking Key Informants

For a student research project with the University of Otago

We want to hear about YOUR experiences

working in sport and health industry,….

Are you?
- Working in the sport and/or health industry?
- Knowledgeable about older adults participation in physical activity?

Project Aim:

To investigate the experiences of older adults in physical activity in New Zealand

Your feedback will be used to offer planners a better insight into the:

- Barriers to older adults' participation in sport and recreation
- Opportunities for older adults' participation in sport and recreation

This will encourage better planning initiatives in future local government policies to enable older adults to optimise their opportunities to participate in active recreation.

Informal interviews, lasting approximately 30-45 minutes
will be conducted with willing participants in June.

If you are interested, or have any questions please contact

Kate Biddlecombe

Phone: ______________ or Email: ________________
Appendix B

Information Sheet for Participants

1. Older Adults
2. Local Council Representatives
3. Sport and Health Industry Employees
Planning for Older Adults:
Experiences in Active Recreation

Information Sheet for Participants

Thank you for showing an interest in this project. Please read this information sheet carefully before deciding whether or not to participate. If you decide to participate we thank you. If you decide not to take part there will be no disadvantage to you and we thank you for considering our request.

What is the Aim of the Project?

This thesis is being undertaken as part of the requirements for a Master of Planning at the University of Otago. Increased life expectancy, declining fertility rates and the baby-boomer generation approaching retirement contribute to New Zealand’s ageing population. By 2051, there will be 1.18 million people aged 65 and older, representing an increase of 165% since 2001. There is an urgent need for older people to remain active by participating in regular exercise to have healthy and satisfied lives beyond retirement. This thesis will determine whether there is sufficient planning devoted to enabling them to participate in physical activity.
The aim of this research project is to answer these primary questions:

(1) What are the key barriers to, and opportunities for, engagement in physical activity?

(2) How does the current planning system in New Zealand enable older adults to participate in physical activity?

(3) What services and resources are currently provided to encourage older adults to partake in physical activity?

(4) To what extent have older tangata whenua been represented in recreational planning within New Zealand?

(5) How can the ageing population of New Zealand be planned for at the local level, in relation to future opportunities for physical activity

What Type of Participants are being sought?

For the purpose of the thesis, participants being sought must fulfil the following criteria:

- 65 years or older
- Retired for over 12 months
- Lived in Dunedin for over 12 months

What will Participants be Asked to Do?

Should you agree to take part in this project, you will be asked to answer a number of questions seeking what you believe the key barriers to, and opportunities for, participation in physical activity in Dunedin. This will involve approximately 30 minutes of your time. With your permission, the interview will be audio taped with a Dictaphone for later transcription.
What Data or Information will be Collected and What Use will be Made of it?

(1) On the Consent Form you will be given options regarding your anonymity. Please be aware that should you wish for your identity to remain anonymous, your wish will be upheld by the student researcher throughout the project. However, with your consent, there are some cases where it would be preferable to attribute contributions made to individual participants. Please note, it is absolutely up to you which of these options you prefer.

(2) The student researcher will transcribe the audiotapes on her laptop which will be protected by a password. Only the student researcher and the supervisor will have access to the audiotape recordings and the interview transcriptions.

(3) The data collected will be securely stored in such a way that only the student researcher and her supervisor will be able to have access to it. At the end of the project any personal information will be destroyed immediately except that, as required by the University’s research policy, any raw data on which the results of the project depend will be retained in secure storage for five years, after which it will be destroyed.

(4) All participants can access their own interview transcripts or Dictaphone recordings at any stage during, or after the project. If requested, the participant will be given the opportunity to view the data or information that relates to them in the completed research. They will be sent the data by email and asked to make ‘tracked changes’ should they want something altered. The student will discuss this with the supervisor to confirm whether the change is necessary.

(5) The student’s final research thesis will be made available to participants once completed in November in 2012. The results of the project may be published and be available in the University of Otago library. You are most welcome to request a copy of the results of the project should you wish.

(6) This project involves a semi-structured interviewing technique. The general line of questioning includes investigating the extent to which planning and amenities provide opportunities for New Zealand’s ageing population to live physically active lifestyles. The student researcher will start the interview with a few broad questions, which will develop in relation to your position and interests. In the event that the line of questioning develops in such a way that you feel hesitant or uncomfortable, you are reminded of your right to decline to answer any particular question(s).
Can Participants Change their Mind and Withdraw from the Project?

You may withdraw from the project at any stage without any disadvantage to yourself of any kind.

What if Participants have any Questions?

If you have any questions about our project, either now or in the future, please feel free to contact either:-

Kate Biddlecombe and/or Claire Freeman
Department of Geography Department of Geography
03 479 9037
Email Address:
bidka075@student.otago.ac.nz Email Address:
cf@geography.otago.ac.nz

This study has been approved by the University of Otago Human Ethics Committee. If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (ph 03 479 8256). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.
Planning for Older Adults:
Experiences in Active Recreation

Information Sheet for Participants

Thank you for showing an interest in this project. Please read this information sheet carefully before deciding whether or not to participate. If you decide to participate we thank you. If you decide not to take part there will be no disadvantage to you and we thank you for considering our request.

What is the Aim of the Project?

This thesis is being undertaken as part of the requirements for a Master of Planning at the University of Otago. Increased life expectancy, declining fertility rates and the baby-boomer generation approaching retirement contribute to New Zealand’s ageing population. By 2051, there will be 1.18 million people aged 65 and older, representing an increase of 165% since 2001. There is an urgent need for older people to remain active by participating in regular exercise to have healthy and satisfied lives beyond retirement. This thesis will determine whether there is sufficient planning devoted to enabling them to participate in physical activity.
The aim of this research project is to answer these primary questions:

1. What are the key barriers to, and opportunities for, engagement in physical activity?
2. How does the current planning system in New Zealand enable older adults to participate in physical activity?
3. What services and resources are currently provided to encourage older adults to partake in physical activity?
4. To what extent have older tangata whenua been represented in recreational planning within New Zealand?
5. How can the ageing population of New Zealand be planned for at the local level, in relation to future opportunities for physical activity?

What Type of Participants are being sought?

For the purpose of the thesis, participants being sought must fulfil the following criteria:

- Working within a planning profession within a Local Council in New Zealand
- Knowledgeable about planning for older adults’ participation in physical activity

What will Participants be Asked to Do?

Should you agree to take part in this project, you will be asked to answer a number of questions seeking your experiences working for a Local Council within New Zealand and knowledge about planning for older adults' participation in physical activity. This will involve approximately 30 minutes of your time. With your permission, the interview will be audio taped with a Dictaphone for later transcription.
What Data or Information will be Collected and What Use will be Made of it?

(1) On the Consent Form you will be given options regarding your anonymity. Please be aware that should you wish for your identity to remain anonymous, your wish will be upheld by the student researcher throughout the project. However, with your consent, there are some cases where it would be preferable to attribute contributions made to individual participants. Please note, it is absolutely up to you which of these options you prefer.

(2) The student researcher will transcribe the audiotapes on her laptop which will be protected by a password. Only the student researcher and the supervisor will have access to the audiotape recordings and the interview transcriptions.

(3) The data collected will be securely stored in such a way that only the student researcher and her supervisor will be able to have access to it. At the end of the project any personal information will be destroyed immediately except that, as required by the University’s research policy, any raw data on which the results of the project depend will be retained in secure storage for five years, after which it will be destroyed.

(4) All participants can access their own interview transcripts or Dictaphone recordings at any stage during, or after the project. If requested, the participant will be given the opportunity to view the data or information that relates to them in the completed research. They will be sent the data by email and asked to make ‘tracked changes’ should they want something altered. The student will discuss this with the supervisor to confirm whether the change is necessary.

(5) The student’s final research thesis will be made available to participants once completed in November in 2012. The results of the project may be published and be available in the University of Otago library. You are most welcome to request a copy of the results of the project should you wish.

(6) This project involves a semi-structured interviewing technique. The general line of questioning includes investigating the extent to which planning, legislation, policies and amenities provide opportunities for New Zealand’s ageing population to live physically active lifestyles. The student researcher will start the interview with a few broad questions, which will develop in relation to your position and interests. In the event that the line of questioning develops in such a way that you feel hesitant or uncomfortable, you are reminded of your right to decline to answer any particular question(s).
Can Participants Change their Mind and Withdraw from the Project?

You may withdraw from the project at any stage without any disadvantage to yourself of any kind.

What if Participants have any Questions?

If you have any questions about our project, either now or in the future, please feel free to contact either:-

Kate Biddlecombe and/or Claire Freeman
Department of Geography Department of Geography
03 479 9037

Email Address:
bidka075@student.otago.ac.nz cf@geography.otago.ac.nz

This study has been approved by the University of Otago Human Ethics Committee. If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (ph 03 479 8256). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.
Planning for Older Adults:
Experiences in Active Recreation

Information Sheet for Participants

Thank you for showing an interest in this project. Please read this information sheet carefully before deciding whether or not to participate. If you decide to participate we thank you. If you decide not to take part there will be no disadvantage to you and we thank you for considering our request.

What is the Aim of the Project?

This thesis is being undertaken as part of the requirements for a Master of Planning at the University of Otago. Increased life expectancy, declining fertility rates and the baby-boomer generation approaching retirement contribute to New Zealand’s ageing population. By 2051, there will be 1.18 million people aged 65 and older, representing an increase of 165% since 2001. There is an urgent need for older people to remain active by participating in regular exercise to have healthy and satisfied lives beyond retirement. This thesis will determine whether there is sufficient planning devoted to enabling them to participate in physical activity.
The aim of this research project is to answer these primary questions:

1. What are the key barriers to, and opportunities for, engagement in physical activity?
2. How does the current planning system in New Zealand enable older adults to participate in physical activity?
3. What services and resources are currently provided to encourage older adults to partake in physical activity?
4. To what extent have older tangata whenua been represented in recreational planning within New Zealand?
5. How can the ageing population of New Zealand be planned for at the local level, in relation to future opportunities for physical activity

What Type of Participants are being sought?

For the purpose of the thesis, participants being sought must fulfil the following criteria:

- Working within the sport and/or health industry
- Knowledgeable about planning for older adults’ participation in physical activity

What will Participants be Asked to Do?

Should you agree to take part in this project, you will be asked to answer a number of questions seeking your experiences working for the sport/health industry and knowledge about how New Zealand’s planning system provide for the participation of older adults in physical activity. This will involve approximately 30 minutes of your time. With your permission, the interview will be audio taped with a Dictaphone for later transcription.
What Data or Information will be Collected and What Use will be Made of it?

(1) On the Consent Form you will be given options regarding your anonymity. Please be aware that should you wish for your identity to remain anonymous, your wish will be upheld by the student researcher throughout the project. However, with your consent, there are some cases where it would be preferable to attribute contributions made to individual participants. Please note, it is absolutely up to you which of these options you prefer.

(2) The student researcher will transcribe the audiotapes on her laptop which will be protected by a password. Only the student researcher and the supervisor will have access to the audiotape recordings and the interview transcriptions.

(3) The data collected will be securely stored in such a way that only the student researcher and her supervisor will be able to have access to it. At the end of the project any personal information will be destroyed immediately except that, as required by the University’s research policy, any raw data on which the results of the project depend will be retained in secure storage for five years, after which it will be destroyed.

(4) All participants can access their own interview transcripts or Dictaphone recordings at any stage during, or after the project. If requested, the participant will be given the opportunity to view the data or information that relates to them in the completed research. They will be sent the data by email and asked to make ‘tracked changes’ should they want something altered. The student will discuss this with the supervisor to confirm whether the change is necessary.

(5) The student’s final research thesis will be made available to participants once completed in November in 2012. The results of the project may be published and be available in the University of Otago library. You are most welcome to request a copy of the results of the project should you wish.

(6) This project involves a semi-structured interviewing technique. The general line of questioning includes investigating the extent to which planning, legislation, policies and amenities provide opportunities for New Zealand’s ageing population to live physically active lifestyles. The student researcher will start the interview with a few broad questions, which will develop in relation to your position and interests. In the event that the line of questioning develops in such a way that you feel hesitant or uncomfortable, you are reminded of your right to decline to answer any particular question(s).
Can Participants Change their Mind and Withdraw from the Project?

You may withdraw from the project at any stage without any disadvantage to yourself of any kind.

What if Participants have any Questions?

If you have any questions about our project, either now or in the future, please feel free to contact either:-

Kate Biddlecombe and/or Claire Freeman
Department of Geography
Department of Geography
03 479 9037

Email Address:
bidka075@student.otago.ac.nz
Email Address:
cf@geography.otago.ac.nz

This study has been approved by the University of Otago Human Ethics Committee. If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (ph 03 479 8256). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.
Appendix C

Consent form for Participants
Planning for the Elderly: 
Experiences in Active Recreation

I have read the Information Sheet concerning this project and understand what it is about. All my questions have been answered to my satisfaction. I understand that I am free to request further information at any stage.

I know that:-

1. My participation in the project is entirely voluntary;

2. I am free to withdraw from the project at any time without any disadvantage;

3. Personal identifying information such as interview transcriptions and audio tapes will be destroyed at the conclusion of the project but any raw data on which the results of the project depend will be retained in secure storage for at least five years;

4. This project will involve a semi-structured interviewing technique. The general line of questioning will seek the views, values and experiences of older adults in relation to their participation in sport and recreation. The precise nature of the questions which will be asked have not been determined in advance, but will depend on the way the interview develops. In the event that the line of questioning develops in such a way that I feel hesitant or uncomfortable I may decline to answer any particular question(s) and/or may withdraw from the project without any disadvantage of any kind.

5. I can inform the researcher at any stage if I feel uneasy, and the researcher will immediately stop the questioning.

6. Personal identifying information included on the Dictaphone and interview transcriptions will be destroyed at the conclusion of the project but any raw data on which the results of the project depend will be retained in secure storage for at least five years, as per University of Otago policy.

7. The results of the project may be published and will be available in the University of Otago Library (Dunedin, New Zealand) but every attempt will be made to preserve my anonymity should I choose to remain anonymous.

8. I, as the participant: a) agree to being named in the research,  
   b) would rather remain anonymous

I agree to take part in this project.

.................................................. ........................................
(Signature of participant) (Date)

This study has been approved by the University of Otago Human Ethics Committee. If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (ph 03 479 8256). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.
Appendix D

Interview Topics

1. Older Adults
2. Local Council Representatives
3. Sport and Health Industry Employees
1. Questions for Older Adults

General Questions

Have you ever played a sport or been physically active in your life?

Do you currently participate in a sport or recreational activity? (How many times a week?)

Do you have any other pass time which have an element of physical activity?

What motivates you to be physically active?

Has participating in physical activity improved your overall life? (If so, how?)

Are you satisfied with the amount of time you spend participating in physical activity?

Growing up, what were the attitudes surrounding participating in physical activities?

Barriers to participation in sport and recreation?

Do you feel safe living in your neighbourhood?

Have you ever felt unsafe or threatened when participating in physical activity?

Have you ever experienced any health conditions which have prevented you from participating in physical activity?

Are you within walking distance to a bus stop?

Has limited access to transport ever prevented you from participating in physical activity?

Has the cost of activities ever prevented you from participating in physical activity?

What are other barriers which have prevented you from participating in physical activity?

Anything you would like the Council to do to make being physically active more accessible?
**Accessibility Issues?**

How have the services and infrastructure provided within your community catered for you to be physically active?

How have you been informed about physical activity opportunities that exist within your community?

Do you believe there are sufficient events hosted within Dunedin which appeal to older adults?

Do you believe there are enough parks and green spaces within walking distance in your neighbourhood?

Do you own a Gold Card? (If so, has this increased your participation to physical activity opportunities which exist within your community?)

Have you heard of the Green Prescription Programme? (If so, how?)
2. Questions for Local Council Representatives

What is your role within the Council?

What services/events/amenities have been provided by the Council to encourage physical activity among older adults?

How have older adults responded to more generic physical activity programmes which have been more inclusive to the wider community?

How has the Council specifically consulted with older adults for their plans and strategies?

Does the Council have a Positive Ageing Strategy/Older Person’s Policy?

Explain the Council's relationship with their Regional Sports Trust?

Māori people face a number of health disparities, has the Council taken any specific measures to encourage older Māori adults to be physically active?

Barriers which older adults have faced which have prevented them from participating in sport and recreation?

Community attitudes towards older adults within the region?

Any future planning initiatives to encourage older adults to be physically active?

How can the Council best plan for the ageing population of New Zealand, in relation to future opportunities for physical activity?

The Council’s vision for older adults in the community?
3. Questions for Sport and Health Industry Employees

What is your role?

The organisation’s niche market?

How have the needs of older adults been represented within the organisation?

How has the organisation encouraged older adults to be physically active?

Any initiatives/programmes which have been specifically successful among older adults to encourage them to be physically active?

Barriers which older adults have faced which have prevented them from participating in physical activity?

How have you helped ‘remove’ these barriers?

Explain the organisation’s relationship with Sport New Zealand?

Māori people face a number of health disparities, has the organisation provided any specific services/programmes to encourage older Māori adults to be physically active?

Explain Councils and/or Regional Sports Trusts which have provided best practice planning to encourage their older adults to be physically active?

Any future initiatives within the organisation to encourage older adults to be physically active?

What is the organisation’s vision for older adults in New Zealand?

Questions for Māori Health Providers

What is your role?

How has the organisation specifically encouraged older Māori adults to be physically active?

What Māori Models of Health have you used within the organisation?

Kaumātua play an important role within Māori society. Have they supported any of the organisation’s projects?

How has the organisation helped reduce Māori health disparities?

Future projects to encourage older Māori adults to be physically active?
Appendix E

Key Informants

1. Older Adults
2. Local Council Representatives
3. Sport and Health Industry Employees
4. Other Organisations that were Contacted
1. Older Adults

<table>
<thead>
<tr>
<th>Older Adult</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Older Adult 1</td>
<td>South Dunedin</td>
</tr>
<tr>
<td>Older Adult 2</td>
<td>South Dunedin</td>
</tr>
<tr>
<td>Older Adult 3</td>
<td>St Claire</td>
</tr>
<tr>
<td>Older Adult 4</td>
<td>St Claire</td>
</tr>
<tr>
<td>Older Adult 5</td>
<td>Caversham</td>
</tr>
<tr>
<td>Older Adult 6</td>
<td>Caversham</td>
</tr>
<tr>
<td>Older Adult 7</td>
<td>Musselburgh</td>
</tr>
<tr>
<td>Older Adult 8</td>
<td>Central Dunedin</td>
</tr>
<tr>
<td>Older Adult 9</td>
<td>Helensburgh</td>
</tr>
<tr>
<td>Older Adult 10</td>
<td>Brockville</td>
</tr>
<tr>
<td>Older Adult 11</td>
<td>Brockville</td>
</tr>
<tr>
<td>Older Adult 12</td>
<td>Brockville</td>
</tr>
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</table>
2. **Council Representatives**

<table>
<thead>
<tr>
<th>Representative</th>
<th>Name of Local Council</th>
</tr>
</thead>
<tbody>
<tr>
<td>Representative 1</td>
<td>Greater Wellington Regional Council</td>
</tr>
<tr>
<td>Representative 2</td>
<td>Auckland Council</td>
</tr>
<tr>
<td>Representative 3</td>
<td>Christchurch City Council</td>
</tr>
<tr>
<td>Representative 4</td>
<td>Dunedin City Council</td>
</tr>
<tr>
<td>Representative 5</td>
<td>Dunedin City Council</td>
</tr>
<tr>
<td>Representative 6</td>
<td>Palmerston North City Council</td>
</tr>
<tr>
<td>Representative 7</td>
<td>Hastings District Council</td>
</tr>
<tr>
<td>Representative 8</td>
<td>New Plymouth DC</td>
</tr>
<tr>
<td>Representative 9</td>
<td>Rotorua District Council</td>
</tr>
<tr>
<td>Representative 10</td>
<td>Rotorua District Council</td>
</tr>
<tr>
<td>Representative 11</td>
<td>Thames-Coromandel District Council</td>
</tr>
<tr>
<td>Representative 12</td>
<td>Upper Hutt City Council</td>
</tr>
<tr>
<td>Representative 13</td>
<td>Upper Hutt City Council</td>
</tr>
<tr>
<td>Representative 14</td>
<td>Waitaki District Council</td>
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</table>
# 3. Sport and Health Industry Employees

<table>
<thead>
<tr>
<th>Informant</th>
<th>Sport/Health Employees</th>
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<tbody>
<tr>
<td>Informant 1</td>
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<tr>
<td>Informant 2</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>Informant 3</td>
<td>Ministry of Social Development</td>
</tr>
<tr>
<td>Informant 4</td>
<td>Sport New Zealand</td>
</tr>
<tr>
<td>Informant 5</td>
<td>New Zealand Recreation Association</td>
</tr>
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<td>Informant 6</td>
<td>Waikato University</td>
</tr>
<tr>
<td>Informant 7</td>
<td>Sport Otago</td>
</tr>
<tr>
<td>Informant 8</td>
<td>Coleman Consultancy</td>
</tr>
<tr>
<td>Informant 9</td>
<td>Grey Power</td>
</tr>
<tr>
<td>Informant 10</td>
<td>Kai Tahu Ki Otago Ltd</td>
</tr>
<tr>
<td>Informant 11</td>
<td>Tumai Ora (Waikouaiti)</td>
</tr>
<tr>
<td>Informant 12</td>
<td>Te Hou Ora</td>
</tr>
<tr>
<td>Informant 13</td>
<td>Royal New Zealand Foundation for the Blind</td>
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</table>
4. Other Organisations that were Contacted:

- Public Health South
- Southern District Health Board
- Department of Preventative & Social Medicine (Otago University)
- New Zealand Heart Foundation (Otago Branch)
- Presbyterian Support Otago - Enliven Dunedin
- Tokomairiro Waiora (Milton)
- Te Hotu Manawa Māori
- Office for Senior Citizens
Demographic Data for Older Adults
<table>
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<tr>
<th>Variable</th>
<th>Category</th>
<th>Percentage</th>
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<tr>
<td>Gender</td>
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<td></td>
<td>Male</td>
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<td></td>
<td>70 to 74 years</td>
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<td>75 to 79 years</td>
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<td></td>
<td>80 to 84 years</td>
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<tr>
<td></td>
<td>85 years +</td>
<td>8%</td>
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<td>Ethnic Group</td>
<td>New Zealand European</td>
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<tr>
<td></td>
<td>Māori</td>
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<tr>
<td>Lived in Dunedin</td>
<td>1 to 2 years</td>
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<tr>
<td></td>
<td>3 to 5 years</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>6 to 10 years</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>11 to 20 years</td>
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</tr>
<tr>
<td></td>
<td>21 to 30 years</td>
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<td>30 years +</td>
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<td></td>
<td>3 to 5 years</td>
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<tr>
<td></td>
<td>5 to 10 years</td>
<td>-</td>
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<tr>
<td></td>
<td>10 years +</td>
<td>92%</td>
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<td>Trade Qualification</td>
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<td>University Degree</td>
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<td>Living Arrangement</td>
<td>Living in own house</td>
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<td>Renting</td>
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<td>Living With</td>
<td>Living alone</td>
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<td></td>
<td>Living with spouse</td>
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<td>Income Before Tax</td>
<td>Up to $15,000</td>
<td>40%</td>
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<td>$15,001-$20,000</td>
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<tr>
<td></td>
<td>$20,001-$30,000</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>$30,001-$40,000</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>$40,001 +</td>
<td>10%</td>
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<td>Describe Current Health</td>
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<td></td>
<td>Good</td>
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<td></td>
<td>Very Good</td>
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<td>Frequency participating in physical activity every week</td>
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<tr>
<td></td>
<td>3x week</td>
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<td></td>
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<tr>
<td></td>
<td>5x week</td>
<td>3 people</td>
</tr>
<tr>
<td></td>
<td>6x week</td>
<td>2 people</td>
</tr>
<tr>
<td></td>
<td>7x week</td>
<td>2 people</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Has participating in physical activity improved your health and wellbeing?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Are you satisfied with amount of time being physically active?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Physically active before joining the Octagon Club?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Activities participants were involved in</td>
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<tr>
<td>Bowlers</td>
<td>6</td>
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<tr>
<td>Age Concern Exercise Classes</td>
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<td></td>
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<tr>
<td>Walking Group</td>
<td>4</td>
<td></td>
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<tr>
<td>Walking alone</td>
<td>4</td>
<td></td>
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<tr>
<td>Aqua Aerobics/Jogging/swimming</td>
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<td></td>
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<tr>
<td>Gardening</td>
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<td>Age Concern Line dancing</td>
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<tr>
<td>House Maintenance</td>
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<td>Track clearing</td>
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<td>Exercises in Bed</td>
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</tr>
<tr>
<td>Going to Gym</td>
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<tr>
<td>Playing with grandchildren</td>
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Appendix G

Recruitment Table for Older Adults
Study About Older Adults
Participation in Physical Activity

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<thead>
<tr>
<th>Name</th>
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<th>Email (Optional)</th>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you have any questions about this study, please contact Kate
Phone: 027 340 0025 or Email: k_biddlecombe@hotmail.com
Appendix H

Demographic Survey for Older Adults
Planning for the Elderly: Experiences in Active Recreation

Dear..................

Thank you for showing an interest in this project. As part of the aim and purpose of the project the following information will be asked in the survey below. Please circle the option which is most applicable to you. Information gathered will be used solely to describe the population sample of older adults in this survey. Should you choose to provide this information, your confidentiality is guaranteed and you will never be identified individually. If you do not wish to complete this survey your wish to remain anonymous will be upheld by the student researcher throughout the project.

Please have this survey completed before your interview with Kate Biddlecombe.

Tick relevant box which applies:

I, as the participant:

a) agree for this survey information to be used in the research,

b) would rather this survey information remains anonymous
Please **CIRCLE** the Most Relevant Answer 😊

**What is your Gender?**
Female/ Male

**What is your age category?**
- 65 to 69 years
- 70 to 74 years
- 75 to 79 years
- 80 to 84 years
- 85 years +
- Would rather not say

**How long have you been retired?**
- 1-2 years
- 3-5 years
- 5-10 years
- 10 years +

**What ethnicity to you associate most with?**
- New Zealand European
- Māori
- Pacific Islander
- Asian
- European
- English
- Irish
- Scottish
- Indian
- Other (Please specify)…………

**What is the highest level of education you have completed?**
- Up to Primary Education
- Secondary Education
- Polytechnic Qualification
- Trade Qualification
- University Degree
- Would rather not say
How long have you lived in Dunedin for?
1-2 years 10-20 years
3-5 years 20-30 years
5-10 years 30 years +

What is your current living arrangement?
Living in own house Living in a Retirement Home
Renting Living in a Hospice/Hospital

What is your total income before tax?
Up to $15,000, $30,001-$40,000
$15,001-$20,000 $40,001 +
$20,001-$30,000 Would rather not say

What is your living arrangement?
Live alone Living with extended family
Living with a spouse or partner Living with flatmates or friends
Living with immediate family Would rather not say

How do you describe your current health?
Fair Very Good
Good

Thank you for your participation.
Please give this to Kate at your interview 😊