

# Midlife New Zealanders Aged 40-64 in 2008:

Enhancing Wellbeing in an Ageing Society



Edited by  
**Charles Waldegrave**  
and  
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# **Midlife New Zealanders Aged 40-64 in 2008:**

**Enhancing Wellbeing in an Ageing Society**

## **Enhancing Wellbeing in an Ageing Society (EWAS) Monograph No. 2**

**Editors:** Charles Waldegrave and Peggy Koopman-Boyden

**Publishers:** Family Centre Social Policy Research Unit, Lower Hutt, Wellington and the Population Studies Centre, University of Waikato, Hamilton

**Date of publication:** March 2010

The EWAS monographs (pdf files) can be obtained from the following websites:

<http://www.ewas.net.nz>

<http://www.waikato.ac.nz/wfass/populationstudiescentre>

<http://www.familycentre.org.nz>

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ISBN: 1-877149-98-5

ISSN: 1177-4029

# Preface

The research programme *Enhancing Wellbeing in an Ageing Society* (EWAS), funded by the Foundation for Research, Science and Technology for six years, between 2004 and 2009, has been conducted by staff in the Population Studies Centre at the University of Waikato, Hamilton and the Family Centre Social Policy Research Unit in Lower Hutt, Wellington, and managed through a partnership agreement between the two institutions. The aim of the research is to “*provide the understanding that is essential for policy formulation and the delivery of services for enhancing wellbeing in an ageing New Zealand society.*”

The research programme includes two large-scale, national, random sample surveys of independent and semi-independent New Zealanders between the ages of 40 and 64 years, and 65 and 84 years. The programme has also produced a range of case studies of particular groups, carried out using qualitative methods including focus groups and in-depth interviews ([www.ewas.net.nz](http://www.ewas.net.nz)).

This is the second monograph which reports the first results of the survey of 1,958 midlife respondents aged between 40 and 64 years. It focuses on the key determinants of their level of wellbeing – health, education, work history, leisure pursuits, safety and income, amongst other variables. This is a companion monograph to the earlier published *Enhancing Wellbeing in an Ageing Society: 65 to 84 year old New Zealanders in 2007* which was edited by Peggy Koopman-Boyden and Charles Waldegrave.

The key researchers at the Family Centre have been Charles Waldegrave (Co-Director of the EWAS research programme) and Peter King. At the University of Waikato the researchers have been Jacques Poot (Co-Director of the EWAS research programme 2004-2006), Arunachalam Dharmalingam (2004-2005), Sarah Hillcoat-Nallétamby (2004-2005), Ian Pool (2004-2009), and since 2006, Richard Bedford (Co-Director), Peggy Koopman-Boyden, Suzan van der Pas, Michael P. Cameron and Ben Amey.

A number of other people have also been involved in the research programme, and we would like to acknowledge their valuable contributions. At the University of Waikato they are: Bill Cochrane (who had oversight of the two surveys through the Computer Assisted Telephone Interviewing facility in the Department of Societies and Culture), Hani Jelle (who supervised the team of interviewers), the interviewers themselves (who spent long hours patiently interviewing the respondents from all round New Zealand), and Katie McLean, who provided technical and secretarial support for the PSC-based team.

The Family Centre is very appreciative of Elizabeth Rowe’s substantial contribution to the overall editing of this monograph. They are also very grateful to Lynn Barlow for her eye for detail and extensive labours in formatting the entire monograph and assisting the research, editing and administrative work of this project. The Family Centre further wishes to acknowledge Warihi Campbell, Flora Tuhaka, Tangihaere Walker, Taimalieutu Kiwi Tamasese and Tafaoimalo Loudeen Parsons, all of whom facilitated the gathering of important stakeholder information for the development of this survey. As noted in the previous monograph, it was with great sadness that we learned of the death of Flora Tuhaka on 15th September 2008. Her contribution to the Family Centre and her community has been invaluable.

Richard Bedford, Co-Director, Population Studies Centre, The University of Waikato  
Charles Waldegrave, Co-Director, Family Centre Social Policy Research Unit.



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# Chapter 1: Introduction

Peggy Koopman-Boyden, Charles Waldegrave and Peter King

Most of us will spend the longest period in our lives being ‘middle-aged’, during which we will consider ourselves neither ‘young’ nor ‘old’. We will think of ourselves as being in the prime of our lives (at least in retrospect), yet some will be undergoing a midlife crisis. Middle-age is often seen as the peak of one’s life or career: when one’s family is all demanding, at the same time as one is setting up a business, or taking on greater responsibility in a job, or being recognised for one’s talents. Yet such expectations can be overwhelming for some. Most midlife adults are heavily engaged in pursuing achievement in their work and relationships, and this can contribute to their level of stress, as well as to their happiness and fulfilment.

For many people, none of these circumstances are consciously related to ageing. Instead, ageing is something that many people wish to ignore during midlife, either in the physical or social sense. The reality is, of course, that ageing in midlife is accompanied by the beginning of obvious physical limitations: a ‘best time’ in sport can no longer be attained, and optimal eyesight, hearing and joint flexibility is often challenged. Such physical changes can be accompanied by a reluctance to recognise the indicators, or a willingness to adapt and compensate. Ironically, with the advances of medical science, physical training, cosmetics and diet, many of today’s middle-aged, even while recognising their increasing age, continue to consider their bodies as machines and deny the impact of ageing.

Socially, ageing in midlife usually brings with it increasing complexity in roles and responsibilities where, for instance, parental roles become grandparental, marital relationships may end and be re-formed, employee roles may become senior management or redundancy, and community involvement may be non-existent or entail leadership and wider responsibilities.

Such complications of everyday living and responsibilities allow little time for long-term planning for one’s older years and retirement. Yet the reality for most people is the increasing likelihood of a working life which is longer than in previous generations and a retirement of at least two decades.

Thus, ageing in midlife means not only dealing with the physical and social aspects of getting older, but also planning for one’s later years when work and immediate family commitments may not be such a central focus. How to ‘enhance ageing in the middle years’ becomes the critical issue.

This research programme aims to document the findings of a range of social and economic indicators for this age-group (40 to 64 years), and to investigate their relationship with wellbeing. As the age group next to move into older life in very large numbers, their circumstances, decisions and preparation for their later years are important to understand.

## **1. The Social Context of Ageing among Midlife New Zealanders**

Much of the overseas research highlights the diverse ways in which middle-aged people are influenced, both positively and negatively, by their experiences in the areas of work, family, and community. A recurrent theme in research of those in midlife is that individuals are significant contributors to their family, community, and workplace, as well as being influenced by what is occurring in these areas. Age, gender and socioeconomic status provide meaningful frameworks for interpreting such variation, along with cohort differences (Brim, Ryff & Kessler, 2004).



It is therefore important to understand the background of the current midlifers, here defined as those aged 40-64 years. Respondents in the 2008 cohort are the survivors of those born between 1944 and 1968 in New Zealand, along with those who have migrated to New Zealand and are currently in the age-group. In the 2006 Census there were 1,273,000 people aged 40-64 years; 621,822 males and 651,216 females. Within this age-group, the 2006 Census shows that 68.5%<sup>1</sup> were of Pakeha/European ethnicity, 10.2% Māori, 4.3 Pacific Islander, and 14.1% 'other' (Statistics New Zealand, 2007).

The older members of this cohort, the baby boomers, were born immediately after World War II, and will remember times of high employment, high (European) migration to New Zealand and a prosperous economy. Migration was characterised by the movement of Māori from rural areas to the cities, as well as country to country migration (Barcham, 2004). The protest movements of the 1960s and 1970s, and the questioning of institutions, contributed to New Zealand carving out its own identity from the British mother country, alongside a renaissance of literature, art, and Maoritanga. Prosperity and education led many to travel abroad and return, helping New Zealand to move from an insular focus to a more cosmopolitan one (King, 2003).

The younger members of the cohort, the so-called 'X' generation (Gen X: born during the 1960s and 1970s), grew up during the 1980s, a period of market liberalisation, with periods of high unemployment and a comparative loss of prosperity (Belich, 2001). Though not as savvy with digital technology as Gen Y to follow, Gen X entered the digital revolution with greater confidence, skill and familiarity than the boomers before them. They also experienced the considerable social liberalisation of the 1980s, with more women participating in the labour market and gaining more senior positions, greater use of day care and early childhood education and increased rates of divorce (Statistics New Zealand, 2004). This was the period when the Treaty of Waitangi gained widespread prominence and gained legal rights and recognition that had been denied since its signing (Hayward, 1994).

Many stereotypical roles changed over the adult life of those in midlife. The women's movement challenged the ascribed gender roles in society and debated labour market equality, the prevalence of violence to women and children, the sharing of child raising and household domestic work and the right for women to control their own fertility (King, 2003; Davey, 1993; Barber, 1989). Māori became more active in claiming their roles and rights as 'tangata whenua' (the indigenous people of the land) (King, 2003; Belich, 2001) and did so very successfully. These two movements have radically changed many of the stereotypical assumptions about participation, socialisation and human rights in civil society.

The first baby boomers entered the labour market as it began to wane during the late 1960s and early 70s, and all midlifers were impacted by the liberalisation of the financial and labour markets in the late 1980s and early 1990s. Disproportionately large numbers of Māori and Pacific workers in manual jobs were made redundant during this period. Income support through the benefit system was reduced substantially as a result of the 1991 Budget (Boston & Dalziel, 1992; Waldegrave, 1998). Employer/employee relationships moved from largely predictable associations to a more liberal agenda characterised by greater redundancy, the evolution of consultancies, a plethora of contracts and multiple career changes (Bollard, 1994; Castles, 1996).

More recently in the new millennium, unemployment in New Zealand has been reduced to one of the lowest in OECD countries. Although this has led to higher living standards, it has done little to increase the country's comparative economic standing with other countries. During this same period, important pieces of social legislation have been passed to reduce child poverty (Working for Families), introduce paid parental leave, provide affordable income-related rents on state houses and

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<sup>1</sup> It is very likely that this figure underestimates the numbers of Pakeha/European because the category 'New Zealander' (introduced to the 2006 census for the first time) recorded 14.0 percent of the population. It is probable that many of those people were Pakeha/European.

continue settlements with hapu and iwi under the Treaty of Waitangi, for example (Waldegrave, Stephens & King, 2003; Belgrave, Kawharu & Williams, 2005).

The oldest midlifers are about to enter “official” old age in 2011, and each year after that many will join them, taking up their entitlement to New Zealand superannuation as they do so. The midlife cohorts, 40 to 64 years, will shrink only a little as a proportion of the New Zealand population, from 32 percent to 30 percent between now and the 2050s (Statistics New Zealand, 2009). This is in marked contrast to the older cohorts, who are expected to double from a little over 12 percent to around 25 percent of the population over the same period.

This massive demographic shift, occasioned by the sheer numbers of baby boomers, raises serious questions about the ways in which people in midlife are prepared for, and actively plan for, their later years. The place of physical activity, the maintenance of cognitive function, and active participation in social interaction play a significant role in health and wellbeing in later life (Schnor, Scharling & Jensen, 2003; Marmot & Wilkinson, 2006). The importance for older people of adequate and affordable housing, economic security and an ability to continue to participate in the labour market are increasingly recognised, as many people live longer and healthier lives (Disney & Whitehouse 2002; Scharf, et al., 2007; Waldegrave & Cameron, 2009).

This research was developed to explore the behaviour and experiences of midlife New Zealanders in their own right, but also to help us understand how well prepared they are to live well in their older years. It inquires into the social and economic behaviour that is known to enhance wellbeing and quality of life, to measure responses and assess their associations with other predisposing factors. The Survey took place during the first 6 months, January to June, of 2008, which was the period immediately prior to the economic recession that gained momentum during the latter part of 2008.

## **2. Scope and Funding of the Research Programme**

This research programme on Enhancing Wellbeing in an Ageing Society (EWAS) was funded by the New Zealand Foundation for Research Science and Technology (FRST). It began on 1 February 2004 and was funded for almost six years, until 30 September 2009. The research programme was undertaken by a partnership of the Population Studies Centre at the University of Waikato and the Family Centre Social Policy Research Unit in Lower Hutt, Wellington.

The aim of the research was to “*provide the understanding that is essential for policy formulation and the delivery of services for enhancing wellbeing in an ageing New Zealand society*”. The programme’s four objectives were to:

1. Effectively expand the current knowledge base of ageing and wellbeing
2. Explore new knowledge of New Zealand’s future older population and their expected transitions to older age
3. Explore new knowledge that contributes a deeper understanding of the perspectives and experiences of older people, and their transactions with kin and non-kin
4. Develop knowledge transfer and applications for a range of stakeholders and end-users including service providers and policy makers.

The research programme included two large scale national random sample surveys of independent and semi-independent New Zealanders<sup>2</sup> between the ages of 65 and 84 years, and between 40 and 64 years. The publication *Enhancing Wellbeing in an Ageing Society* (Koopman-Boyden & Waldegrave (Eds), 2009) has already documented the initial results from the survey of the 65-84 year-old New Zealanders. This publication presents the first results of the 40-64 year-old survey.

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<sup>2</sup> Independent living usually involves living with others or alone, without relying on any outside assistance; semi-independent living usually involves living with others or alone, with some outside assistance.

The research also involved qualitative methods, including a range of focus groups, in-depth interviews and seven case studies (<http://www.ewas.net.nz>). The perspectives of stakeholder groups and key end-users were used in the research design of the survey questionnaire.

As with the survey of the 65-84 year-olds, this part of the research was specifically designed to generate new knowledge that:

- (a) contributes to a deeper understanding of how the perceptions and aspirations of the elderly, and their interactions and transactions with culturally diverse communities of kin, friends and neighbours contribute to their wellbeing; and
- (b) aids policy relating to the balance of government, community and familial support for older people (FRST contract UOWX0309).

### **3. Theoretical Background<sup>3</sup>**

From its inception, the Enhancing Wellbeing in an Ageing Society research project has been informed by a clear focus upon the social dimensions of ageing and wellbeing. While biological processes underlie the physical ageing of people's bodies, ageing occurs in a social context, and the biological and social dimensions of human life influence each other. This study takes ageing as a social construct alongside its status as a biological given. It focuses firstly on the ways ageing impacts on people and their wellbeing, and secondly on the impact of this process on society. Acknowledging 'ageing' as a social construct allows the societal and personal issues associated with population ageing to be addressed through social policy. The location of ageing within a wider social context requires the question of wellbeing and its enhancement to be looked at not only in terms of older people as they age, but also the impact of an ageing society on members of the younger and midlife generations. The latter is the particular focus of this monograph.

The underlying view of this study – that wellbeing is inextricably linked to social context – is concisely put by Manderson (2005:12): "Wellbeing is not the state of individual bodies but of bodies in society," and "wellbeing includes more than physical and mental health: it incorporates a sense of satisfaction, contentment, personal fulfilment and existential calm; much more so than health, it is a social construct. Accordingly, it can be redefined, refined and reinterpreted at any place and time" (Manderson 2005:4).

The broad, socially-based approach to understanding ageing and wellbeing applied in this research is supported by a theoretical framework that locates the bases of wellbeing in the social, economic and cultural contexts of people's lives. Such a framework takes into account people's feelings of satisfaction and their location and functioning in society, and incorporates considerations of social structure (the organisation of institutions and relationships in society that tend to place limits on people's freedom of action) and social agency (the ability of people to act with some freedom and control, within the constraints of social structure). The framework was developed during the preparatory literature review of wellbeing, and the associated debates about the sources and bases of wellbeing (King & Waldegrave, 2009; King, 2007). Those debates usually concern the hedonic and eudaimonic approaches to wellbeing. The hedonic approach focuses upon people's subjective experience of pleasure or satisfaction, while the eudaimonic approach ranges more broadly to consider the social, economic and material resources available to people and, more importantly, the things that people are able to do with those resources.

The review found that both the hedonic and eudaimonic approaches had relative merits. It was decided that both would be incorporated in the EWAS research programme by measuring satisfaction with life (hedonic wellbeing) and selected areas of capability (eudaimonic wellbeing).

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<sup>3</sup> The reader is referred to King and Waldegrave (2009) and King (2007) for further detail and discussion of the theoretical background to the research.. This section provides a brief synopsis of the fuller outline of the theoretical approach.

Subjective wellbeing includes people's emotional responses, level of satisfaction with the domain (or domain satisfaction) and global judgements of life satisfaction (Diener et al., 1999). Psychological research into subjective wellbeing investigates the balance between positive and negative mood (or affect), and life satisfaction (Keyes, Shmotkin & Ryff, 2002; Ryan & Deci, 2001). Subjective wellbeing is said to exist when a subject experiences life satisfaction, the presence of a positive mood and the absence of a negative mood (Ryan & Deci, 2001). With its emphasis on positive mood, subjective wellbeing is linked to the hedonic view of wellbeing, and research in the field of hedonic psychology often uses assessments of subjective wellbeing (Ryan & Deci, 2001).

Measures of subjective wellbeing are obtained through self-reports, as people are asked to evaluate their lives as a whole or their satisfaction with a particular domain. These measures of subjective wellbeing provide an important addition to economic measures of wellbeing, because economic growth does not necessarily lead to life satisfaction (Diener & Seligman, 2004).

“As societies grow wealthy, however, differences in well-being are less frequently due to income, and are more frequently due to factors such as social relationships and enjoyment at work” (Diener & Seligman, 2004:1).

The eudaimonic approach, particularly Sen's capabilities framework, is consistent with the broad, socially based, view of wellbeing upon which the conceptualisation of this study is based. Sen developed his capabilities approach from a critique of the desires-based and income/consumption-based approaches to wellbeing, in which he argues that neither engages the essence of wellbeing (Martins, 2006). This is so because income/consumption-based approaches focus upon the means to wellbeing rather than “actual living that people manage to achieve” with the means available to them (Sen, 1999:73), while desires-based approaches overlook the ability of people to adjust their subjective satisfaction to changing material conditions (Sen, 1999; Martins, 2006; Clark & Gough, 2005) – a positive bias that Cummins (2005) argues is necessary for normal functioning. The essence of the capabilities approach is that people achieve wellbeing through their possession of capabilities that enable their active engagement with life and the application of their skills, abilities, knowledge and other resources to achieving their self-defined goals. Freedom to define and pursue these goals is a central requirement.

The capabilities approach has formed the conceptual basis of the theoretical framework, along with Doyal and Gough's complementary needs based approach (based on human wellbeing and participation in a chosen form of life) (Doyal & Gough 1991; Gough, 2003). Subjective measures that complement Sen's emphasis on the importance of human freedom (Sen, 1999) were included to balance the otherwise objective, material emphasis of the capabilities approach. This has resulted in a theory driven approach to the survey questionnaire construction, in which the selection of the domains of wellbeing was justified by theoretically informed assumptions (supported by the research literature and consultation with stakeholders) about the capabilities, functionings, instrumental freedoms and needs that support the achievement of wellbeing.

While Sen has not specified or endorsed a list of capabilities as objectively correct (Clark & Gough, 2005:51), others have proposed lists of capabilities based on theoretical considerations (Nussbaum 2005:41), community stakeholder engagement and consultation (Clark & Gough, 2005).

For the purposes of this research, the ten domains of wellbeing adopted by the New Zealand Ministry of Social Development (2008) in its social wellbeing research provided a useful domain structure for this study that is consistent with the capability domains proposed by Nussbaum (2005), Clark and Gough (2005), and others:

- Health
- Knowledge and Skills
- Paid Work
- Economic Standard of Living
- Civil and Political Rights
- Leisure and Recreation
- Physical Environment
- Safety
- Social Connectedness
- Cultural Identity.

The ten domains are themselves examples of stakeholder engagement in the research process, as all were identified through public consultation, nine through the work of the Royal Commission on Social Policy (1988), and the tenth (leisure and recreation) through a separate public consultation process (Smith, 2004). Taken together, these domains, with some changes of emphasis within them,<sup>4</sup> and the substitution of living arrangements for physical environment, are consistent with the areas of capabilities, needs, instrumental freedoms, and satisfaction with life, as just discussed.

The survey questionnaire was developed with reference to questionnaires of wider studies of wellbeing and of ageing. It reflects both the subjective and capabilities approaches. The questionnaire was also informed by consultation with stakeholders (see Waldegrave, 2006), which emphasised four key areas: access to activities, services and support, and health, culture and family, areas which are also listed by Nussbaum (2005), Clark and Gough (2005) and other writers. The stakeholders emphasised living better and living well, participating in and contributing to everyday life in their homes, families, communities and being satisfied with their lives, indicating a positive orientation towards wellbeing.

#### **4. Methodological Background<sup>5</sup>**

The survey of the 40-64 year-olds was undertaken with the same methodology as the survey of the 65-84 year-olds. The following sections detail the sample and data collection, the response rate, characteristics of the sample, the research instrument, stakeholder consultation, scales and indices, piloting the questionnaire, storage and confidentiality of the information and finally data cleaning and variable construction (including data weighting). Full details on some of the scales and indices are included in Appendix Two.

##### *4.1 Sample and Data Collection*

Under Objectives 2 and 3, the research programme (Contract 8938-SPCL-UOW 2003) funded by the Foundation for Research, Science and Technology was contracted to design two nation-wide surveys of non-institutionalised respondents, with the first of these samples aged 65-84 years, and the second aged 40-64 years. For both samples, the following procedures were used.

A random sample of landline telephone numbers over the whole of New Zealand was provided by Yellow Pages Data Solutions ([www.yellowpagesgroup.co.nz](http://www.yellowpagesgroup.co.nz)) from the electronic white pages, and potential respondents were phoned using Computer Assisted Telephone Interviewing (CATI). The CATI survey was undertaken by the University of Waikato's Department of Societies and Cultures. The CATI interviews of the 40-64 year-olds were conducted over the period late January 2008 - June 2008.<sup>6</sup>

<sup>4</sup> The ten domains of the Social Report provided the base structure for developing the questionnaire and analysing the results. However, another domain, that of 'Religion' which is common to a number of international studies, was added. The names of some of the domain areas were also changed to reflect the EWAS study.

<sup>5</sup> The reader is referred to Koopman-Boyden and Waldegrave (2009) for further detail and discussion of the methodological background to the research.

<sup>6</sup> For a discussion of the details of the CATI and survey methodology see Cochrane, 2009.

Respondents to the initial phone call were screened for age and residency. Those included in the sample were those aged 40-64 years, and living independently or semi-independently.<sup>7</sup> Those of the appropriate age, but living in a rest home or other institution were excluded.

The phone numbers were called by interviewers trained to administer the questionnaire. The numbers were called at three different times during the day: morning (9.30am – 12.20pm), afternoon (2pm – 4.50pm), and evening (6pm - 8.45pm) Monday to Thursday. A series of screening questions filtered out people not in the 40-64 year age-group, and those of the age-group who did not live in privately owned dwellings. Potential respondents were also asked about their time availability, and a different time for the interview was negotiated where necessary. Each randomly generated telephone number was called up to five times to get an initial contact. In order to randomise the person selected to respond within the household, interviewers asked to speak to the person who was in the eligible age-group and who had the most recent birthday. Consent from the respondents was obtained verbally by the interviewer administering the survey, after the purpose of the survey was explained and the assurance of confidentiality had been given. Those who agreed to participate were also advised that they were able to withdraw at any stage during the survey. The survey did not seek any identification information (names, addresses etc) so that the respondents' identity and location would remain anonymous.<sup>8</sup>

#### 4.2 Response Rate

The response rate is probably the best known of all measures associated with survey based research with, perhaps wrongly, the overall credibility of a survey frequently being judged by this measure. In general terms the response rate is defined as “the number of complete interviews with reporting units divided by the number of eligible reporting units in the sample” (American Association for Public Opinion Research, 2008: 34). However there are a number of ways in which this seemingly simple formulation can be operationalised.<sup>9</sup>

The response rate for the 40-64 year-old survey, 2008, is calculated using Equation 1.1 below

Equation 1.1

$$RR = \frac{R}{(R + RIS + EP * (REF + NC))}$$

Where RR = the response rate,

R = Number of responses

RIS = Refusals known to be aged 40-64 years

EP = Estimated proportion of refusals, whose eligibility is unknown, who would be eligible

REF = Refusals with eligibility unknown

NC = Non-contact.

The inclusion of the term EP allows for the fact that some of those who refused to participate and whose eligibility could not be ascertained would have in fact been eligible to participate in the survey. This is also true for phone numbers where no contact could be made. In this case, EP is set equal to the proportion in the 2006 Census of Population and Dwellings of the usually resident population aged 15 or over who were aged between 40-64 years at the time of the Census. Some 3,270,342 persons were aged over 15 years, while 1,273,000 were aged 40-64 years at the time of the 2006 Census. Hence the proportion EP is approximately 39 percent. Table 1.1 shows the respective values for the variables in Equation 1.1.

<sup>7</sup>Independent living usually involves living with others or alone, without relying on any outside assistance; semi-independent living usually involves living with others or alone, with some outside assistance.

<sup>8</sup>For a discussion on the process of administering the survey see Cochrane, 2009.

<sup>9</sup>For a fuller discussion of the ways of calculating the response rate, and details on the phone numbers and phone calls made, see Cochrane, 2009.

Inserting the values from Table 1.1 into Equation 1.1 yields a response rate of 27 percent.

Baruch (1999: 434) proposes that a reasonable test of the adequacy of a response rate would be that it lies within 1 standard deviation (SD) of the average response rate for the behavioural sciences. Response rates outside this range require explanation as to the reasons why such a deviation has occurred. In operational terms he suggests that this means that a response rate of 60 percent +/- 20 percent be considered normal for most populations and purposes. Taking the response rate for this survey, 27 percent, and allowing for the ongoing fall in response rates since 1999,<sup>10</sup> it would seem that the project has achieved a response rate at the low end of the range consistent with the normal level attained in the literature.

Table 1.1  
*Values of the Variables listed in Equation 1.1*

| Variable    | Description  | N    |
|-------------|--|------|
| R           | Complete   | 1958 |
| RIS         | Schedule Call-back, Terminated Early, Refused in sample                                | 1490 |
| EP          | Estimated proportion of refusals, whose eligibility is unknown, who would be eligible, | 0.39 |
| EP*(REF+NC) | Estimated number of refusals, whose eligibility is unknown, who would be eligible,     | 3730 |
| REF         | Refused, Language/Deaf,  | 4261 |
| NC          | Answering Machine, Non-working, Busy, No Answer  | 5302 |

Source: Cochrane 2009:7.

#### 4.3 Characteristics of the Sample

Figure 1.1 shows the expected and actual distribution of respondents by age and gender.<sup>11</sup> The expected number of responses is simply the proportion of persons aged 15 years and over in that age group and gender, derived from the 2006 Census of Population and Dwellings, multiplied by the total number of responses (1,958). As can be seen from this figure, the number of female respondents is higher than expected, and number of male respondents lower than expected, across all age groups and in total. This would suggest that a modest re-weighting of respondents should be undertaken to reflect the under representation of males.

<sup>10</sup> For instance Curtin, Presser & Singer (2005) report a decline in response rates of around 30 percent for the University of Michigan's Survey of Consumer attitudes in the period 1996-2003.

<sup>11</sup> The data used in the construction of this figure is available in Cochrane, 2009: Appendix 3.

Figure 1.1  
*Expected and Actual Responses by 5 year Age Group and Gender*

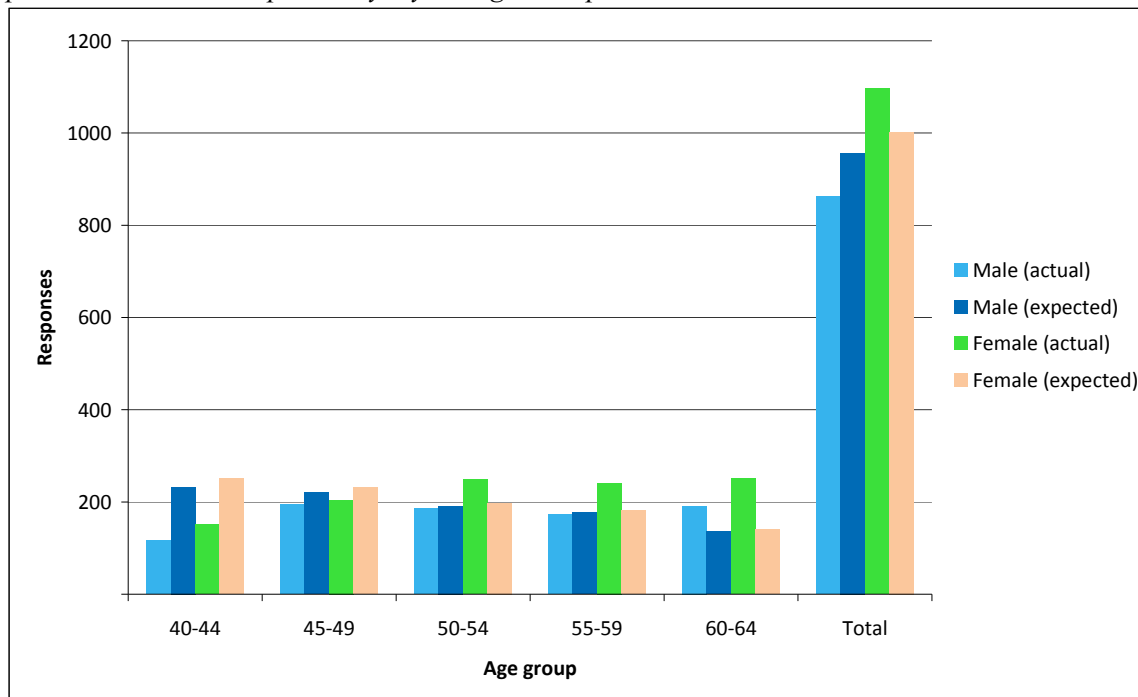
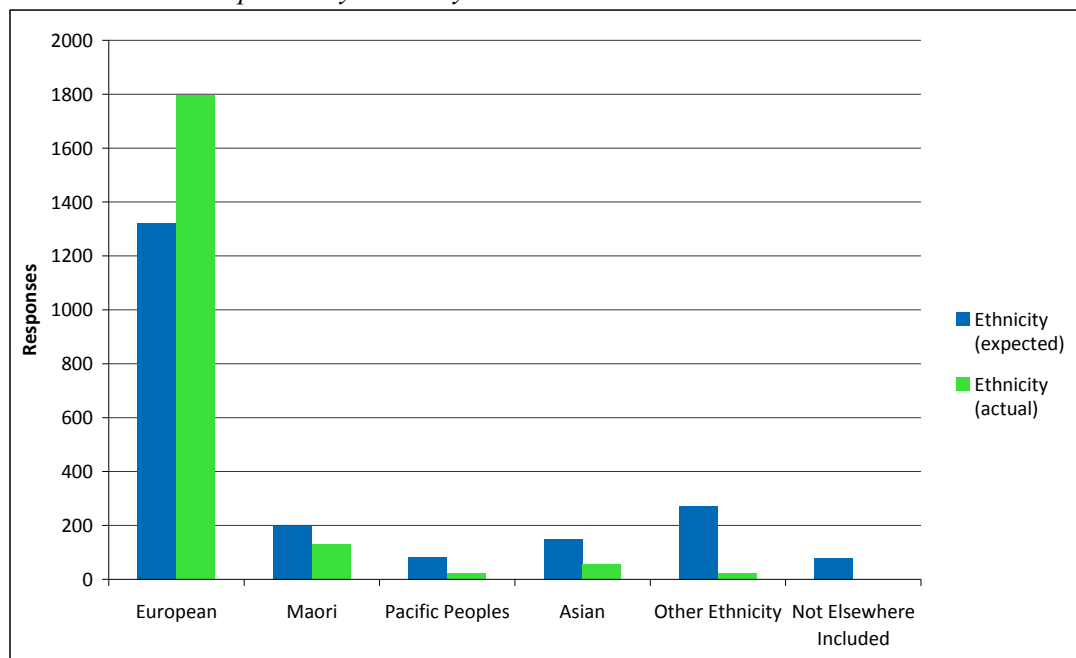


Figure 1.2 shows the expected and actual distribution of respondents by ethnicity.<sup>12</sup>

Figure 1.2  
*Expected and Actual Responses by Ethnicity*



The expected number of responses in an ethnic category is simply the proportion of persons aged 40 to 64 years in that ethnicity, derived from the 2006 Census of Population and Dwellings, multiplied by the total number of responses to the ethnicity question (2,033). Note that this is the total number of

<sup>12</sup> The data used in the construction of this figure is available in Cochrane, 2009: Appendix 4.



responses to the ethnicity question, not the total number of persons who responded. For example, a person who indicated that they identified with both Māori and European ethnicities would be counted twice, once as Māori and once as European. Clearly non-European ethnicities are under-represented in this sample, which is to be expected given that the survey was conducted by telephone<sup>13</sup> and in English.

#### *4.4 Research Instrument and Consultation*

The purpose of the survey was to provide data for the analysis of wellbeing and its causes with reference to the ten domains set out in the Ministry of Social Development's (2008) Social Report, as well as for the analysis of life history, cross-sectional and cohort findings. The survey instrument was developed after extensive consultation between the research partners, the University of Waikato and the Family Centre Social Policy Research Unit and a considerable number of stakeholders contacted by the Family Centre.

Several of the questions (such as those in the health module) were drawn from internationally used research instruments. Further questions were developed with reference to scales and indices used in the literature, while others have been tested extensively in surveys administered by research team members on other projects. Many of the questions were discussed with older relatives, friends and colleagues of the research team to check for their utility and acceptability.

##### *4.4.1 Stakeholder Consultation*

A distinguishing feature of the EWAS research programme was the involvement of stakeholders and end users. Because the total research programme was focussed on ageing, and the initial survey was of New Zealanders aged between 65 and 84 years, the stakeholders consulted were either organisations of older people or those that served older people.<sup>14</sup> Many of the questions that were developed in this earlier survey were applied to the midlife group in order to compare responses and to gain a clearer idea of how prepared members of the cohort were, who were about to enter the 65 years plus age group.

The stakeholders received a summary description of the research programmes, and in focus groups, as individuals, or in writing, they were asked three questions:

- Given the scope of this programme of research, what critical areas of focus would provide useful information for your organisation?
- What specific questions in either the survey or the focus group interviews would extract the sort of information your organisation would find useful?
- Please offer any suggestions or advice that you think will enhance this research programme and make it more beneficial to your organisation, other organisations, and the wellbeing of older people in New Zealand.

Full coverage and analysis of the responses from the various groups and individuals is set out in Waldegrave (2006), and a summary of the responses is provided in Table 1.2. The numbers in the table represent the number of stakeholder responses to each issue, where the numeral "1" indicates that only one group in the stakeholder category identified this area, "2" indicates that more than one but not all groups in this category identified this area, and "3" indicates that every group in the stakeholder category identified this area.

As Table 1.2 shows, the issues referred to most consistently are access to services, activities and support, health, culture and family. The emphasis overall was on living better and living well. Stakeholders asked for information on services, activities and support to enhance the quality and value of neighbourhoods, so that older people could feel valued, safe and be seen as contributors. Rather than focusing on frailty and sickness, the health issues raised by stakeholders were mobility, sight,

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<sup>13</sup> Census 2006 data indicates that Maori and Pacific households' access to telephones is some 3-4 percentage points less than European households.

<sup>14</sup> For a list of the organisations, see Waldegrave 2006

and hearing, to enable ongoing independence and participation in families and communities. Stakeholders were also interested in issues of wellbeing, fulfilment and inclusion in participating in their culture and family (Waldegrave, 2006).

Table 1.2  
*Categorised Stakeholder Responses by Stakeholder Groupings*

Categorised Stakeholder Responses by Stakeholder Groupings
 

Issues
 

| Stakeholders                                      | Access to Services Activities /Support | Housing | Transport | Education/ Employment | Income/Assets | Health | Elder Abuse | Culture | Family |
|---|--|---------|-----------|-----------------------|---------------|--------|-------------|---------|--------|
| National NGO's                                    | 3                                      | 1       | 2         | 2                     | 2             | 2      | 2           | 2       | 2      |
| Māori Groups                                      | 2                                      | 2       |           |                       | 1             | 2      | 2           | 3       | 3      |
| Pacific Island Groups                             | 3                                      | 2       |           | 3                     | 3             | 3      |             | 3       | 3      |
| Asian Groups                                      | 3                                      | 1       | 3         |                       |               | 3      |             | 3       | 3      |
| Government and Quasi Government Groups            | 2                                      | 2       |           | 2                     | 2             | 2      | 2           | 2       | 3      |
| NZ Institute for Research on Ageing <sup>15</sup> | □                                      | □       | □         | □                     | □             | □      | □           | □       | □      |
| Rural Groups                                      | 2                                      |         | 2         | 2                     | 1             | 2      |             |         | 2      |

Legend

3 every group in the stakeholder category identified this area

2 more than one but not all groups in this category identified this area

1 only one group in the stakeholder category identified this area -

Source: Waldegrave (2006): 21

#### 4.5 Scales and Indices

The majority of the questions in the questionnaire for the 40-64 year-olds had been tested extensively in surveys administered by research team members on other projects, while other questions were developed with reference to scales and indices used in the New Zealand Census or in the international literature. These were the Wellbeing Scales (World Value Survey question on Wellbeing and the World Health Organisation Quality of Life indicator), the Health Scale SF-12 and the De Jong Gierveld Loneliness Scale. The Wellbeing and Quality of Life indices are described below, as they are referred to in every chapter of this monograph. The Health Scale SF-12 and De Jong Gierveld Loneliness Scale are detailed in the chapters in which they appear, and in Appendix Two.

##### 4.5.1 Wellbeing Scales

A review of the instruments measuring wellbeing revealed that no agreement exists on a number of dimensions: the number of questions (single or multiple); the level of measurement (general or specific areas of wellbeing); the relative importance of individual domains; the need for both objective and subjective measurement (see previous section on Theoretical Background); or the extent of comparability with other recent indicators of wellbeing (Koopman-Boyden, 2007; Hird, 2003).

On the basis of respondent time availability and international validation, it was decided to measure an individual's overall wellbeing, with the individual taking into account both their objective circumstances and subjective experience.

<sup>15</sup> NZ Institute for Research on Ageing is the only group in its category.

It was decided to include two measurements of overall wellbeing as a way of ensuring that the interview yielded a reliable measure of wellbeing. Each measure is part of a well used international scale, and each comprises a single question. The two measurements chosen were the wellbeing question from The World Values Survey (WVS), and the World Health Organisation's Quality of Life indicator (WHOQOL), both described below.

The WVS question was placed towards the beginning of the questionnaire, and the WHOQOL at the end. Given the length of the questionnaire the possibility of respondent fatigue was a consideration - there were advantages of having the wellbeing question early in the questionnaire in anticipation of respondent dropout during the interview, and there were also advantages of having it after the respondents had been asked questions on specific types of wellbeing (e.g. health, work), so that the concept of wellbeing was outlined for the respondents. The placement of the two measures at different stages of the interview was a means of allowing for both contingencies. It is intended that the responses to the two measures will be compared in detail in a later publication.

#### 4.5.2 *Wellbeing Scale – The World Values Survey (WVS) question on Wellbeing*

The World Values Survey question measuring wellbeing was inserted towards the beginning of the questionnaire. The question was:

*“Q 64 All things considered, how satisfied are you with your life as a whole these days?”*

The respondents provided a response on a “very satisfied” to “very dissatisfied” continuum, measured on a 5 point scale.

This question forms part of the World Values Survey questionnaire, first used in the 1990-1993 survey of 43 societies (excluding New Zealand), and more latterly in the 1998 and 2005 surveys in 88 countries (including New Zealand). The wellbeing question has been included in each of the surveys (Inglehart, Basanez & Moreno, 1998). In most cases, the data are freely available, and provide a useful time-period comparison with the present study.

The World Values question is similar to that asked as the WHOQOL indicator, but has the added value of comparative analysis.

#### 4.5.3 *Wellbeing Scale – World Health Organisation Quality of Life indicator (WHOQOL)*

The World Health Organisation Quality of Life indicator, also asked as a single question, was included at the end of the questionnaire as a way of concluding the interview, and also as a further way of checking the respondent's overall wellbeing. The question was:

*“Q 267 Thinking back over the questions I have asked you, can you tell me overall: How would you rate your quality of life?”*

Again, the respondents were asked to provide a response on a “very satisfied” to “very dissatisfied” continuum, measured on a 5 point scale.

While these measurements of wellbeing used a single question at the beginning and end of the interview, and specifically measured *overall* wellbeing, a further question was asked about wellbeing in each of the domains of health, education, work, economic standard of living, entitlements and rights, participation in leisure and recreation activities, physical environment inside and outside the house, personal safety, contact with family, contact with other people, cultural identity and involvement. The question was:

*“Q 65 I am going to read you a list of topics to do with your satisfaction with life, or your wellbeing. Could you tell me whether you are satisfied or dissatisfied with each of them?”*

Later in the questionnaire respondents were asked again about their wellbeing in each domain, using a balance of objective and subjective measures, and using nationally and internationally comparative scales as much as possible.

Thus, the questionnaire included three levels of wellbeing measurements:

- a single question measuring the general area of wellbeing (asked at the beginning of the questionnaire, and again near the end)
- a single subjective measurement of wellbeing for each of the ten specific domains
- a series of objective and subjective measures in each of the ten specific domains of wellbeing.

#### *4.6 Piloting the Questionnaire*

A pilot survey of the questionnaire was conducted with 200 respondents selected from the telephone sample and interviewed through the CATI system between December 2007 and mid-January 2008. The pilot was not conducted during the immediate Christmas period. It was helpful in assessing the comprehension and format of the questions, as well as the duration of the interview. As a result, several questions were re-worded to improve their clarity and to ask them in a more appropriate style. With the pilot survey completed and questionnaire wording finalised, the main survey began in late January 2008 and was completed in June 2008 (see Cochrane, 2009:2-4).

#### *4.7 Storage and Confidentiality of Information*

During the survey process, a multilayered backup system was used to minimise the risk of failure of the data storage system. The administrator of the survey manually backed up each day's results on both the administrator's computer and a dedicated server at the University. These backups are encrypted and password protected. On completion of the survey, the master file was added to the automated backup system of the University and secured to the same standard as the University's own data.

A copy of the dataset is now stored indefinitely at the Population Studies Centre of the University of Waikato and at the Family Centre Social Policy Research Unit, where the files are locked or password protected and are accessible only to designated research staff and IT systems administration staff. Access to the data is restricted to researchers associated with the contracted research programme, or under any future contractual agreement. No information that can be used to identify particular respondents was collected during the interview, and the phone number is not recorded with the data relating to that interview.

#### *4.8 Data Cleaning and Variable Construction*

Following data collection, the raw data were cleaned and variables for analysis were constructed from survey responses by a team at the University of Waikato. During data cleaning, the survey responses were extensively cross-checked to identify and (where possible) re-code clearly inconsistent or invalid responses. Open-ended responses were also typically re-coded into categorical variables.

##### *4.8.1 Data Weighting*

As noted above, the data were collected using a random sample of landline telephone numbers. While this survey method is certainly random, the resulting sample is not necessarily representative of the population of people aged 40-64 years. A simple comparison of the age and gender distribution obtained from the survey and that from the 2007 Estimated Usually Resident Population (EURP) produced by Statistics New Zealand highlights significant differences between the two (see Figure 1.1 and Table 1.3).<sup>16</sup>

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<sup>16</sup> The 2007 Estimated Usually Resident Population is used as the comparator here for consistency with the earlier survey of those aged 65-84.

Table 1.3

*Comparison of the Relative Frequencies from Statistics New Zealand 2007 Estimated Usually Resident Population (EURP) and the 2008 EWAS 40-64 year-old Survey (%)*

| Age   | EURP  |        |       | EWAS Survey |        |       |
|-------|-------|--------|-------|-------------|--------|-------|
|       | Male  | Female | Total | Male        | Female | Total |
| 40-44 | 11.46 | 12.28  | 23.74 | 5.98        | 7.71   | 13.69 |
| 45-49 | 11.34 | 11.94  | 23.28 | 9.96        | 10.42  | 20.38 |
| 50-54 | 9.90  | 10.22  | 20.12 | 9.50        | 12.72  | 22.22 |
| 55-59 | 8.95  | 9.17   | 18.12 | 8.84        | 12.31  | 21.14 |
| 60-64 | 7.25  | 7.48   | 14.74 | 9.75        | 12.82  | 22.57 |

Males were under-represented in the realised sample, particularly for the 40-44 and 45-49 age groups. Females were over-represented among respondents between the ages of 50 and 64 years, but under-represented among those aged 40-49 years. The realised sample was not totally representative of the underlying population, and this was true for the distribution of both age and gender.

A decision was therefore made to weight the sample according to age and gender to enhance the national representativeness of the realised sample. Each observation was assigned an analytical weight, which was the ratio of the relative frequency of the age and gender of the given observation in the Statistics New Zealand 2007 Estimated Usually Resident Population (EURP) to the relative frequency of the age and gender of the given observation in the 2008 EWAS survey.<sup>17</sup> In this way, observations that were over-represented within the EWAS sample relative to the Estimated Usually Resident Population received less weight, and observations that were under-represented received greater weight in the analysis. This type of weighting procedure is best practice for dealing with disproportionate samples selected using a random procedure, and is described in most statistics or survey methodology texts, such as Rea and Parker (2005). Such weighting then allows accurate estimates to be made at the population level.

While such analytical weights can also account for ethnicity, in this case the sample was weighted purely on age and gender, but not ethnicity, for several reasons. Firstly, the ethnicity data from EURP is derived from the Census, and may not be directly comparable to that obtained from the EWAS survey because of definitional differences. The Census had a significant number of people with an ethnicity of “New Zealander” (as well as “European/NZ European”), compared with very few in the EWAS survey. These few survey observations would then receive a very large weighting in order to match with the EURP proportions. Secondly, among the 40-64 year-old age group being surveyed there was relatively little ethnic diversity, i.e. the relatively small numbers of Pacific (N=28, 1.3 percent of respondents) and Asian (N=67, 3.4 percent) ethnicity would mean that their results would have to be significantly re-weighted, potentially biasing the resulting analyses. This situation can be expected to change with many different ethnic groups being more numerous in future cohorts of midlife New Zealanders. Thirdly, in the EWAS survey data, age and gender were complete (that is, had no missing observations), while ethnicity was not. Of the 1,958 respondents to the survey, 5 refused to answer or didn’t know their ethnicity. Such missing data, though small, could add to the problems in determining the analytical weights given the small numbers of non Europeans and non-Māori.

Application of the weights so derived gives a sample that is representative of the population aged 40-64 years, with respect to age and gender. The results and analyses in Chapter 2 through to Chapter 11 are based on weighted data.

<sup>17</sup> Note that this is the same weighting scheme that was applied to the earlier survey of those aged 65 to 84. As with the earlier survey, weighting on the basis of ethnicity was not conducted. See Koopman-Boyden and Waldegrave (2009) for further details.

## **5. Coverage of the Monograph**

Each of the following chapters focuses on one of the ten domains of overall wellbeing, as set out in the model of wellbeing above, with the exception of chapter 11 which addresses both culture and religion.

In Chapters 2 to 11 the research literature and social context of the domains are reviewed and the research findings are presented about the indicators of each domain and the relationship with objective and subjective factors associated with the wellbeing of older people in New Zealand. For each indicator, key relationships are explored that include gender, age, marital status, educational qualifications, etc. Further relationships considered in each of these chapters are briefly described below.

Each chapter also includes comparisons of the research findings about the 40-64 year-olds with those of the 65-84 year-olds, previously documented in Koopman-Boyden and Waldegrave (2009).

Chapter 2, Health, by Ben Amey, Ian Pool, Michael P. Cameron and Suzan van der Pas, sets out the relationship between global self-rated health and wellbeing in this survey, compared with previous national surveys, and the relationship of global self-rated health with personal income, adequacy of money to meet everyday needs, employment status, highest educational attainment and perceptions about personal safety.

Chapter 3, Education, by Peggy Koopman-Boyden, documents the academic qualifications available to 40-64 year-olds in New Zealand during their schooling years in the 1950s, 60s and 70s, and the social context of this time. The schooling and educational qualifications gained by the 40-64 year-olds are then described, along with the relationship of wellbeing to education (measured by age when left school and age of highest qualification). The relationship of education with place of birth and technological uptake is also considered.

Chapter 4, Work, Retirement and Wellbeing, by Michael P. Cameron and Charles Waldegrave, summarises the lifetime work experiences of 40-64 year-olds, and discusses the changing context of work and retirement experienced by these New Zealanders. It also presents analyses of the association of work experiences with 'satisfaction with work' and with overall wellbeing, drawing comparisons with the earlier survey of those aged 65-84.

Chapter 5, Income, Assets, Living Standards and Housing, by Charles Waldegrave and Michael P. Cameron, assesses respondents' levels of income, wealth, living standards, poverty and patterns of housing tenure. It also explores the association of these factors with socio-demographic factors, and provides broad research evidence for policy formulation and service provision in these areas.

Chapter 6, Rights and Entitlements, by Peter King, considers midlife New Zealanders' expectations concerning support from family, access to adequate health care, financial comfort, residential care and support from the government and government agencies when they need it. Respondents' expectations are related to a range of demographic variables and also to their subjective wellbeing and their sense of loneliness.

Chapter 7, Leisure and Recreation, by Suzan van der Pas and Peggy Koopman-Boyden, describes the participation in leisure and recreation activities of middle-aged people, exploring the association with a number of socio-demographic characteristics, including health and living arrangements. It also examines the association of participation in leisure and recreation activities and 'satisfaction with leisure and recreation activities' with overall wellbeing, and compares the leisure and recreation activities of middle-aged people with older people.

Chapter 8, Living Arrangements, by Suzan van der Pas, provides a descriptive overview of middle-aged people's living arrangements, and identifies a number of aspects of the physical environment

which may impact on their ability to live in their community. It also examines the association of living arrangements, and 'satisfaction with physical environment' with overall wellbeing, and compares the living arrangements and physical environments of middle-aged people with older people.

Chapter 9, Safety, by Peter King, considers midlife New Zealanders' experiences and perceptions of their personal safety in their homes and neighbourhoods. These are related to a range of demographic variables and also to their participation in leisure activities, their subjective wellbeing or general satisfaction with life, and their loneliness.

Chapter 10, Social Connectedness, by Peggy Koopman-Boyden and Suzan van der Pas, assesses the dimensions of social connectedness among middle-aged people by investigating their social contacts, satisfaction with these contacts, and exchange of support, along with their level of community participation, and the association of these forms of social connectedness with wellbeing. It also considers several comparisons with older people.

Chapter 11, Culture and Religion, by Charles Waldegrave, explores the associations between midlife Māori and non-Māori regarding a number of important social indicators as well as cultural activities. Associations between faith and the religious practice of midlife New Zealanders with a range of social indicators, including subjective wellbeing, are also explored.

Chapter 12, Midlife and Wellbeing, by Charles Waldegrave and Peggy Koopman-Boyden, brings together the main findings of the research with respect to the overall wellbeing of the 40-64 year-olds in the survey. The relationships of age, gender, marital status and the ten domains (i.e. health, education, work, income, rights, leisure and recreation, living arrangements, safety, social connectedness, culture and religion) with their wellbeing are set out. The chapter also considers some of the policy implications of these relationships.

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# Chapter 2: Health and Wellbeing among Midlife New Zealanders

Ben Amey, Ian Pool, Michael P. Cameron and Suzan van der Pas

## 1. Health among the Middle-aged, 40-64 years: Meta-issues

As is true for many spheres of life, middle-age is a transition period in the health of people as they move across life-cycle stages. They enter midlife carrying some 40 years of exposure to health and other socio-economic and cultural experiences that might affect their health and wellbeing, both positively and negatively, in midlife and in old age. A classical example is cohort survivorship, as demonstrated in life-table data (Pool & Cheung, 2004, 2005). They will also have been exposed to 40 years or more of a continuing epidemiologic transition, in which the interplay between their own experiences, the evolving bio-medical technology (e.g. new chemotherapeutic, surgical and other treatments), health services and the wider social, nutritional and ambient environment, will have patterned aspects of their health.

The major changes in this midlife transition have seen consecutively increasing survival and a massive shift-share from communicable to non-communicable diseases as the major causes of morbidity and mortality. In the 19th century, the greatest force of mortality for both Māori and Pakeha was at youngest ages – this continued until after World War II for Māori – and from communicable causes; sequentially, the force moved to older and older ages, and non-communicable causes became the aetiological dominant (Pool et al., 2009).

In the 21st century, most of the members of birth cohorts into which midlife New Zealanders were born will still be alive not just at 45 years, but also at 65 years. Few will have experienced the death of a peer, which is why the rare death of a child, or of a young adult ‘boy-racer’, or a friend from something like an aneurysm or breast cancer, or an external cause (accident or violence), is so shocking. In the not too distant past this would have been more common.

However, by 84 years – the ages covered in an earlier monograph from the EWAS programme (Enhancing Wellbeing in an Ageing Society; see Pool, Amey et al., 2009, which elaborated on the issues discussed in this paragraph and those that follow in this introduction) – the metric will have changed very significantly. The survivors will have seen many of their compatriots die in early old age. The force of mortality has moved upwards to older ages, and for a narrower and narrower range of non-communicable causes.<sup>18</sup>

Of course, many middle-aged people suffer from illnesses, mostly due to non-communicable causes, some of them even life-threatening if not addressed, and many others will have minor disabilities such as the need for prescription glasses. However, only a minority will suffer physical health problems that impair their functionality significantly, one of the issues being analysed in this chapter. Moreover, some of the mental health problems that might have affected their daily living at teen and young adult ages will either have been resolved clinically, or at least handled in such a way that functional effects are minimised. In rating their personal health, therefore, the model that most respondents have in mind will be one of reasonably good health, for them and the overwhelming majority of their peers.

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<sup>18</sup> Of an original cohort of 100,000, in the 2005-07 New Zealand Official Period Life Tables, 95,823 of the men will be alive at 45 years, and 97,557 of the women; at 65 years the numbers have dropped, but are still very high: 85,747 and 90,464, respectively. However, by 85, the numbers will have been cut very significantly, especially among the males: only 37,245 of the men will have survived, and a bare half (51,680) of the women.

There is another dimension to this. Some respondents may also have adopted, or continued to maintain, exercise and nutritional regimes, and other strategies that are seen as favouring one's health at older ages. However, because of work pressures and other factors, many at middle-age will have health-related behaviours (e.g. work induced stress) that may have negative effects on their future survivorship chances. Many of these factors will be due to exogenous causes (the wider environment) rather than endogenous (personal behaviours). Whatever their stance and exposure to risk, on average the health status of New Zealand midlife cohorts is the highest ever for any period in our history; the life-table data (see footnote 19) are the most concise and definitive measure of this.

This does not hold true uniformly for all New Zealanders. There are sub-populations who have health statuses that fall below the modal pattern. There are, for example, ethnic differences. Among non-Māori, 97 percent of men will reach 40 years of age and 96 percent the age of 45, while 98 percent of women will reach ages 40 and 45 years. But this is true for only 94 percent (age 40) and 92 percent (45) of Māori men and 97 percent (40) and 96 percent (45) of Māori women. This gap is now small, although most noticeable for men, and falls much below historic ethnic differences in health status, even in very recent years.

Until recently, marked ethnic gaps were evident at all ages, even for children, but over the second half of the 20th century this was almost entirely eliminated across the life-cycle until people enter middle-ages, as the data just cited above for ages 40 and 45 years show (Pool, 1991; Blakely et al., 2005, 2008; Pool et al., 2009; Pool & Cheung, 2004, 2005).

But once New Zealanders enter middle-age, ethnic differences widen rapidly, so that a very significant gap for premature death still remains. In the 21st century, only 10 percent of non-Māori men and 7 percent of women will die between exact ages 40 and 65, that is, fail to survive midlife – 40-65 years; but Māori men will see 25 percent of the members of their cohort die, and women 18 percent.

Māori are passing through the intermediate phases of what is called a 'delayed epidemiologic transition' (Omran, 1982) by comparison with non-Māori (who are at the last phase), and this shows up today in their health experiences at midlife and old age. Thus, for Māori, in contrast with non-Māori, perceptions about their health status at midlife will be formed around the recognition that this is a life cycle stage in which loss of compatriots is already commonplace: at 75 years, non-Māori male cohorts will still have more survivors than did Māori male cohorts at 65 (Pool, 1991; Blakely et al., 2005, 2008; Pool et al., 2009). To add to this, cohort deterioration, when life-table survivorship probabilities for any cohort at a given age are lower than those for preceding cohorts, has also been reported in New Zealand (and elsewhere) even as recently as the 1990s (Pool & Cheung, 2004, 2005).

Māori and non-Māori perceptions about health were self-reported by respondents in the EWAS survey of 40-64 year-olds carried out in 2007-08, along with questions on other domains of wellbeing. In earlier work on the related survey for 65-84 years olds, data were presented only for the total population (Māori plus non-Māori) as there were few Māori at older ages (3.3 percent), a figure broadly in line with the structure of the elderly population. This meant that sampling error difficulties precluded separate analyses for Māori. However, for 40-64 year-olds the Māori sub-sample is larger (7 percent), so that data can be presented, but only for more general analyses. We have restricted our analysis here to tabulations with larger cell-sizes, as once N-way tabulation is taken too far, cell-sizes become small. Even with this restriction, confidence in the results is less than for the non-Māori sub-sample. Nevertheless, this line of research allows an additional dimension to our knowledge of Māori – non-Māori differentials, as will be discussed in the next section of this chapter.

This line of research, focusing on functionality rather than aetiologies (see below), is not a lesser alternative to bio-medical surveys: "Evaluation of one's own health condition... is an additional objective determinant of health status and associated socio-psychological attributes" (Sargent-Cox et al., 2008: 740). Such self-reported evaluations correlate well with levels of physical health measured by clinical and other procedures. Health has arguably the widest effect on overall wellbeing. It is

much more significant than being simply one, discrete, factor of wellbeing. It also is central to the policy debates concerning issues of ageing, longevity and welfare (see various papers in Boston & Davey (Eds), 2006).

Improving health is increasingly becoming the driver of demographic ageing itself. It is becoming more important as the older age-groups increase their share of the total population. Increasing longevity at older ages has been associated with two trends: (i) compression, where people retain health and function for a longer proportion of their life-span, and experience serious decline in mental and physical capabilities and health for a short period only at the end of their lives, and, paralleling this, (ii) a narrowing range of the causes of mortality, like cardiovascular diseases, cancers and stroke, for example (Pool, 1994). In turn, this has been brought about by a huge shift in patterns and levels of morbidity, also probably entailing compression by age and cause (Cheung, 1999, 2001 cited in a seminal paper by Cheung et al., 2005: 243; summarised in Robine, 2008). This can certainly be seen in longer health expectancies (Ministry of Health, 1999a), and decreases in reciprocal, “life expectancy with severe disability” (Cai & Lubitz, 2007). People in the midlife age groups carry these experiences forward as they head towards the older age-groups.

As we will see, these international trends show up in New Zealand. Moreover, our health data presented here confirm trends shown by national official surveys. We look at how middle-aged people view their health, in its own right and as an element of their overall wellbeing. We compare the middle-aged with the elderly reported upon earlier.

## 2. Māori and Non-Māori Health: Functionality and Survivorship

Before discussing the EWAS data an important comment must be made on the context of the EWAS survey data. This chapter deals with perceptions about health and functionality. Driving these two variables are complex mixes of cohort experiences and other factors that produce different outcomes for Māori and non-Māori. These are best summarised by the survivorship curves computed for Health Expectancies (HEs; Ministry of Health & Statistics New Zealand, 2008, 2009). Data for the relevant ages are given in Table 2.1, which shows the number of members out of an original birth cohort of 100,000, who will survive to a given age  $x$ , and while passing through ages  $x$  to  $x+5$  will be free of disabilities that could have affected their capacity to be independent.<sup>19</sup> Māori data may be subject to sampling error, although the sex difference at age 40, that reverses what is seen at adjacent ages, could be explained because of the physiological burden of childbearing (see Pool, 1991).

Table 2.1  
*Survival Curves, Māori and non-Māori by Sex, 2005-07*

| Exact Age (Years) | Males   |                 |             |                     | Females |                 |             |                     |
|-------------------|---------|-----------------|-------------|---------------------|---------|-----------------|-------------|---------------------|
|                   | Māori N | Māori ILE Years | Non-Māori N | Non-Māori ILE Years | Māori N | Māori ILE Years | Non-Māori N | Non-Māori ILE Years |
| 40                | 85,174  | 27              | 91,155      | 32                  | 85,007  | 28              | 90,199      | 33                  |
| 45                | 81,399  | 23              | 88,211      | 28                  | 81,695  | 24              | 86,883      | 29                  |
| 65                | 49,268  | 10              | 60,695      | 12                  | 57,621  | 11              | 62,768      | 13                  |
| 75                | 28,303  | 6               | 41,302      | 7                   | 31,864  | 6               | 43,770      | 7                   |

Source: Excel Working Tables accompanying Ministry of Health & Statistics New Zealand, 2009<sup>20</sup>

<sup>19</sup> These are from the mid-level HE disability category, Independent Life Expectancy (ILE). They show the interactive effects of surviving/failing to survive, and onset/exposure or not to an illness or accident that affects independence. They are  $L(x)$ -equivalent values, adjusted for survivorship to exact age  $x$ , using period life-table survival functions. This also allows an empirical assessment of the relative effects of functionality and survivorship.

<sup>20</sup> We thank Martin Tobias of the Ministry of Health for making these available to us. In Pool, Boddington et al. (2009; in press New Zealand Population Review) this is discussed in detail using period life-tables plus a range of other data. In a paper to PANZ 2009, Pool used cohort life-tables to provide a more exact picture.

The results in this table are very important for what follows in this chapter. Firstly, the ILEs vary by age and by gender. Secondly, the absolute differences between Māori and non-Māori vary by age: the differentials are wider at younger ages, in the ages we are discussing here, much narrower at older ages; relatively the differences are narrow at 40, but increase at 45 and 65, before dropping down again at 75. Thirdly, by contrast, the survival curves widen with increasing ages. This means that far more Māori than non-Māori face illness at younger ages – that is clear from any number of studies (for example Tobias et al., 2009) – thus having very different health experiences from non-Māori. Additionally, Table 2.1 shows that the ‘hardy’ or the lucky survive – to put this into Darwinian terms, so that by older ages the remaining Māori, a far smaller residual proportion of any cohort than is the case for non-Māori, have similar health experiences to non-Māori.

This has major health policy implications. Māori cohorts are more at risk at younger ages than are non-Māori, not only for period effects such as socio-economic disadvantage, but because of the experiences their cohorts carry forward with them. Our analysis of SF-12 data, an instrument described below, and discussed in far greater detail in an earlier paper (Pool, Amey et al., 2009), allows us to study this in some detail. Additionally, some other socio-economic differences are looked at. Finally, we look at health merely as one dimension in any review of the wellbeing of the elderly, and of the middle-aged, but a very critical one.

### **3. Measuring Health and Wellbeing**

The sorts of questions that the SF-12 (or its parent instrument the SF-36) addresses translate across from personal wellbeing into an analysis of factors that relate to the institutional and service contexts of wellbeing in any society. There are underlying issues that are beyond the scope of this paper, notably the policies surrounding the way in which health care is delivered. These are beyond our scope simply because New Zealand health care, except at its margins or for elective procedures, mainly has a publicly-funded base, as against a privatised or insurance-contribution dependent system; that said, there has been some erosion of the welfare state health model in recent decades. We do not have comparators in our data to allow us to control for this factor, but a comparison between Canada, which has a system not unlike ours, and the United States, which does not, shows that the Canadian model delivers a better outcome for a lower proportion of GDP, than the American (Huguet, Kaplan & Feeny, 2008).

There is also the question of expectations the general public and media have about the health care system. These expectations may have little to do with the realities of health: it is interesting that by far the worst health is experienced by Māori men, yet the focus of the health debate at middle-ages has been on women, particularly Pakeha women, statistically the best off. Debates usually manifest themselves in publicised failure or in rather meaningless statistics such as waiting lists. To the extent that people perceive that they have a reasonable health status, then this is an indirect indication of outcomes, of their own circumstances, but also because of the favourable effects of any interventions or services, such as a visit to the doctor, they may have experienced. This and other health related questions (e.g. smoking) were not asked in the EWAS survey, but have been covered in official surveys. Links between health related behaviours and doctors visits, on the one hand, and the SF-36 scores, on the other, are strong and logical (e.g. Ministry of Health, 1999a and 1999b: Figures 79 & 80).

The data used in this chapter come from the national-level EWAS survey of 2007-08, the sampling and other methodological and data quality details of which are described elsewhere in this monograph. For a survey of its genre it has large cell-sizes simply because the sample was restricted to persons aged 40-64 years; most samples covering these issues of social behaviour and/or wellbeing cover a broader spectrum of ages.

The health data employed here relate to health status and come from (i) a general question, and (ii) from an internationally used scale, the SF-12. Both are self-reported, a procedure that may seem at first to be remarkably un-robust. In fact, survey experience from all over the world shows that these reports are strong predictors of mortality, the ultimate measure of health status (Ware et al., 2007; see also Ministry of Health, 1999a: 148), and are far more useful measures than self-reported events of illness and/or injury.<sup>21</sup>

The general question asks respondents to assess their own health status on a five-category scale: Excellent, Very Good, Good, Fair, and Poor. This question had been employed previously in New Zealand in official surveys (Ministry of Health, 1999b, 2006, 2008), the first of which provided a useful analysis of its predictive power (Ministry of Health, 1999a: 148-150). As will be shown below for the midlife data, the EWAS survey data for the older age-groups (N, 65-84 = 1,680) results are close to those from the New Zealand Health Survey (N, all of 65+ years = 1,528).<sup>22</sup>

The scale based on the SF Health Status questionnaire has also been used in New Zealand before. The SF scale was first used, regionally, by the Health and Disability Unit, Midland Regional Health Authority (1997), which validated the instrument for New Zealand conditions. In a paper to a Public Health Association conference, Wheadon, Kokaua and Sceats (1994) note that the SF-36 was developed in the United States and has been validated for the American, UK and Australian populations. Used in the New Zealand context the SF-36 was found to be a valid and easily administered instrument. They showed that it produced results that: (i) were similar to those seen in directly comparable countries, and (ii) fitted well with the observed health behaviours of populations and sub-populations. A second prior use of the SF-36 was in three official national surveys, 1995-96, the best documented, 2002-03 and 2006-07. All of which again validated the SF-36 and reported that it yielded intuitively reasonable results (Ministry of Health, 1999a, 2006 and 2008).<sup>23</sup>

All the earlier surveys used the longer format (SF-36); in contrast, EWAS adopted the shorter SF-12 for the very pragmatic reason of survey efficiency – health was merely one domain among a number being investigated. These earlier surveys provide us with very useful comparisons, although there is one major limitation.

Like all instruments in the SF-family, the SF-12 generates answers to particular items, and can then be scored to produce two scales, a Physical Component Summary (PCS) and a Mental Component Summary (MCS). These scales are scored to have a mean of 50 and a standard deviation of 10. As in the case of the official surveys, our PCS showed means just below 50, with standard deviations just above 10, and the MCS had means above 50, and standard deviations below 10. While the items provide reasonably reliable results for samples of approximately the same magnitude as ours, the overall PCS and MCS results are more robust when using the SF-12 with fewer items than is true for the SF-36. Here, therefore, we have chosen to restrict our results to these two robust summary scales, where the SF-12 produces scores that vary only in minor detail from the much longer SF-36 (Ware et al., 2007<sup>24</sup>).

## 4. Results

### 4.1 *Self-Reported Health Status*

In this and later sections of the chapter, a comparison is made between the data on 40-64 year-olds and those for older people. As a general point those in midlife report better health than the elderly, a logical and entirely expected result. That said, however, a caveat must be entered – the total

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<sup>21</sup> With self-reported aetiological questions there is a high risk of false positives and negatives; sometimes a trivial acute condition gets reported, whereas a serious chronic one that is incapacitating but temporarily in apparent remission will not be. And there are also errors of categorisation, diagnosis and for definitions.

<sup>22</sup> This and the next few paragraphs are drawn directly from Pool, Amey et al., 2009.

<sup>23</sup> Ministry of Health, 2008: Chapter 4, and b: 139-41; see also Ministry of Health, 2006 and 2008.

<sup>24</sup> Ware et al., 2007: 69-71, referring to version 2, Appendix C, esp. 224-35 referring to comparisons with the SF-36

population in the midlife survey has a significantly higher percent of Māori than the survey of the elderly, and this may affect overall results. Some data, limited in scope, will be presented on Māori – non-Māori differentials.

The majority of midlife respondents rate their health as Excellent or Very Good, irrespective of sex, as is shown in Table 2.2. Ratings of Poor or Fair health for both males and females, although relatively low, increase incrementally with age. Females were slightly more likely to report being in Poor or Fair health than males.

A smaller proportion of the 65-74 year age-group reported Poor or Fair health than those in the 60-64 year age-group (see Table 2.3). However, there is a progressively downward shift through the age-groups, from high levels of Excellent and Very Good ratings to relatively higher levels of Good, Fair, or Poor ratings.

Table 2.2  
*Global Self-rated Health of Midlife Survey Respondents by Age and Gender (%)*

| Age-Group | Excellent/Very Good |        | Good |        | Poor/Fair |        |
|-----------|---------------------|--------|------|--------|-----------|--------|
|           | Male                | Female | Male | Female | Male      | Female |
| 40-49     | 61                  | 64     | 30   | 25     | 10        | 11     |
| 50-59     | 65                  | 59     | 23   | 23     | 12        | 18     |
| 60-64     | 52                  | 65     | 33   | 20     | 15        | 15     |

*Note:* Percentages may not add to 100% due to rounding.

Table 2.3  
*Global Self-Rated Health of Older Survey Respondents by Age and Gender (%)*

| Age-Group | Excellent/Very Good |        | Good |        | Poor/Fair |        |
|-----------|---------------------|--------|------|--------|-----------|--------|
|           | Male                | Female | Male | Female | Male      | Female |
| 65-74     | 56                  | 58     | 32   | 31     | 12        | 12     |
| 75-84     | 49                  | 51     | 34   | 31     | 17        | 19     |

*Note:* Percentages may not add to 100% due to rounding.

Some of the inconsistencies in this trend may be a product of respondents' preconceptions about what good health is relative to their current age. Retirement age may be a factor: on reaching the traditional age of retirement, people may assess their health as better than they expected, particularly if expectations are based on previous generations, especially their own parents. Alternatively, as older people move into retirement and are freed from the demands of daily work, they may experience in the short term a greater sense of control over their lives and thereby feel healthier, or simply have the time to adopt healthier behaviours (e.g. see Midanik et al., 1995).

Table 2.4 places the EWAS survey data alongside the two large, face-to-face national surveys conducted by the Ministry of Health. The results, if viewed as part of a continuum, suggest a peak of health status in 2006/07, denoting that health gains reached a plateau. The results are different from those in Table 2.5, where there is an apparent improvement in the health status of the older age-groups over time. But this difference may be more apparent than real; for the older survey EWAS excluded the institutionalised population.

Table 2.4

*Global Self-rated Health, at 45-64 years, Official Health Surveys of 1996/97 and 2006/07, EWAS 2008 (%)*

| Survey Data                   | Excellent/ Very Good | Good | Poor/Fair | Total |
|-------------------------------|----------------------|------|-----------|-------|
| Official 1996/97*             | 57                   | 32   | 12        | 100%  |
| EWAS 2008                     | 61                   | 25   | 14        | 100%  |
| Official 2006/07 – 45-54yrs** | 63                   | 28   | 10        | 100%  |
| Official 2006/07 - 55-64yrs** | 60                   | 29   | 11        | 100%  |
| EWAS 2008 – 45-54yrs          | 61                   | 26   | 14        | 100%  |
| EWAS 2008 – 55-64yrs          | 61                   | 24   | 16        | 100%  |

Source: \* Ministry of Health, 1999a: Table 38

\*\*Ministry of Health, 2008 ([www.moh.govt.nz/moh.nsf](http://www.moh.govt.nz/moh.nsf)).

Table 2.5

*Global Self-Rated Health, at 65-74 years, Official Health Surveys of 1996/97 and 2006/07, EWAS 2007 (%)*

| Survey Data        | Excellent/Very Good | Good | Poor/Fair | Total |
|--------------------|---------------------|------|-----------|-------|
| Official 1996/97*  | 46                  | 34   | 20        | 100%  |
| Official 2006/07** | 54                  | 32   | 15        | 100%  |
| EWAS 2007***       | 57                  | 31   | 12        | 100%  |

Source: \* Ministry of Health, 1999a: Table 38.

\*\*Ministry of Health, 2008 ([www.moh.govt.nz/moh.nsf](http://www.moh.govt.nz/moh.nsf)).

\*\*\*Pool, Amey et al, 2009.

Health has some correlation with wellbeing, but the relationship is not as direct as one might expect. Around half of respondents who rate their health as Poor or Fair still rated their well-being highly, as either Satisfied or Very Satisfied, a pattern that increased with age – particularly when viewed alongside the older age-groups (see Table 2.6). Thus, while health is definitely linked to wellbeing, independent, presumably bio-medical factors, mediate this relationship. Equally well, perceptions of wellbeing at middle ages must take into account the fact that families still typically face the costs of childrearing – and with delayed childbearing dependent children may be in the household until their parents are well into their sixties (Pool, Dharmalingam & Sceats, 2007), and thus affect household income levels, housing and other factors.

Table 2.6

*Midlife Respondents Satisfied and Very Satisfied with Wellbeing by Global Self-rated Health (%)*

| Age-group | Health Rating       |      |           |
|-----------|---------------------|------|-----------|
|           | Excellent/Very Good | Good | Poor/Fair |
| 40-44     | 91                  | 72   | 51        |
| 45-49     | 91                  | 73   | 48        |
| 50-54     | 90                  | 79   | 57        |
| 55-59     | 95                  | 72   | 56        |
| 60-64     | 94                  | 88   | 60        |

At older ages, one could argue, health may be a determinant of wellbeing, but its effects are mediated by an innate recognition that at older age poor/fair health may occur, which modifies rather than negates the perception of overall satisfaction. Thus, as is seen in Table 2.7, the proportions reporting satisfactory levels of wellbeing are high to very high for all self-rated health categories.



Table 2.7

*Older Age-Group Respondents Satisfied and Very Satisfied with Wellbeing by Global Self-Rated Health (%)*

| Age-group | Health Rating       |      |           |
|-----------|---------------------|------|-----------|
|           | Excellent/Very Good | Good | Poor/Fair |
| 65-74     | 93                  | 90   | 71        |
| 75-84     | 93                  | 89   | 80        |

As was noted earlier, survey results can be drawn for ethnicity, at least for a Māori – non-Māori breakdown. This is given in Table 2.8. Māori have far lower percentages reporting Excellent, Very Good, or Good health than do non-Māori; the smaller gap at 45-54 years may be a function more of sampling error than of a real trend. Non-Māori trend down consistently whereas Māori rates show no consistent age-related trend.

Table 2.8

*Global Self-Rated Health of Midlife Survey Respondents by Age and Ethnicity: Percent reporting Excellent, Very Good or Good Health (%)*

| Age-group   | Māori | Non-Māori |
|-------------|-------|-----------|
| 40-44       | 76    | 93        |
| 45-54       | 82    | 87        |
| 55-64       | 73    | 85        |
| Total 40-64 | 77    | 88        |

*Note:* The raw data from which this table is drawn is in Appendix Table 2.1

The Ministry of Health data do not provide for an exact comparison for non-Māori, but the results for the Total Population are close enough. Unfortunately, published official data do not provide age-breakdowns. However, the results in Table 2.9 for all ages show the levels of excellent and good health are higher than for Fair/Poor health, but this is a statistic that includes childhood and other younger ages that have already benefitted from the passage of the epidemiologic transition described earlier.

Table 2.9

*Global Self-Rated Health of Survey Respondents by Ethnicity (%)*

| Survey Year | Ethnicity        | Excellent/ VG | Good | Fair/Poor | Total |
|-------------|------------------|---------------|------|-----------|-------|
| 1996/7      | Māori            | 48            | 32   | 19        | 100%  |
|             | Total Population | 58            | 30   | 12        | 100%  |
| 2008        | Māori            | 52            | 35   | 14        | 100%  |
|             | Total Population | 61            | 29   | 10        | 100%  |

*Note:* Percentages may not add to 100% due to rounding.

*Source:* \* Ministry of Health 1999a: Table 38.

\*\*Ministry of Health 2008 ([www.moh.govt.nz/moh.nsf](http://www.moh.govt.nz/moh.nsf)).

The SF-12 index provides a measure of the physical and mental components of a person's health. These data are presented in Table 2.10 for the midlife age groups and comparative data on older respondents are presented in Table 2.11.

Like other self-reported health scores, SF-12 scores are skewed upwards, a norm for this study, even at the midlife ages. A gradual, albeit slight, deterioration by age-group in the physical component is evident for both males and females. This trend continues into the older age groups (see Table 2.11). However, there is a gradual, but small, increase in the mental component, regardless of age-group or sex. This confirms findings in other surveys using SF instruments.

Table 2.10

*SF-12, Physical and Mental Components of Survey Respondents by Gender and Midlife Age-Groups: Means, Minima, and Maxima*

| Age-group | SF Component | Minima |        | Means |        | Maxima |        |
|-----------|--------------|--------|--------|-------|--------|--------|--------|
|           |              | Male   | Female | Male  | Female | Male   | Female |
| 40-44     | Physical     | 23     | 15     | 53    | 53     | 63     | 65     |
|           | Mental       | 8      | 23     | 52    | 52     | 64     | 68     |
| 45-49     | Physical     | 16     | 21     | 51    | 51     | 66     | 64     |
|           | Mental       | 19     | 16     | 52    | 52     | 66     | 65     |
| 50-54     | Physical     | 19     | 17     | 52    | 50     | 65     | 68     |
|           | Mental       | 19     | 12     | 54    | 52     | 68     | 66     |
| 55-59     | Physical     | 15     | 12     | 52    | 47     | 65     | 64     |
|           | Mental       | 19     | 25     | 55    | 55     | 65     | 71     |
| 60-64     | Physical     | 15     | 15     | 48    | 49     | 65     | 67     |
|           | Mental       | 20     | 24     | 56    | 55     | 68     | 69     |

Table 2.11

*SF-12, Physical and Mental Components of Survey Respondents by Gender and Older Age-Groups: Means, Minima, and Maxima*

| Age-group | SF Component | Minima |        | Means |        | Maxima |        |
|-----------|--------------|--------|--------|-------|--------|--------|--------|
|           |              | Male   | Female | Male  | Female | Male   | Female |
| 65-74     | Physical     | 14     | 14     | 48    | 46     | 65     | 68     |
|           | Mental       | 19     | 18     | 56    | 55     | 70     | 71     |
| 75-84     | Physical     | 16     | 12     | 46    | 44     | 61     | 65     |
|           | Mental       | 27     | 16     | 57    | 55     | 69     | 69     |

## 4.2 Co-Variates of Self-Reported Health Status

### 4.2.1 Health and Income

Table 2.12 presents data on personal income by the health status ratings of Excellent/Very Good, Good, and Poor/Fair. Data on household income are not presented here, but the results were similar to those for personal incomes.

Around one in five could not respond or refused to respond, to the personal income question, as is common with personal and household income questions in surveys. For that reason data presented in Table 2.12 include the missing values for the one-fifth of respondents who did not/could not reply. The missing values were proportionately lower amongst the midlife age-groups compared with the older age-groups, partly a reflection of the different income streams of the two groups.

There are relatively clear and consistent relationships between income and health status – the higher the income the better the self-reported health status. This is more evident in the midlife age-groups than the older age-groups (see Table 2.13). This suggests either that the health advantages of higher socio-economic status reduce with age, or that there is less income inequality at older than at middle ages. Personal incomes certainly become more equal at the older ages (see Appendix Table 2.2).

Table 2.12

*Global Self-Rated Health Status by Personal Income (\$ 000s) or Missing Values by Midlife Age-Groups (%)*

| Age-group | Health Status       | Income (\$000's) |       |       |      | Missing values |
|-----------|---------------------|------------------|-------|-------|------|----------------|
|           |                     | <20              | 20-40 | 40-60 | 60+  |                |
| 40-44     | Excellent/Very Good | 63               | 71    | 56    | 71   | 65             |
|           | Good                | 26               | 20*   | 34    | 26   | 28             |
|           | Poor/Fair           | 12*              | 9*    | 10*   | 4*   | 7*             |
|           | Total               | 100%             | 100%  | 100%  | 100% | 100%           |
| 45-49     | Excellent/Very Good | 46               | 64    | 62    | 72   | 50             |
|           | Good                | 30               | 21*   | 30    | 20   | 37             |
|           | Poor/Fair           | 24*              | 15*   | 8*    | 8*   | 13*            |
|           | Total               | 100%             | 100%  | 100%  | 100% | 100%           |
| 50-54     | Excellent/Very Good | 47               | 54    | 64    | 78   | 56             |
|           | Good                | 22*              | 30    | 24*   | 15*  | 31             |
|           | Poor/Fair           | 31*              | 16*   | 12*   | 7*   | 13*            |
|           | Total               | 100%             | 100%  | 100%  | 100% | 100%           |
| 55-59     | Excellent/Very Good | 45               | 58    | 66    | 77   | 61             |
|           | Good                | 23*              | 25*   | 20*   | 20*  | 20*            |
|           | Poor/Fair           | 31*              | 17*   | 14*   | 3**  | 19*            |
|           | Total               | 100%             | 100%  | 100%  | 100% | 100%           |
| 60-64     | Excellent/Very Good | 49               | 64    | 65    | 70   | 53             |
|           | Good                | 27*              | 29*   | 27*   | 22*  | 27             |
|           | Poor/Fair           | 24*              | 7**   | 8**   | 8**  | 20*            |
|           | Total               | 100%             | 100%  | 100%  | 100% | 100%           |

Note: \* N <20 \*\* N <5

The health status of respondents with a personal income of \$40,000 or more peaks among those aged between 50 and 60 years of age, which may be associated with life-cycle factors such as empty-nest households or the peak of personal earning power. The pattern is less clear for those respondents with income of under \$40,000, but there is a general downward trend in health status across the age-groups. Although the income bands are not directly comparable between Tables 2.12 and 2.13, as they are based on quartiles to give an even range distribution, the general patterns observed for the midlife age-groups are also true for the older age-groups.

Table 2.13

*Global Self-Rated Health Status by Personal Income (\$ 000s) or Missing Values by Older Age-Groups (%)*

| Age-group | Health Status       | Income (\$000's) |       |       |      | Missing values |
|-----------|---------------------|------------------|-------|-------|------|----------------|
|           |                     | <15              | 15-20 | 20-30 | 30+  |                |
| 65-74     | Excellent/Very Good | 49               | 50    | 66    | 60   | 56             |
|           | Good                | 43               | 32    | 26    | 31   | 30             |
|           | Poor/Fair           | 8*               | 18    | 8*    | 9*   | 14             |
|           | Total               | 100%             | 100%  | 100%  | 100% | 100%           |
| 75-84     | Excellent/Very Good | 35               | 51    | 50    | 64   | 47             |
|           | Good                | 50               | 30    | 33    | 22   | 33             |
|           | Poor/Fair           | 15*              | 19    | 17    | 15*  | 20             |
|           | Total               | 100%             | 100%  | 100%  | 100% | 100%           |

The use of income as a measure of socioeconomic status is at best problematic, as it implies that income is somehow a standardised way to account for demographic and geographic differences among the population, such as the cost of living in different areas of the country, or the cost of living associated among the employed and non-employed. A self-assessed measure of economic wellbeing offers a more easily standardised measure of comparison that bypasses many of these factors, even if it is based on a seemingly arbitrary self-determined measure of economic wellbeing.

#### 4.2.2. Health and Economic Wellbeing

The interrelationship of health and socio-economic status can also be explored through considering health status and self-assessed economic wellbeing. The data presented in Table 2.14 show the health status of respondents by their self-assessed economic wellbeing for midlife age groups, and Table 2.15 presents the results for the older age groups. While there were some differences by age (perhaps explicable given the drop in income with retirement) the differences between the two samples were relatively minor. This is probably because older respondents are more likely to adjust their needs to fit their income, just as they adjust their assessment of their health status to fit the inevitable deterioration old age brings. Against this, older respondents within all categories of material wellbeing were likely to have lower perceptions of their health than was true for the younger respondents, as one would expect.

Rather more interesting are the differences by age within the midlife sample. At 40-44 years the links between health status and self-assessed income adequacy were rather weak. However, with the older midlife age-groups this relationship strengthens.

Table 2.14

*Global Self-Rated Health Status by Adequacy of Money to meet Everyday Needs by Midlife Age-Groups (%)*

| Age-group | Health Status       | Money to meet everyday needs |        |                  |
|-----------|---------------------|------------------------------|--------|------------------|
|           |                     | Not/Just enough              | Enough | More than enough |
| 40-44     | Excellent/Very Good | 68                           | 59     | 73               |
|           | Good                | 23                           | 35     | 16*              |
|           | Poor/Fair           | 9                            | 7*     | 11*              |
|           | Total               | 100%                         | 100%   | 100%             |
| 45-49     | Excellent/Very Good | 51                           | 66     | 73               |
|           | Good                | 33                           | 23     | 21*              |
|           | Poor/Fair           | 17                           | 11     | 6*               |
|           | Total               | 100%                         | 100%   | 100%             |
| 50-54     | Excellent/Very Good | 55                           | 59     | 79               |
|           | Good                | 26                           | 27     | 15*              |
|           | Poor/Fair           | 19                           | 14     | 6**              |
|           | Total               | 100%                         | 100%   | 100%             |
| 55-59     | Excellent/Very Good | 43                           | 71     | 82               |
|           | Good                | 28                           | 21     | 9*               |
|           | Poor/Fair           | 29                           | 9*     | 8*               |
|           | Total               | 100%                         | 100%   | 100%             |
| 60-64     | Excellent/Very Good | 43                           | 65     | 75               |
|           | Good                | 28                           | 29     | 20*              |
|           | Poor/Fair           | 29                           | 7*     | 5**              |
|           | Total               | 100%                         | 100%   | 100%             |

Note: \* N <20 \*\* N <5

Table 2.15

*Global Self-Rated Health Status by Adequacy of Money to meet Everyday Needs by Older Age-Groups (%)*

| Age-group | Health Status       | Money to meet everyday needs |        |                  |
|-----------|---------------------|------------------------------|--------|------------------|
|           |                     | Not/Just enough              | Enough | More than enough |
| 65-74     | Excellent/Very Good | 49                           | 62     | 65               |
|           | Good                | 34                           | 30     | 27               |
|           | Poor/Fair           | 17                           | 8      | 8*               |
|           | Total               | 100%                         | 100%   | 100%             |
| 75-84     | Excellent/Very Good | 43                           | 53     | 63               |
|           | Good                | 36                           | 31     | 25*              |
|           | Poor/Fair           | 21                           | 16     | 13*              |
|           | Total               | 100%                         | 100%   | 100%             |

Note: \* N <20

#### 4.2.3. Health and Employment Status

The inter-relationship between health and socio-economic status can also be examined through the relationship between health and employment status. Tables 2.16 and 2.17 show the employment status of the midlife and older age-groups by their self-rated health status. The differences between the tables are of particular interest due to the shift in emphasis within these age-groups away from full-time employment.

Those in full-time employment report equal or better health status across almost all age-groups, except those in the oldest age-groups (75-84 years), where those who are in part-time employment report being in the best health. These results suggest that those who are fully retired before the traditional retirement ages may be doing so due to health reasons or that employment has a positive influence on health status.

The results also suggest that there comes a point when the positive influence of full-time employment wanes, but that some form of employment, either paid or unpaid, is of benefit to health status. There will no doubt be those for whom their health status has enforced their retirement, prematurely or otherwise, which will blur the issue somewhat.

Table 2.16

*Global Self-Rated Health Status by Employment Status by Midlife Age-Groups (%)*

| Age-Group | Health Status       | Fully retired | Full-time paid work | Part-time paid work | Voluntary/ Unpaid Work/ Other^ |
|-----------|---------------------|---------------|---------------------|---------------------|--------------------------------|
| 40-44     | Excellent/Very Good | 36**          | 66                  | 66                  | 62                             |
|           | Good                | 36**          | 26                  | 27                  | 29                             |
|           | Fair/Poor           | 28**          | 8                   | 6*                  | 9*                             |
|           | Total               | 100%**        | 100%                | 100%                | 100%                           |
| 45-49     | Excellent/Very Good | 43**          | 62                  | 62                  | 55                             |
|           | Good                | 27**          | 26                  | 26                  | 27*                            |
|           | Fair/Poor           | 30**          | 11                  | 12*                 | 18*                            |
|           | Total               | 100%*         | 100%                | 100%                | 100%                           |
| 50-54     | Excellent/Very Good | 44*           | 69                  | 53                  | 44                             |
|           | Good                | 29**          | 23                  | 27                  | 24*                            |
|           | Fair/Poor           | 27**          | 8*                  | 19*                 | 32*                            |
|           | Total               | 100%*         | 100%                | 100%                | 100%                           |
| 55-59     | Excellent/Very Good | 52*           | 66                  | 64                  | 52                             |
|           | Good                | 15**          | 23                  | 22*                 | 18*                            |
|           | Fair/Poor           | 34*           | 11*                 | 14*                 | 30*                            |
|           | Total               | 100%          | 100%                | 100%                | 100%                           |
| 60-64     | Excellent/Very Good | 53            | 66                  | 55                  | 51                             |
|           | Good                | 30*           | 23                  | 32                  | 25*                            |
|           | Fair/Poor           | 17*           | 11*                 | 13*                 | 24*                            |
|           | Total               | 100%          | 100%                | 100%                | 100%                           |

Note: \* N &lt;20 \*\* N &lt;5

^ Category combines the following categories: “Voluntary work outside the home”; “Full-time unpaid family/farm business”; “Part-time unpaid family/farm business”, “Other” and “Homemaker”.

Table 2.17

*Global Self-Rated Health Status by Employment Status by Older Age-Groups (%)*

| Age-Group | Health Status       | Fully retired | Full-time paid work | Part-time paid work | Voluntary/ Unpaid Work/Other^ |
|-----------|---------------------|---------------|---------------------|---------------------|-------------------------------|
| 65-74     | Excellent/Very Good | 52            | 66                  | 66                  | 59                            |
|           | Good                | 36            | 24                  | 23                  | 30                            |
|           | Fair/Poor           | 13            | 10*                 | 11*                 | 11*                           |
|           | Total               | 100%**        | 100%                | 100%                | 100%*                         |
| 75-84     | Excellent/Very Good | 50            | 47                  | 59                  | 56                            |
|           | Good                | 32            | 31*                 | 34*                 | 31                            |
|           | Fair/Poor           | 18            | 22*                 | 7**                 | 13*                           |
|           | Total               | 100%          | 100%                | 100%                | 100%*                         |

Note: \* N &lt;20 \*\* N &lt;5

^ Category combines the following categories: “Voluntary work outside the home”; “Full-time unpaid family/farm business”; “Part-time unpaid family/farm business”, “Other” and “Homemaker”.

#### 4.2.4. Health and Highest Educational Qualification

Another element of the interrelationship of health and socio-economic status is the dynamic of health status and education, measured here as the highest educational attainment. The data presented in Table 2.18 show the health status of respondents by their highest educational attainment for midlife age groups, and Table 2.19 presents the results for the older age groups. The results in the tables show that, generally, the higher the educational attainment, the higher the proportion of respondents who reported their health status as Excellent or Very Good.

Table 2.18

*Global Self-Rated Health Status by Highest Educational Attainment by Midlife Age-Groups (%)*

| Age-Group | Health Status       | Up to primary schooling | Secondary schooling | Vocational/ trades qualification | University qualification |
|-----------|---------------------|-------------------------|---------------------|----------------------------------|--------------------------|
| 40-44     | Excellent/Very Good | 68*                     | 63                  | 62                               | 73                       |
|           | Good                | 20*                     | 27                  | 31                               | 21                       |
|           | Fair/Poor           | 12**                    | 10*                 | 7*                               | 6*                       |
|           | Total               | 100%                    | 100%                | 100%                             | 100%                     |
| 45-49     | Excellent/Very Good | 46*                     | 60                  | 62                               | 66                       |
|           | Good                | 26*                     | 26                  | 26                               | 25                       |
|           | Fair/Poor           | 28*                     | 14*                 | 12*                              | 9*                       |
|           | Total               | 100%                    | 100%                | 100%                             | 100%                     |
| 50-54     | Excellent/Very Good | 50*                     | 63                  | 58                               | 67                       |
|           | Good                | 19*                     | 25                  | 27                               | 24                       |
|           | Fair/Poor           | 31*                     | 12*                 | 15*                              | 9*                       |
|           | Total               | 100%                    | 100%                | 100%                             | 100%                     |
| 55-59     | Excellent/Very Good | 47*                     | 63                  | 64                               | 72                       |
|           | Good                | 21*                     | 24                  | 19                               | 18*                      |
|           | Fair/Poor           | 31*                     | 14*                 | 17*                              | 10*                      |
|           | Total               | 100%                    | 100%                | 100%                             | 100%                     |
| 60-64     | Excellent/Very Good | 45*                     | 59                  | 59                               | 67                       |
|           | Good                | 26*                     | 29                  | 28                               | 21*                      |
|           | Fair/Poor           | 28*                     | 13*                 | 14*                              | 12*                      |
|           | Total               | 100%                    | 100%                | 100%                             | 100%                     |

Note: \* N <20 \*\* N <5

Table 2.19

*Global Self-Rated Health Status by Highest Educational Attainment by Older Age-Groups (%)*

| Age-Group | Health Status       | Up to primary schooling | Secondary schooling | Vocational/ trades qualification | University qualification |
|-----------|---------------------|-------------------------|---------------------|----------------------------------|--------------------------|
| 65-74     | Excellent/Very Good | 53                      | 56                  | 58                               | 62                       |
|           | Good                | 37                      | 30                  | 31                               | 29                       |
|           | Fair/Poor           | 10*                     | 14                  | 11                               | 9*                       |
|           | Total               | 100%                    | 100%                | 100%                             | 100%                     |
| 75-84     | Excellent/Very Good | 48                      | 45                  | 50                               | 65                       |
|           | Good                | 38                      | 39                  | 33                               | 15*                      |
|           | Fair/Poor           | 14*                     | 16                  | 17                               | 21*                      |
|           | Total               | 100%                    | 100%                | 100%                             | 100%                     |

Note: \* N &lt;20

#### 4.2.5. Health and Personal Safety

Table 2.20 presents data on health status and perceptions about personal safety, a factor that potentially affects the immediate environment of an older person's social-emotional wellbeing. Most respondents were satisfied with their personal safety, and there was little variance by age. This in itself is an important finding. However, as a result, cell sizes for 'dissatisfied' were very small. The results in Table 2.21 for the older age-groups are much the same, with similar caveats.

Table 2.20

*Global Self-Rated Health Status by Perceptions about Personal Safety for Midlife Age-Groups (%)*

| Age-group | Health Status       | Perceptions about Personal Safety |           |
|-----------|---------------------|-----------------------------------|-----------|
|           |                     | Dissatisfied                      | Satisfied |
| 40-44     | Excellent/Very Good | 63*                               | 65        |
|           | Good                | 37**                              | 27        |
|           | Poor/Fair           | 0**                               | 8         |
|           | Total               | 100%                              | 100%      |
| 45-49     | Excellent/Very Good | 36*                               | 62        |
|           | Good                | 56*                               | 25        |
|           | Poor/Fair           | 8**                               | 12        |
|           | Total               | 100%                              | 100%      |
| 50-54     | Excellent/Very Good | 64*                               | 61        |
|           | Good                | 17**                              | 25        |
|           | Poor/Fair           | 20**                              | 14        |
|           | Total               | 100%                              | 100%      |
| 55-59     | Excellent/Very Good | 30**                              | 64        |
|           | Good                | 24**                              | 21        |
|           | Poor/Fair           | 46**                              | 16        |
|           | Total               | 100%                              | 100%      |
| 60-64     | Excellent/Very Good | 69*                               | 58        |
|           | Good                | 15**                              | 27        |
|           | Poor/Fair           | 16**                              | 15        |
|           | Total               | 100%                              | 100%      |

Note: \* N &lt;20 \*\* N &lt;5



Table 2.21  
Global Self-Rated Health Status by Perceptions about Personal Safety for Older Age-Groups (%)

| Age-group | Health Status       | Perceptions about Personal Safety |           |
|-----------|---------------------|-----------------------------------|-----------|
|           |                     | Dissatisfied                      | Satisfied |
| 65-74     | Excellent/Very Good | 47*                               | 57        |
|           | Good                | 18**                              | 31        |
|           | Poor/Fair           | 35*                               | 11        |
|           | Total               | 100%                              | 100%      |
| 75-84     | Excellent/Very Good | 24**                              | 51        |
|           | Good                | 50*                               | 32        |
|           | Poor/Fair           | 27**                              | 18        |
|           | Total               | 100%                              | 100%      |

## 5. Conclusion

Most New Zealanders at middle and older ages are satisfied with their health. The proportions decrease by age, as would be expected.

There are relatively clear and consistent relationships between income and health status – the higher the income the better the self-reported health status. This is more evident in the midlife age-group than the older age-group.

The Māori – non-Māori difference is marked at middle-ages. If the results for SF-12, the instrument used here, had been available at older ages by ethnicity, they probably would have paralleled those for Health Expectancies in official surveys: the differences would probably have become more muted at older ages. However, as noted earlier this is, at least in part, a function of the different passages of Māori and non-Māori through their epidemiologic transitions. This has major implications for policy. On every health measure (the SF-12 used here included) Māori are disadvantaged, particularly at middle-ages, and most notably for males aged 40-64 years. Ameliorating the health status of Māori at these ages continues to demand attention being paid to their cohort histories as reflected in life-table data on survival. Recent indicator data show improvements in most social and economic indicators, including life expectancy, where improvement has been greater than for the rest of the population (Ministry of Social Development, 2008).

Good health is very much a component of general wellbeing, but levels of satisfaction with wellbeing are very high, higher than for health. That said, some of those reporting Fair/Poor health do not see their wellbeing as negative. Thus the links between health and wellbeing must be mediated by other exogenous factors. If *material* wellbeing, rather than *overall* wellbeing, is used as the measure, then the metric changes somewhat, as the links between health and having enough money for everyday needs is reasonably strong.

## 6. Appendix

Appendix Table 2.1

*Global Self-Rated Health of Midlife Survey Respondents by Age and Ethnicity (%)*

| Age-group | Māori            |      |           |     | Non-Māori        |      |           |       |
|-----------|------------------|------|-----------|-----|------------------|------|-----------|-------|
|           | Excellent/<br>VG | Good | Fair/Poor | Ns  | Excellent/<br>VG | Good | Fair/Poor | Ns    |
| 40-44     | 22               | 11   | 9         | 43  | 280              | 114  | 26        | 420   |
| 45-49     | 18               | 16   | 6         | 40  | 254              | 108  | 51        | 413   |
| 50-54     | 14               | 6    | 6         | 26  | 226              | 89   | 51        | 367   |
| 55-59     | 8                | 4    | 5         | 17  | 214              | 72   | 52        | 338   |
| 60-64     | 6                | 6    | 3         | 16  | 162              | 71   | 40        | 273   |
| Total     | 68               | 43   | 30        | 141 | 1,137            | 453  | 221       | 1,811 |

Appendix Table 2.2

*Self-Reported Personal Income of Midlife and Older Survey Respondents by Age*

| Age-group   | \$0-\$20,000 | \$20,000-\$30,000 | >\$30,000 | Median   |
|-------------|--------------|-------------------|-----------|----------|
| Total 40-64 | 22%          | 12%               | 66%       | \$45,000 |
| Total 65-84 | 30%          | 31%               | 39%       | \$22,000 |

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# Chapter 3: Education – 40-64 year-old New Zealanders

Peggy Koopman-Boyden

## 1. Introduction

Older New Zealanders currently aged 65 to 84 lived through a period when free primary and secondary education were being established in New Zealand, along with a set of qualifications which endured for 50 years after the 1944 Thomas Report.

The current 40-64 year-olds, however, largely grew up in a period of population growth and considerable social change, when school enrolments grew at an unprecedented rate, and the education system expanded rapidly, especially in the tertiary sector. A different generation consequently gained a different level and type of education...or did they?

This chapter considers the education available to the 2008 cohort of 40-64 year-olds, and the education that they received (or level of education they achieved). The chapter documents the dimensions of the level of education attained by these New Zealanders, and the relationship of education with their wellbeing. It also compares some of these findings with those of the 2007 cohort of 65-84 year-olds (Koopman-Boyden & van der Pas, 2009).

## 2. Literature – The Connection between Education and Overall Wellbeing

‘Knowledge and skills’, or education, is one of the ten domains seen by the Ministry of Social Development as discrete components of wellbeing. The ‘desired outcome statement’ for knowledge and skills is that “everybody has the knowledge and skills needed to participate fully in society. Lifelong learning and education are valued and supported” (2008:8). Each report measures the levels of knowledge and skills at particular points in the life cycle through the indicators of:

- participation in early childhood education,
- highest qualification of school leavers,
- participation in tertiary education, and the
- educational attainment of the adult population.

The connection between education and overall wellbeing has been well established in a plethora of research studies (Huguet, Kaplan & Feeny, 2008; Cutler, Landrum & Steward, 2006; Brim, Ryff & Kessler, 2002). However, in New Zealand, the EWAS research concerning 65-84 year-olds found that education, as measured by age when left school, highest qualification, and age at completion of highest qualification, was NOT related to a higher level of overall wellbeing (Koopman-Boyden & van der Pas, 2009). The same indicators of education were, however, significantly related to the level of satisfaction with education and were also related indirectly to overall wellbeing through income, participation in work after retirement, health, leisure and recreation, social contacts with other people, computer usage and participation rate in organisations, each of which is directly related to overall wellbeing. (Koopman-Boyden & Waldegrave, 2009).

In New Zealand access to education through the greater provision of educational facilities has increased markedly since the 65-84 year-olds were at school in the 1930s to 1950s, so higher levels of education can be expected with successive cohorts. However, differences in education attainment between the generations can also be expected as a result of the greater length of education and the associated costs.

Thus, older generations are less likely than the middle-aged to have benefited from the same length of compulsory education, either in the short or the long term, or from the contemporary ideology of 'life-long education'. On the other hand, the middle-aged can be expected to have higher educational qualifications, given longer compulsory education and the greater possibility of tertiary education. The middle-aged are also more likely to undertake further education of use to their work. The possibility of increased overall wellbeing among the middle-aged is obvious.

### *2.1 Direct Impact of Education on the Overall Wellbeing of the Middle-Aged and their Wellbeing in Specific Areas*

International research has established the link between education and wellbeing in a range of research on the middle-aged. In a 2004 study of 2,266 Americans aged 40 to 58 years, education played a 'modest role' in shaping 'baby boomer' assessments of their satisfaction with their life overall, their "life areas and the future" (Keegan et al., 2005:8). Better-educated respondents were found to be more likely than less well-educated respondents to be satisfied with their lives overall (86% compared with 80%). When asked as to their satisfaction levels with specific life areas, college-educated middle-aged Americans were more likely than less well educated respondents to be satisfied with their mental health (65% compared with 57%), work or career (48% compared with 36%) and personal finances (27% compared with 20%). The college-educated respondents were also more likely to describe their future as "fulfilling", whereas those without a college degree were more likely to use the words "anxious, uncertain, stressful, boring" in describing their future (p9).

In the longitudinal Old Age and Autonomy: The Role of Service Systems and Intergenerational Solidarity study (OASIS), a similar relationship between education and overall wellbeing was found in the five countries studied (Norway, England, Germany, Spain and Israel, N=4,000 aged 25-75 years). Along with this direct relationship, education was also important in improving labour force participation and income levels for individuals, and in raising general societal productivity at the macro level (Tesch-Romer, Motel-Kingebiel & von Kondratowitz, 2002). The study not only emphasised the importance of education to the wellbeing of younger generations, but also noted the opportunities for education throughout the life course, i.e. for middle-aged and older generations.

In a different way of establishing the link between education and wellbeing, the qualitative Everyday Well-Being Study (EDWB) of 83 individuals aged between 40-59 years, drawn from the 1995 national survey of Midlife in the U.S.A. (MIDUS, N=3,032), asked respondents why they thought their lives had gone well. 23% of the respondents gave 'educational attainment' as a main reason, behind upbringing (52% - the highest percentage), self development (48%), spouse (33%), other current family members (29%), but ahead of job (15%), and financial situation (13%) (Markus et al., 2004). College-educated respondents cited education as a reason their lives had gone well more often than high school educated respondents (40% compared with 5%). The importance of education was illustrated by a respondent as: "Even though I'm not using my education [directly], I'm who I am because of it" (p297).

### *2.2 Impact of Education on Intermediate Variables*

International research has also established the link between education as an intermediate variable, impacting on other variables that in turn leads to higher wellbeing. For example, with respect to health, the University of Michigan Health and Retirement Study, in two-yearly surveys of over 22,000 Americans aged 50+, found the pattern of disease at age 50 for people with less than a high school education is similar to that at age 60 for people with college degrees (National Institute on Aging, 2007). This finding suggests that education had a positive impact on the level of health of the higher educated respondents which in turn increased their level of wellbeing.

Using two U.S.A. representative national samples collected in 1990 and 1995,<sup>25</sup> Ross and Van Willigen (1990), have also established that education improves wellbeing by increasing access to non-alienated paid work (creative, non-routine, independent work) and economic resources, which in turn increases the sense of control over life. This study concluded that, “Education gives people access to non-alienated paid work and economic resources that, along with schooling itself, increase the sense of control over life and explain much of education’s positive effect on psychological wellbeing” (p291).

The impact of education on health, income, leisure and recreation, work, and health is discussed in other chapters in this publication.

### **3. Educational and Social Background of the 2008 cohort of 40-64 year-olds during the 1950s to 1970s**

Any investigation into the relationship between education and wellbeing must consider the extent of education provision. The level of education attained by citizens may also be limited by their social context and their access to education.

#### *3.1 Academic Qualifications available in the 1950s to 1970s*

While the provision of education during previous periods allowed for reasonable access for most children, those educated during the 1950s to the 1970s had easier access, given a more egalitarian and ‘open access’ philosophy among policy makers, and with the implementation of the Prime Minister’s statement that: “The Government’s objective, broadly expressed, is that every person, whatever his level of academic activity, whether he be rich or poor, whether he live in town or country, has a right, as a citizen, to a free education of the kind for which he is best fitted and to the fullest extent of his powers” (Fraser 1939: 2).

##### *3.1.1 Primary and Secondary Education*

During the 1950s, 1960s and 1970s when the 2008 sample of 40-64 year-olds was of primary and secondary school age, New Zealand had a free, national and compulsory system of primary and secondary education to the age of 15 years. Many secondary schools provided education to 17-18 years. This was a period of huge expansion in the primary and secondary school population, with New Zealand’s numbers of primary school students increasing from 365,400 in 1955 to 472,900 in 1965 (Statistics New Zealand, 2008). The flow-on effect of these ‘baby boomers’ meant that secondary school rolls rose from 157,900 in 1965 to 219,700 in 1975.

The several changes which had occurred in the primary and secondary education system during the 1940s arising from the Thomas Report (1944) resulted in a set of qualifications which endured for 50 years until the establishment of the National Qualifications Framework in 2002. The main qualifications established were: University Entrance (1944) and School Certificate (1946) (see Tables 3.1 and 3.2). Free secondary education at all levels had also been introduced in 1944. The sole important change during this period was to the School Certificate Examination in 1969, when single subject passes (up to a maximum of six) replaced the previous requirement for a group pass in English and three other subjects. The effect of this change on the retention rate, especially for girls, was marked. In 1971 48 per cent of both boys and girls who had entered secondary schools in 1968 were in their fourth year, compared with 35 per cent and 31 per cent respectively ten years earlier (Department of Education Curriculum Development Unit, 1972).

While the secondary qualifications of the New Zealand education system remained almost the same throughout this period, this was a period of debate about the curriculum, especially in maths and

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<sup>25</sup> The 1990 Work, Family and Well-Being (WFW) national survey of U.S. households included 2,031 respondents aged 18 to 90; the 1995 Aging, Status and the Sense of Control (ASOC) national survey of U.S. households included 2,592 respondents aged 18 to 95.

social studies (Openshaw, Lee & Lee, 1993). The 1944 Thomas Report had introduced a common core curriculum which included both practical and academic subjects, catering for a diversity of abilities, interests and backgrounds. This diluted the boundaries between academic and vocational approaches, good examples of which were the greater formalisation of trade apprenticeships and the 1949 introduction of ‘day-release’ classes for some apprentices (Dougherty, 1999).

Table 3.1

*Formal Qualifications provided by New Zealand State Primary and Secondary Schools 1871-2008*

| Qualification  | Start Year | End Year   | Awarded end of:<br>Year / Level |        |
|--|------------|------------|---------------------------------|--------|
| University of NZ Scholarship (pre 1944)              | 1871       | 1943       | 12                              | Form 6 |
| Proficiency  | 1878       | 1937       | 8                               | Std 6  |
| Junior Civil Service Examination                     | 1888       | 1912       | 10                              | Form 4 |
| University of NZ Matriculation                       | 1888       | 1943       | 11                              | Form 5 |
| Public Service Entrance Examination                  | 1912       | 1944       | 10                              | Form 4 |
| ‘Old’ School Certificate                             | 1934       | 1945       | 11                              | Form 5 |
| University Entrance                                  | 1944       | 2003       | 12                              | Form 6 |
| University (of NZ) Entrance Scholarship (post 1944)  | 1944       | 1990       | 13                              | Form 7 |
| ‘New’ School Certificate / Certificate of Attainment | 1946       | 2002       | 11                              | Form 5 |
| University Bursary                                   | 1966       | 2004       | 13                              | Form 7 |
| 6 <sup>th</sup> Form Certificate                     | 1969       | 2005       | 12                              | Form 6 |
| School Certificate – single subject pass             | 1969       | 2002       | 11                              | Form 5 |
| NCEA Level 1   | 2002       | continuing | 11                              | Form 5 |
| NCEA Level 2   | 2002       | continuing | 12                              | Form 6 |
| NCEA Level 3   | 2002       | continuing | 13                              | Form 7 |

Table 3.2

*Formal Attendance Certificates provided by New Zealand State Primary and Secondary Schools 1871-2008*

| Certificate                                     | Start Year | End Year | Awarded end of:<br>Year / Level |        |
|---|------------|----------|---------------------------------|--------|
| 4 <sup>th</sup> Form Intermediate Certificate   | 1914       | 1938     | 10                              | Form 4 |
| 5 <sup>th</sup> Form Lower Leaving Certificate  | 1914       | 1934     | 11                              | Form 5 |
| 6 <sup>th</sup> Form Higher Leaving Certificate | 1914       | 2002     | 12                              | Form 6 |
| Endorsed School Certificate                     | 1954       | 1969     | 12                              | Form 6 |
| Higher School Certificate                       | 1961       | 2002     | 13                              | Form 7 |

### 3.1.2 Tertiary Education in the 1960s and 1970s

By the 1960s’ when the first of the 2008 cohort of 40-64 year-olds were eligible to enter university, tertiary education in New Zealand had been well established, and was in a second round of expansion. Subsequent to the 1961 dissolution of the University of New Zealand’s sole degree-conferring powers (with its constituent colleges around New Zealand), the 1960s saw the independence of the six existing university-level institutions in their own right, along with the establishment of the University of Waikato.

Access to a university education in New Zealand was not only extended through the increase in the number of universities, but also through extra-mural degrees from Massey University. These allowed for part-time study for those in the full-time workforce, and for students isolated in rural areas or confined to their homes, as well as furthering the concept of ‘life-long’ education for older students (Davey, Neale & Matthews, 2003).

It was also a time when large numbers of new teachers were trained to cater for the large birth cohorts of the 1950s-60s which were filling the primary and secondary schools. Student numbers at the Teachers Colleges in the 1960s increased from 3,828 in 1960 to 7,587 in 1970 (Statistics New Zealand, 2008:194). Many of the 40-64 year-old respondents would have undergone either a teacher training during this period, or an up-skilling course in teaching through Massey University.

The 1960s saw a huge expansion in, technical institutes with legislation in 1963 legitimising the three institutions already established (Auckland Technical Institute, Wellington Polytechnic, Central Institute of Technology) and providing for new ones, with a common process being followed, for example, with the 1968 division of the Hamilton Technical College into Fraser High School and the Waikato Technical Institute. In 1970 30,000 students were enrolled in the two national and five regional institutes. Outside of the main centres, another 72,000 students were enrolled in similar vocational courses provided by the technical sections of high schools, and the Technical Correspondence Institute. By the mid-1970s, the new technical institutes had been well established alongside the universities and teachers' colleges in the tertiary sector (Dougherty, 1999).

A 1974 change in the law established community colleges, providing continuing education through vocational and non-vocational, full-time and part-time courses. The concept of lifelong education alongside vocational education began to develop, and with it significant growth in the number of institutions and students. By 1990, there were 25 technical institutes, polytechnics and community colleges in New Zealand.

Thus tertiary education grew enormously in the 1960s to 1980s through a multitude of different courses provided in a many locations throughout New Zealand, and in a variety of teaching styles. From the singular degree-awarding institution of the University of New Zealand up to 1961, tertiary education exploded into a diverse range of universities, teachers colleges, technical institutes/polytechnics and community colleges.

As a consequence of these changes, the 40-64 year-old cohort had considerable choice in tertiary and on-going education.

### 3.2 *Social Context and Academic Qualifications available to 5 year cohorts of 40-64 year-olds during their 'school years' (5-15 years)*

The 2008 cohort of 40-64 year-olds were of primary and secondary school age during the 1950s, 1960s and 1970s. Table 3.3 shows the five-year cohorts: 40-44 years; 45-49; 50-54; 55-59; and 60-64 years as a background to the social context of each cohort's education.

Table 3.3

*Time Period when 40-64 year-olds were of School Age: 5-15 years\**

| Age                      | Time Period      |                  |                  |                  |                   |
|--------------------------|------------------|------------------|------------------|------------------|-------------------|
| Birth year               | 1943-47          | 1948-52          | 1953-57          | 1958-62          | 1963-1967         |
| 5 years                  | 1948-52          | 1953-57          | 1958-62          | 1963-67          | 1968-1972         |
| 10 years                 | 1953-57          | 1958-62          | 1963-67          | 1968-72          | 1973-1977         |
| 15 years                 | 1958-62          | 1963-67          | 1968-72          | 1973-77          | 1978-1982         |
| Age in 2008 & weighted % | 64-60yrs (14.7%) | 59-55yrs (18.1%) | 54-50yrs (20.2%) | 49-45yrs (23.3%) | 44-40 yrs (23.7%) |

\*interviewed in 2008

The 1950s to 1970s was a period of relatively good economic times in New Zealand's history, and education was free and compulsory from 5-15 years. Traditionally education had tended to focus on primary and secondary education. With the dramatic increase in student numbers, whole new communities developed with new primary and secondary schools catering for those born in the two



decades after World War II – ‘the baby boomers’. These same students spilled over into tertiary education, where many were first-generation university or technical institute students, or were paid to learn to be teachers. As the economy boomed, the need for higher levels of expertise and skill increased.

Against this background, three age cohorts of 5 or 10-years can be identified:

- Those respondents who were 60-64 year-olds in 2008, and at school between 1948 and 1962, were largely educated during the 1950s. This was a boom period economically for New Zealand, and a period during which the Welfare State was consolidated. Social norms were in considerable flux, unemployment reached an all time low, and the population expanded rapidly. The changes already made in education, especially those arising from the 1944 Thomas Report, allowed for a greater uptake of educational opportunities by both boys and girls. Their school qualifications could include: ‘new’ School Certificate, University Entrance, and University Entrance Scholarship.
- The 50-59 year-old respondents in 2008 were of school age (5-15 years) between 1953 and 1972, largely during the late 1950s and 1960s. This was a period of enormous growth in school rolls and facilities. During this time, the leading edge of the ‘baby boomers’ moved through the primary and secondary school (the 1950s and 60s) to the tertiary system (1960s and 1970s). Because of the demand for teachers, teacher’s college students were paid. Educational opportunities also expanded at the tertiary level, especially through the increase in technical institutes and university education by correspondence. The increased numbers of students led to differing living arrangements (e.g. ‘flatting’), and many younger people travelled abroad after finishing their formal education. With the technical advances after World War II, there was a greater emphasis on science and technology at all levels of education, from more formal apprenticeships leading to nationally recognised trade certificates to university qualifications. Their school qualifications could include: School Certificate, University Entrance, University Entrance Scholarship and University Bursary.
- Those respondents who were 40-49 years in 2008 and at school between 1963 and 1982 were largely educated during the late 1960s and 1970s. This was a period of increasing recognition of the importance of education (and with it a continued increase in the numbers of students, especially at the tertiary level), increasing awareness of gender inequality in education, and a general broadening of education perspectives. For example, alternate educational philosophies and teaching methods were introduced at institutional and course level (more non-vocational subjects, especially in community colleges, and for adult students). Students were more frequently exposed to other educational providers, television became established, and increasingly young people (along with older members of the 40-64 year cohort) became involved in protest movements for social changes which the mass media had globalised. Their school qualifications could include: School Certificate (now in single subjects), University Entrance, University Entrance Scholarship, University Bursary, and 6<sup>th</sup> Form Certificate.

## **4. Methods**

### *4.1 Indicators of Education*

The questionnaire for the 40-64 year-old cohort asked three questions directly relating to education. They were:

- Year when first left school (Q182: In which year did you first leave school?)
- Highest qualification (Q183: What is the highest qualification that you have successfully completed?)
- Year of completion of highest qualification (Q184: In which year did you complete that qualification?)

From the first and third question and the birth date of the respondent, the age at which the respondent left school and the age at which the highest qualification was gained could be deduced.

A further question was asked about computer use for email and access to the internet (Q185: Do you currently use a computer to access email and/or the internet?)

Responses to the question about highest educational qualification were not pre-coded, but recorded in full, as neither the current Census coding of 'highest educational qualification' nor any other recognised coding of this variable includes the range of qualifications gained in New Zealand and overseas during this time. Only by examining the individual responses to this question could a coding schedule be developed, which was consistent with the qualifications of the time.<sup>26</sup>

#### *4.2 Indicator of Level of Wellbeing*

The indicator of overall wellbeing used in the analyses was the World Values Survey question (WVS) as reported in Appendix One.

#### *4.3 Analyses*

The analyses included frequency distributions where the differences between categorical variables were examined using chi-square tests. Weighted data were used.

## **5. Results**

### *5.1 Introduction*

The following findings examine the extent of the relationship between the three indicators of education (age when left school, highest qualification, and age at highest qualification) with the respondent's current age, gender, and birth country. The relationship between education and other variables, including computer usage, is then discussed. A further series of findings is concerned with the relationship between the indicators of education and satisfaction with education and with overall wellbeing. As appropriate, comparisons are made between these results for the 40-64 year-old cohort, and those for the 65-84 year-old cohort in the previous study (Koopman-Boyden & van der Pas, 2009).

### *5.2 Determinants of Educational Level*

#### *5.2.1 Age when Left School by Current Age (in 5 year groups)*

The length of education of respondents in each of the five age-groups is set out in Tables 3.4 and 3.5, and shows that the oldest cohort of 60-64 year-olds had a significantly shorter education than the younger cohorts.<sup>27</sup>

The 40-60 year-old respondents were more likely to leave school at 16 or 17 (with a dropout rate of 26.1% and 24.9% respectively for the 40-44 year-olds). The oldest 5 year age-group, the 60-64 year-olds, were more likely to leave at age 15 or 16 (23.3% and 23.3% dropout rate respectively). Consequently, by the age of 16, two-thirds of the 60-64 year-olds (68.3%) had left school, while only half the 40-44 year-olds (53.1%) had done so (see Table 3.5).

The oldest 5 year age-group was 15-16 years in 1962-63, boom times for New Zealand's economy, with labour and skills shortages and an unemployment rate of 0.5%, while the youngest cohort was 15-16 years in 1982-83 a period with more emphasis on skills and training, and high rates of

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<sup>26</sup> Advice on the timing, nomenclature and level of qualifications was provided by Associate Professors G. Lee and L. Moss, educational historians at The University of Waikato at the time, and a 4, 7 and 16 category coding schedule was devised.

<sup>27</sup> Chi-square = 73.22,  $p < .001$

unemployment (4.8% in December 1983), which tend to result in greater school retention (Department of Labour, 2009).

Table 3.4

*Age when Left School by Current Age (%)*

| Age Left School    | Age Category |       |       |       |       | Total |
|--------------------|--------------|-------|-------|-------|-------|-------|
|                    | 40-44        | 45-49 | 50-54 | 55-59 | 60-64 |       |
| Up to 12 yrs       | 5.7          | 3.4   | 3.2   | 2.4   | 1.8   | 3.5   |
| 13 yrs             | 1.6          | 1.4   | 2.9   | 2.7   | 5.9   | 2.6   |
| 14                 | 6.8          | 7.5   | 9.9   | 9.4   | 14.0  | 9.1   |
| 15                 | 12.9         | 17.9  | 15.3  | 18.3  | 23.3  | 17.1  |
| 16                 | 26.1         | 29.0  | 29.5  | 28.9  | 23.3  | 27.6  |
| 17                 | 24.9         | 26.8  | 22.8  | 21.5  | 18.5  | 23.4  |
| 18                 | 12.7         | 8.2   | 10.2  | 7.4   | 7.7   | 9.4   |
| 19 years and older | 9.3          | 5.9   | 6.2   | 9.4   | 5.5   | 7.3   |

$p < .001$

Table 3.5

*Age when left School by Current Age (Cumulative %)*

| Age Left School    | Age Category |       |       |       |       |
|--------------------|--------------|-------|-------|-------|-------|
|                    | 40-44        | 45-49 | 50-54 | 55-59 | 60-64 |
| Up to 12 yrs       | 5.7          | 3.2   | 3.4   | 2.4   | 1.8   |
| 13 yrs             | 7.3          | 6.1   | 4.8   | 5.1   | 7.7   |
| 14                 | 14.1         | 16    | 12.3  | 14.5  | 21.7  |
| 15                 | 27.0         | 31.3  | 30.2  | 32.8  | 45.0  |
| 16                 | 53.1         | 60.8  | 59.2  | 61.7  | 68.3  |
| 17                 | 78.0         | 83.6  | 86.0  | 83.2  | 86.8  |
| 18                 | 90.7         | 93.8  | 94.2  | 90.6  | 94.5  |
| 19 years and older | 100          | 100   | 100   | 100   | 100   |

$p < .001$

### 5.2.2. *Age when Left School by Gender*

Significant differences between the age at which boys and girls left school are obvious among the 40-64 year-olds, who were at school from 1948 to 1982 (see Table 3.6). Until age 16, girls left school earlier than boys, a trend which proved to be statistically significant.<sup>28</sup>

<sup>28</sup> Chi-square = 29.15 ,  $p < .001$

Table 3.6

*Age left School by Gender (% and Cumulative %)*

| Age Left School | Gender (%) |        | Gender (Cumulative %) |        |
|-----------------|------------|--------|-----------------------|--------|
|                 | Male       | Female | Male                  | Female |
| Up to 12        | 2.7        | 4.2    | 2.7                   | 4.2    |
| 13              | 2.8        | 2.6    | 5.5                   | 6.8    |
| 14              | 8.1        | 10.1   | 13.6                  | 19.6   |
| 15              | 15.5       | 18.6   | 29.1                  | 35.5   |
| 16              | 24.8       | 30.2   | 53.9                  | 65.7   |
| 17              | 27.3       | 19.6   | 81.2                  | 85.3   |
| 18              | 10.6       | 8.3    | 91.8                  | 93.6   |
| 19              | 8.2        | 6.4    | 100                   | 100    |
|                 | 100%       | 100%   |                       |        |

p&lt;.001

*5.2.3 Highest Qualification by Current Age (in 5 year groups)*

As with the variable 'age when left school', the variable 'highest qualification' showed a significant difference between the older and younger cohorts.<sup>29</sup> The 40-44 year-olds had significantly higher levels of education than the 60-64 year-olds (Table 3.7). The difference is evident at a very general level, as there is an increase in the percentage of respondents whose highest level of education was either secondary or university education. The percentage of respondents holding a vocational or trade qualification remained at about one third for all age groups (between 29% and 35.3%), while the percentage with a university qualification was highest for the 45-49 year-olds, (28.3%), least with the 60-64 year-olds (21.0%), and the same in the other three age groups (24.2%).

Table 3.7

*Highest Qualification by Current Age (%)*

| Level of Education            | Age Category |       |       |       |       |
|-------------------------------|--------------|-------|-------|-------|-------|
|                               | 40-44        | 45-49 | 50-54 | 55-59 | 60-64 |
| Up to primary education       | 6.3          | 7.1   | 9.3   | 12.4  | 13.0  |
| Secondary education           | 35.4         | 34.2  | 29.0  | 30.1  | 31.9  |
| Vocational or trade education | 34.1         | 30.4  | 35.2  | 33.3  | 34.1  |
| University qualification      | 24.2         | 28.3  | 24.2  | 24.2  | 21.0  |
|                               | 100%         | 100%  | 100%  | 100%  | 100%  |

p &lt; .05

*5.2.4 Highest Qualification by Age Left School*

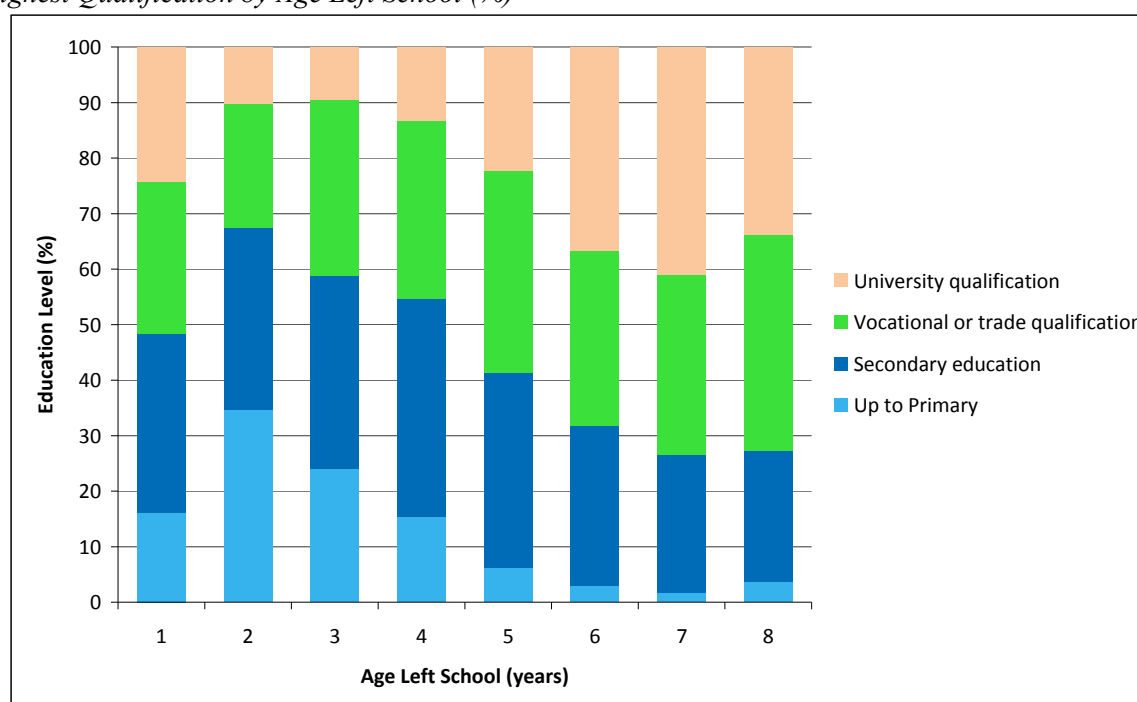
Figure 3.1 shows the level of education of those leaving at various ages who went on to acquire a higher qualification.

A university qualification is significantly associated with longer schooling.<sup>30</sup> Respondents who had a secondary education to the age of 17-19 were more likely to go to university (41% for 18 years, 36.5% for 17 years, and 33.8% for 19 year-olds). About one third of all respondents, regardless of the age they left school, acquired a vocational or trade qualification. The greatest percentage of respondents with a vocational/trade qualification had an education to the age of either 16 (36.5%) or 19 years (39%). Obviously, there are different entry requirements across the range of vocational and trade qualifications.

<sup>29</sup> Chi-square = 23.96 , p<.005<sup>30</sup> Chi-square = 230.3 , p<.001

From Figure 3.1, it will be seen that, of the 40-64 year-old respondents holding university or vocational/trade qualifications, 24.2% and 27.4% respectively left school by the age of 12 years. This is possibly explained by New Zealand's education policy which allows those over 21 years to enrol in tertiary institutions without the pre-requisite secondary education. As seen in Figure 3.3 many women gained their highest qualification in their 40s and 50s under this policy.

Figure 3.1  
*Highest Qualification by Age Left School (%)*



$p < .001$

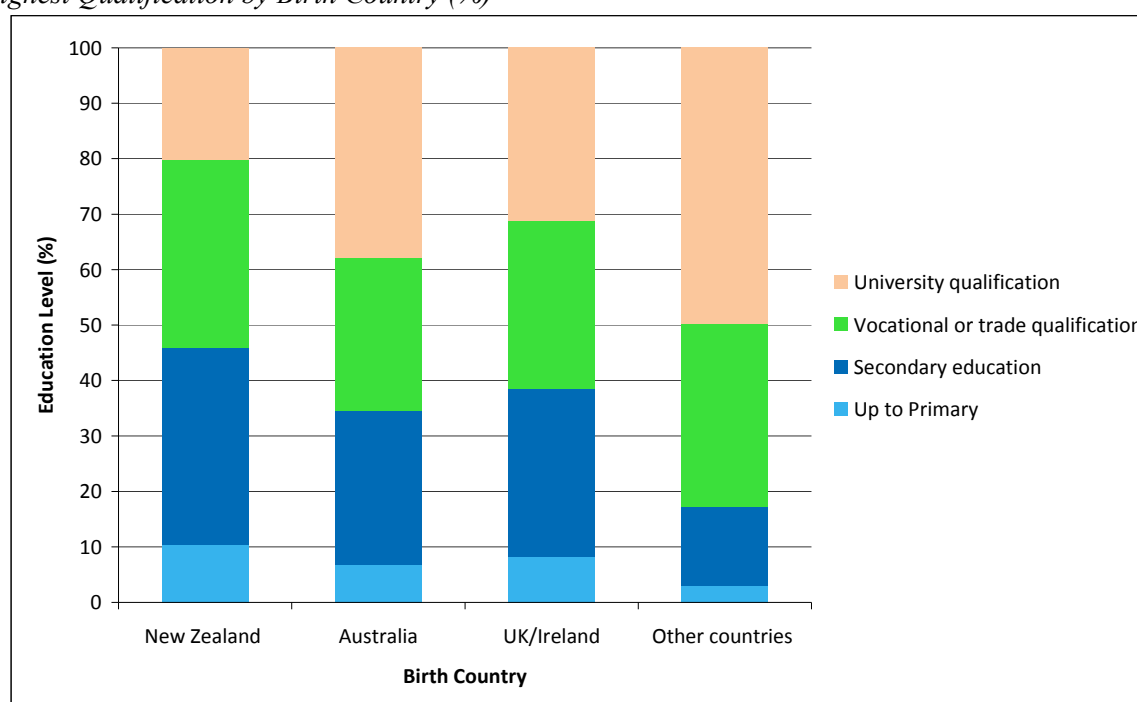
#### 5.2.5 Highest Qualification by Birth Country

Figure 3.2 shows the highest qualification of the respondents by their country of birth, grouped into four categories: New Zealand (76.4% of the respondents), Australia (1.6%), UK/Ireland (10.4%), and other countries (11.6%). The difference in qualifications among respondents from the four categories of countries was significant, with New Zealand having the lowest level of qualifications, and 'other countries' the highest.<sup>31</sup> This latter category included respondents from South Africa (2.1%), India (1.1%), U.S.A. (1%), Canada (0.8%), Netherlands (0.7%), Fiji (0.6%), Samoa (0.5%), Zimbabwe (0.4%), China (0.4%), and Philippines (0.4%).

Presumably, those who were born in other countries and migrated to New Zealand could have either been selected as adults for their higher qualifications, or as children had a greater interest in education than their New Zealand fellow students. The finding thereby raises the question as to whether New Zealanders were educated as highly during this time period (1950-1970s) as students in other countries.

<sup>31</sup> Chi-square = 115.6,  $p < .001$

Figure 3.2  
Highest Qualification by Birth Country (%)



$p < .001$

#### 5.2.6 Age at Highest Qualification by Gender and Current Age (%)

Significant differences are also apparent in the age of highest qualification by current age and gender.<sup>32</sup> Figure 3.3 shows a considerable diversity in the age of male and female respondents as to the age at which they received their highest qualification. Females, especially older women (60-64 year-olds), were more likely to receive their highest qualification in their earlier years (up to the age of 19 years), while males tended to continue at school up to age 24.

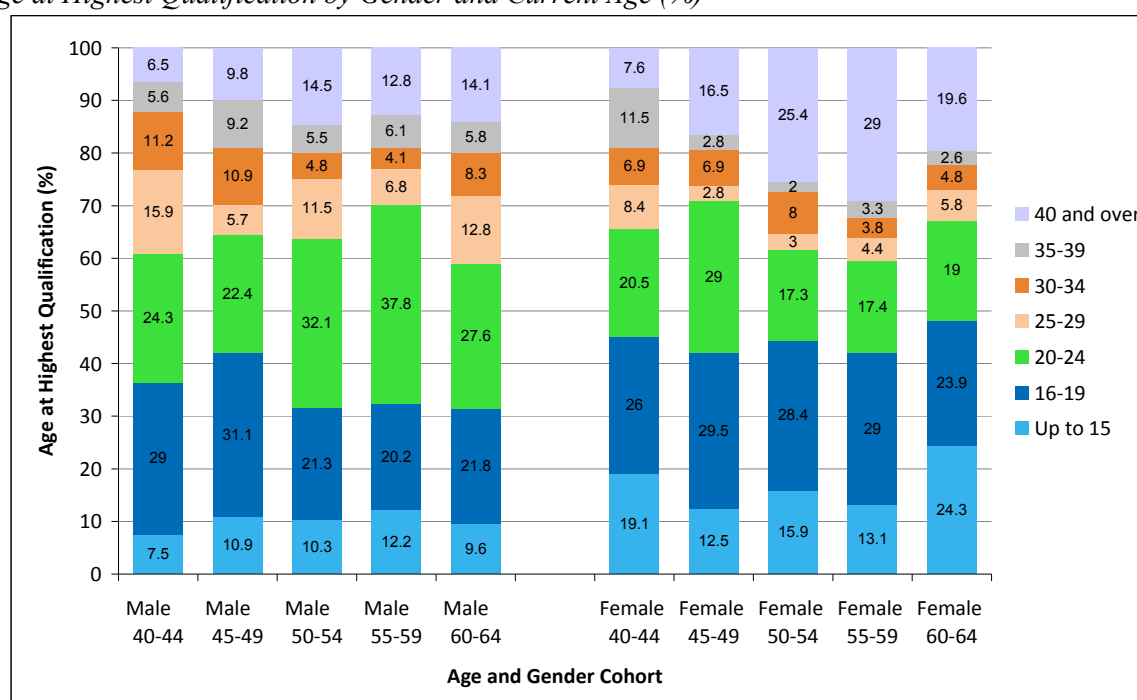
The most notable difference between men and women was in their 'second-time round education', where a large percent of women (but not men) received their highest qualification after age 40. Not all of the 40-64 year-old cohort had reached the age of 60-64 at the time of the survey, yet already 29% of the 55-59 year-old women had gained their highest qualification over the age of 40 years. Even within the youngest age-group of women (the 40-44 year-olds) 7.6% had already gained a higher education or qualification since they had turned 40.

The percentage of men who gained a higher qualification over the age of 40 tended to be considerably lower than that for women. For example, while 29% of the women had gained their highest qualification since the age of 40, only 14.1% of the men had furthered their education after 40.

A survey of 959 respondents aged 40+ who were undertaking university qualifications at Victoria University in 1999, notes that the main general motivation for their study was either work related (acquiring new knowledge or qualifications to improve job performance and prospects) or personal development and fulfilment (Davey, 2003). Where a specific reason was given, the most frequent reasons were reduced demands for childcare for women, and job loss or redundancy for men, along with the money becoming available, often through their employer. The EWAS findings can be viewed in a similar way.

<sup>32</sup> Male Chi-square = 41.49 ,  $p < .001$ , Female Chi-square = 73.18  $p < .001$

Figure 3.3  
Age at Highest Qualification by Gender and Current Age (%)



Male  $p < .015$   
Female  $p < .001$

### 5.3 Comparison of 40-64 year-olds and 65-84 year-olds on Age when Left School, Highest Qualification, Age of Highest Qualification by Age, Gender and Birth Country

The 40-64 year-olds attended school until an older age than the 65-84 year-old respondents. The difference is substantial (Koopman-Boyden & van der Pas, 2009).

There was, however, no significant difference in the level of *highest qualification* by age of the 65-85 year-olds, although the difference was significant within the 40-64 year-olds ( $p < .05$ ).<sup>33</sup> This meant that over the 40-84 year age range of the respondents there was a somewhat irregular trend towards a higher qualification among the younger respondents of the 65-84 year cohort; a steady increase in the proportion who had a university qualification (from 13.3% for 80-84 year-olds to 24.2% for 40-44 year-olds); and a modest variation in the attainment of vocational/trade education, increasing only from 29.6% for 80-84 year-olds to 34.1% for 40-44 year-olds.

Among 40-64 year-olds there was a significant relationship between the *age when they left school* and *gender*, in that girls left school earlier than boys (Table 3.6).<sup>34</sup> However, among the older sample of 65-84 year-olds, this relationship was **not** significant, that is, the length of schooling was approximately the same for both genders. The 65-84 year-olds were at school during the period 1932 to 1957.

Primary and secondary education inequality between boys and girls became apparent only in the later period of the 1950s to the 1970s for the 40-64 year-old cohort. This could have been because of perceived or actual unequal access to schooling, or different societal attitudes to the schooling of boys and of girls at that time. It could also have been caused by the well-documented push immediately after the Second World War to have women return to more traditional home-making roles, once they were no longer necessary in the paid workforce to maintain the war effort.

<sup>33</sup> Chi-square = 23.96,  $p < .005$

<sup>34</sup> Chi-square = 29.15,  $p < .001$

The age at which the respondents attained their highest qualification showed an interesting difference between the two surveys, and by gender. In general, of those who had received relatively low qualifications during their primary/secondary education, a greater proportion received higher qualifications in their middle and older years. This was not a significant result for the 65-84 year-olds, or for 40-64 year-old men, but it was a highly significant result for 40-64 year-old women, where a large number of the women had gained their highest qualification beyond the age of 40.<sup>35</sup> More research is necessary to understand this phenomenon, but it is likely to have at least three causes: changes in the labour market, which removed some of the discrimination against women; changes in education policy, with greater access to student loans to fund later-life tertiary study; and changes in attitudes to divorce and sole parenthood.

A comparison of the *highest qualification and birth country* of the respondents in the two cohorts shows the impact of immigration policy. Firstly the range of birth countries among the 40-64 year-olds is much wider than for the older age group, presumably an outcome of the non-discriminatory immigration policy introduced in 1986.

Secondly, among the sample of 40-64 year-olds differences in the highest qualifications from the various birth countries were significant,<sup>36</sup> while differences in their qualifications were **not** significant for the 65 – 84 year-olds. This is a possible illustration of New Zealand's policy on immigration, which since 1991 has operated a points system, where those applying for migrant status are awarded points according to a variety of criteria, including education. Those with a higher level of educational qualifications are more likely to be given migrant status, as is shown among the 40-64 year-olds who migrated since 1991. Some countries will have the majority of their immigrants enter under the points system, while longstanding source countries may also have immigrants who enter in the 'family reunification' category, and with lower educational qualifications.

#### 5.4 *Relationship of Education with Other Variables*

As reported elsewhere in this report, there was a significant relationship between education and other variables. The relationship between education level and personal income was significant, as was education level (or highest qualification) and household income. However, the relationship between education level and self-rated health was not significant.

##### 5.4.1 *Computer Usage by Highest Qualification, Gender and Age*

Responses to the question "Do you currently use a computer to access email and/or the internet?" were used as an indicator of whether those with a higher level of education were more likely to use computers.

83.9% of the 40-64 year-old respondents used a computer to access email and/or the internet. There was a systematic relationship between educational level and computer use – the higher the level of education the more a computer was used. The result was significant.<sup>37</sup> Figure 3.4 shows that 66.7% of those with a primary education used a computer, compared with 95.8% of those with a university qualification.

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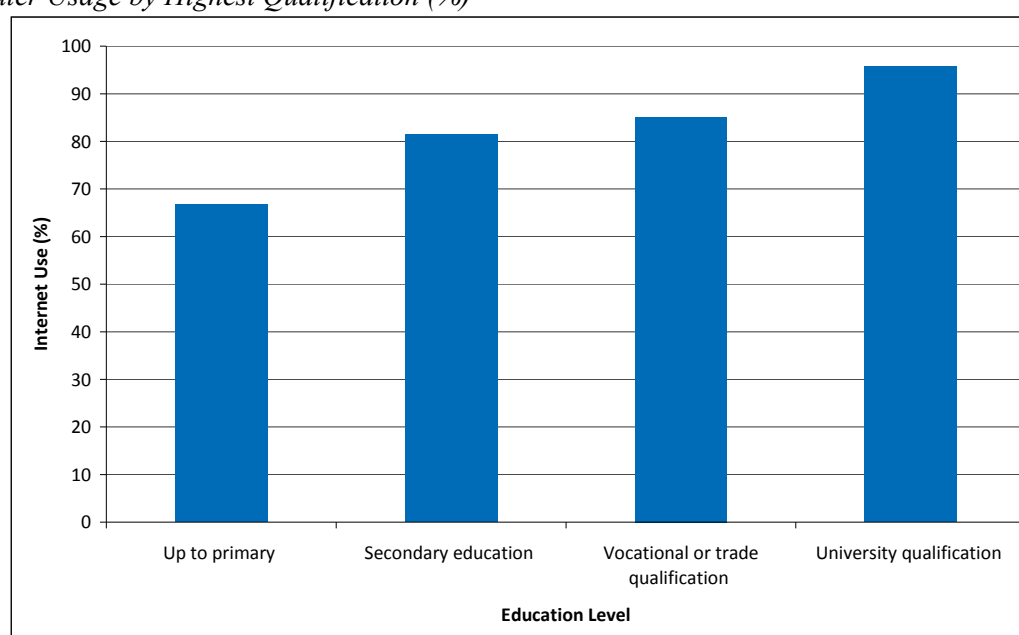
<sup>35</sup> Chi-square = 73.18  $p < .001$

<sup>36</sup> Chi-square = 115.6,  $p < .001$

<sup>37</sup> Chi-square = 95.04,  $p < .001$



Figure 3.4  
Computer Usage by Highest Qualification (%)



$p < .001$

Gender and age were also significant in computer use, with women being more likely to use a computer than men<sup>38</sup> (with the exception of men with a vocational/trade qualification) (see Table 3.8). Younger respondents were more likely to use a computer than older respondents, so the respondents with the highest usage of computers were those in the 40-44 year age group who held a university qualification (99.1%). However, 95% of the 55-59 year-olds who had a university qualification used a computer. Computer use among the 40-59 year-old age group with university level education was almost universal.

Table 3.8  
Computer Usage by Highest Qualification by Gender and Age (%)

|        |        | Education level |           |                  |            |
|--------|--------|-----------------|-----------|------------------|------------|
|        |        | Up to primary   | Secondary | Vocational/Trade | University |
| Gender |        |                 |           |                  |            |
| -      | Male   | 61.8            | 78.8      | 85.2             | 95.2*      |
| -      | Female | 70.4            | 83.3      | 84.7             | 96.0       |
| Age    |        |                 |           |                  |            |
| -      | 40-44  | 72.4            | 84.0      | 89.7             | 99.1**     |
| -      | 45-49  | 68.8            | 91.9      | 88.0             | 96.0       |
| -      | 50-54  | 62.9            | 80.4      | 82.4             | 95.0       |
| -      | 55-59  | 64.3            | 82.4      | 77.9             | 96.3       |
| -      | 60-64  | 69.4            | 76.4      | 85.1             | 89.7       |

\* $p < .05$ , \*\* $p < .001$

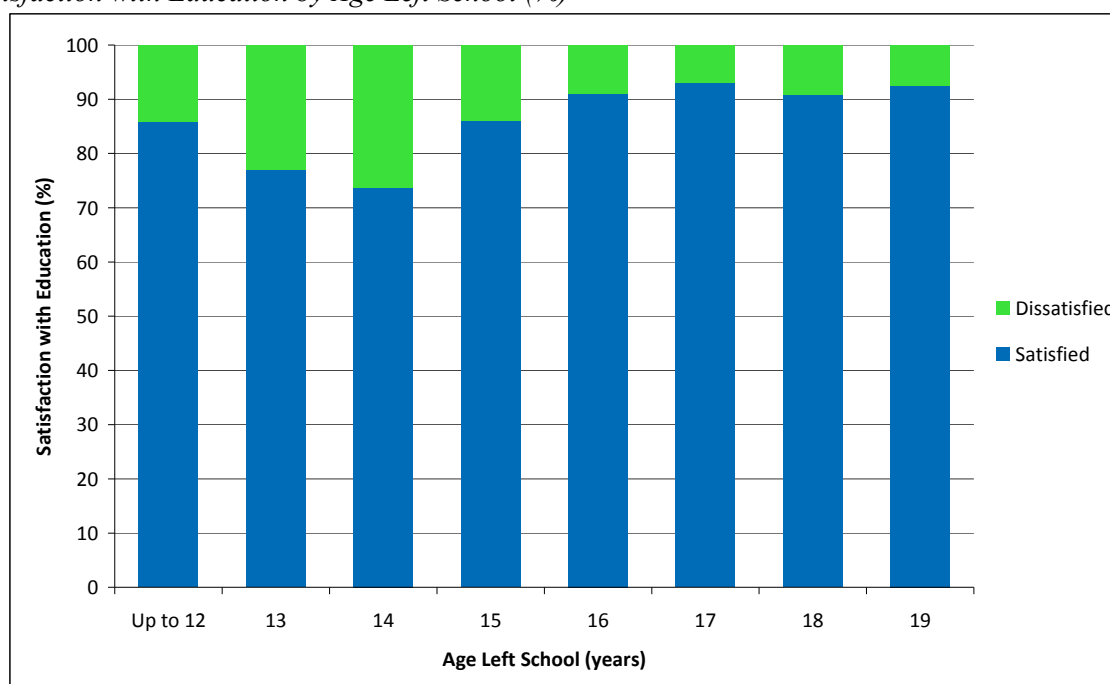
### 5.5 Relationship between Indicators of Education and Satisfaction with Education

Significance levels were tested between the three indicators of education (age when left school, highest qualification, and age at completion of highest qualification) and satisfaction with education. Each of these indicators were found to have a positive relationship as shown in Figure 3.5 (with age left school,  $p < .001$ ), Figure 3.6 (education level,  $p < .001$ ) and Figure 3.7 (age at completion of highest qualification,  $p < .001$ ). Those who left school at an older age (after 15 years) had a higher

<sup>38</sup> Male Chi-square = 54.65 ,  $p < .001$ , Female Chi-square = 41.72 ,  $p < .001$

level of satisfaction with their education than those who had left at younger ages (see Figure 3.5), although those who had left school before 12 years old were as satisfied as 15 year-old leavers.

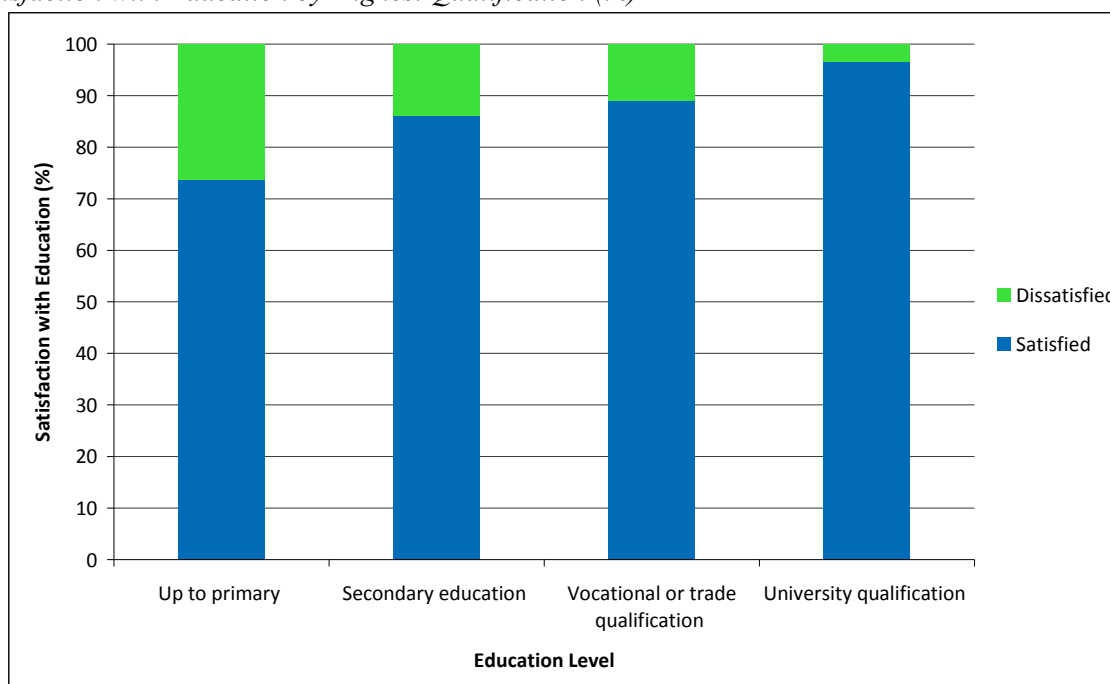
Figure 3.5  
*Satisfaction with Education by Age Left School (%)*



$p < .001$

The respondents who had the highest level of education (a university qualification) had the highest level of satisfaction with their education (96.6%), in contrast to those with only a primary education, who had a much lower level of satisfaction (73.8%) (see Figure 3.6).

Figure 3.6  
*Satisfaction with Education by Highest Qualification (%)*

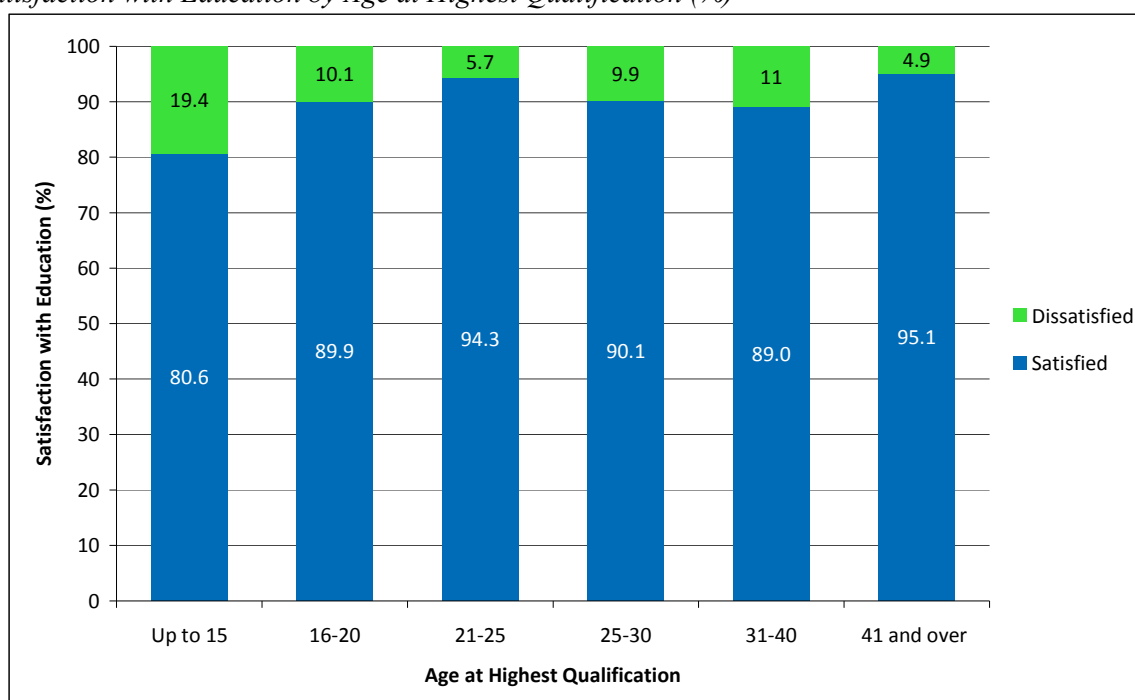


$p < .001$

With respect to their satisfaction with education by the age at completion of their highest qualification, those respondents who had received their highest qualification most recently i.e. since the age of 40, were the most satisfied with their education (94.8%), followed by those who had received it when they were 20-24 years old (92.7%) (see Figure 3.7). The least satisfied were respondents who received their highest qualification up to the age of 15 (20.4%), and the least dissatisfied were those whose most recent qualification had been gained at an age of 40+ (5.2%). Thus the respondents who had the most recent, or up-to-date qualifications, were the most satisfied, while those who had not undertaken any on-going education were the most dissatisfied with their education. This hypothesis will need to be cross-checked against the level of highest qualification, as it may simply be the case that those with university qualifications are the most satisfied, and these qualifications tend to be acquired between 21 and 25, or as 'second chance' qualifications after 40.

Figure 3.7

*Satisfaction with Education by Age at Highest Qualification (%)*

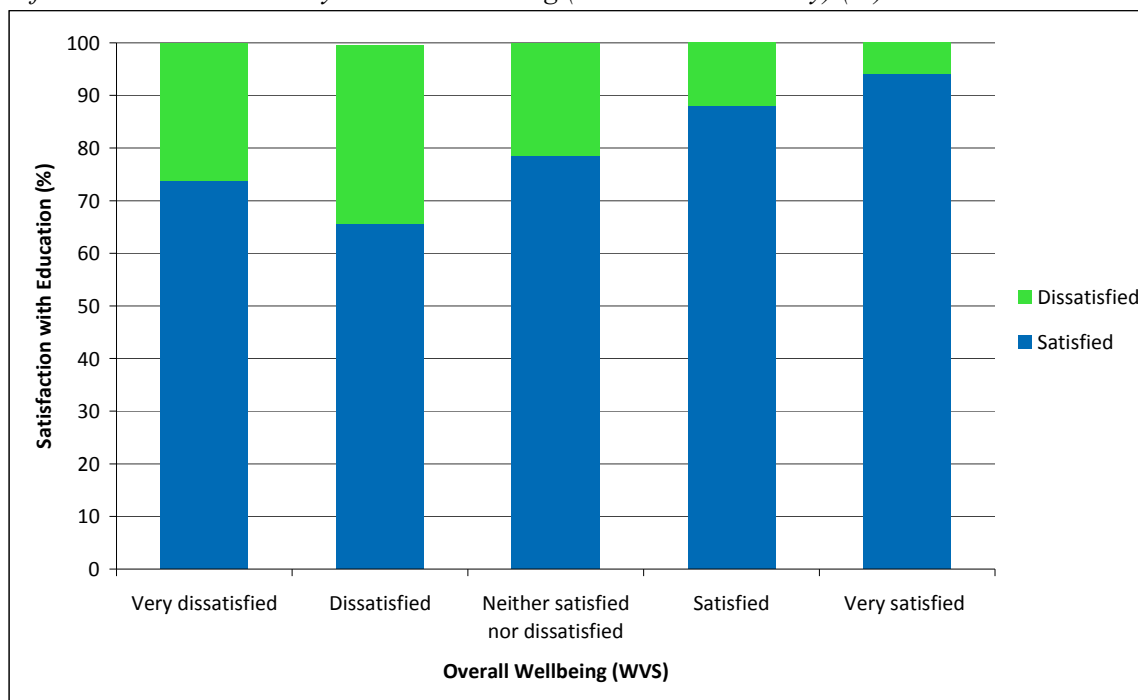


#### 5.6 Relationship between Satisfaction with Education and Overall Wellbeing

There was a significant relationship between the respondent's satisfaction with education and their overall wellbeing, measured by the indicator from the World Values Survey (see Figure 3.8).<sup>39</sup> Those respondents who were 'very satisfied' with their level of overall wellbeing also had the highest satisfaction with their education (94.1%).

<sup>39</sup> Chi-square = 77.62,  $p < .001$

Figure 3.8  
*Satisfaction with Education by Overall Wellbeing (World Values Survey) (%)*



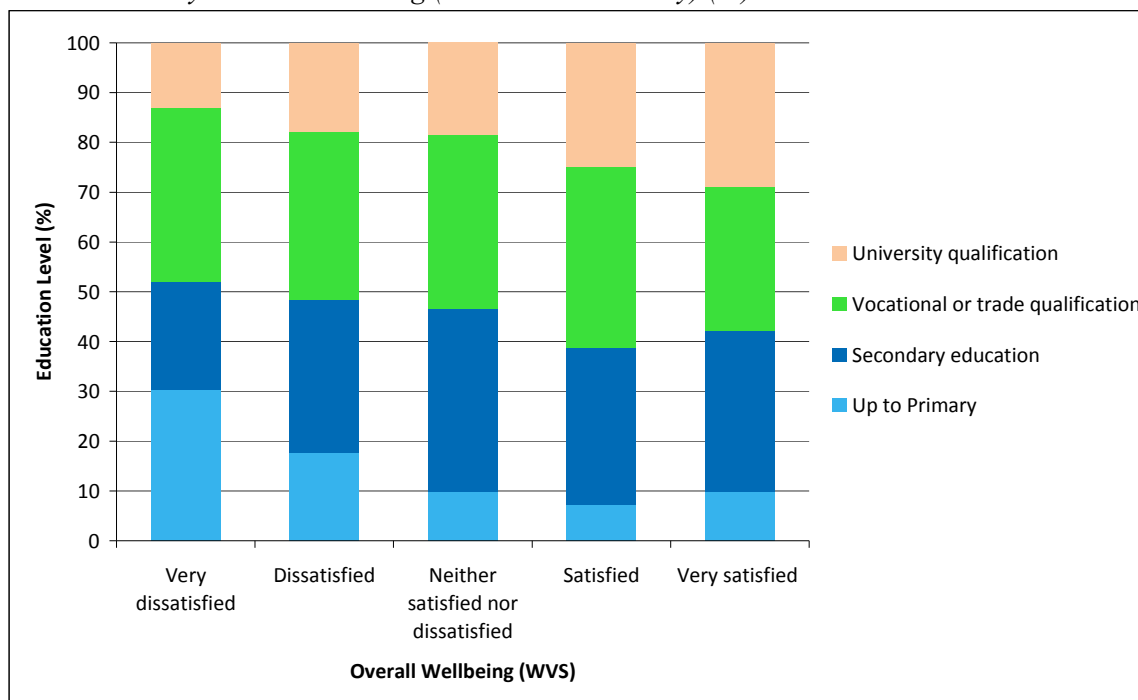
$p < .001$

#### 5.7 Relationship between Education Indicators and Overall Wellbeing

The significance levels were tested between the three indicators of education: age when left school ( $p < .01$ ), highest qualification ( $p < .001$ ), and age at completion of highest qualification ( $p < .05$ ), with the level of overall wellbeing. All of these were found to be significantly related (significance levels in brackets).

As an illustration of this direct relationship, the relationship between the highest qualification and overall wellbeing is shown in Figure 3.9. The extremes in satisfaction/dissatisfaction can be clearly seen, in that those respondents who were the most dissatisfied with their overall wellbeing were more likely to have had only a primary education (30.4%), whereas those respondents who were the most satisfied with their overall wellbeing were more likely to have had a university qualification (28.9%). In the same way, the other two indicators of education are related to wellbeing, in that those respondents most satisfied with their overall wellbeing were more likely to be older when they left school or when they completed their highest qualification.

Figure 3.9  
Education Level by Overall Wellbeing (World Values Survey) (%)



$p < .001$

## 6. Conclusion

It is clear from these results that education plays an important part in the lives of 40-64 year-old New Zealanders. The age at which the respondents left school rose for the younger members of the cohort, the level of their education increased and with it the age at completion of their final qualification. In turn, each of these indicators of education was positively related to satisfaction with their education, and with their overall wellbeing. As successive cohorts of the middle-aged sought further education, their overall wellbeing increased with it.

Within this relationship however there were some differences. Over the time of the 40-64 year-old's primary/secondary education, female students were likely to leave school earlier than male students, a different result from the 65-84 year-olds, where there was not a significant difference in the overall education of the boys and girls. This suggests that gender inequality in education increased during the time when the 40-64 year-olds received their schooling, i.e. in the 1950s, 60s and 70s.

A proportion of the respondents in both age cohorts received higher qualifications in their middle and older years. This was not a significant result for the 65-84 year-olds, but it was a significant finding for the 40-64 year-olds, especially the women, where, for example, 29% of the 55-59 year-old women gained their highest qualification over the age of 40 years. This notable 'return to education' among the middle-aged women as compensation for their previous low level education or as part of their move back into the workforce, may also signal an on-going interest in maintaining their education level through into their older years.

Finally, an interesting difference was found between the two age groups with respect to the impact of education on overall wellbeing. For the middle-aged 40-64 year-olds, where their education was relatively recent, and perhaps even continuing, education had a direct relationship with their overall wellbeing, as well as influencing other important aspects of their lives. This was seen in the significant relationship between their education and their satisfaction with that education (education

wellbeing) and also with their overall wellbeing. As well, there was a significant relationship between their satisfaction with education and overall wellbeing.

Conversely, for the older generation of 65-84 year-olds, who were at school 55-75 years prior to the research, the relationship of the indicators of their education with their overall wellbeing was **not** significant, yet these same indicators were related to their income, participation in work after retirement, health, leisure and recreation, social contacts with other people, computer usage and participation rate in organisations. Thus, for older New Zealanders, whose compulsory schooling was 'time-distanced' from their current experience, education had little direct significance on their overall wellbeing. Instead, it impacted on more specific aspects of their lives, which in turn could have an influence on their overall wellbeing.

The difference in the importance of education in the lives of these two cohorts of New Zealanders shows a societal change which occurred in the post-war years in the value of education. While education for the 65-84 year-olds was important in finding jobs, and in later life had a continuing impact on their health, income and social connectedness, it was no longer central to their overall wellbeing.

Thus, over time, educational qualifications have become much more of a marker of social status, as well as an entry requirement for many more occupations in New Zealand in the last twenty years. As well, more people accept the need, and the value, of continuing education. Both of these factors have had an impact on the middle-aged group, for whom education remains associated with their overall wellbeing. Tesch-Romer, Motel-Kingebiel and von Kondratowitz summarised it thus, "Education is important not only for improving labour force participation and income levels for individuals and a general societal productivity at the macro level, but also for the maintenance of a good quality of life" (2002: 277).

Such a finding emphasises the importance of education to younger generations currently in the school system, as well as the importance of continuing opportunities for education for middle-aged and older generations throughout their life course.

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# **Chapter 4: Work, Retirement Intentions, and Wellbeing among New Zealanders in Midlife**

Michael P. Cameron and Charles Waldegrave

## **1. Introduction**

Work, both paid and unpaid, is a key part of the lives of New Zealanders. Paid employment provides much of the resources that are used to generate a standard of living, and, as the Ministry of Social Development (MSD) notes in the Social Report, New Zealand's prosperity reflects the efforts of generations of past New Zealanders (Ministry of Social Development, 2007).

In New Zealand, MSD identifies paid work as having an important role in social wellbeing because it:

“...provides people with incomes to meet their basic needs and to contribute to their material comfort, and gives them options for how to live their lives. Paid work is also important for the social contact and sense of self-worth or satisfaction it can give people...” (Ministry of Social Development, 2007: 44).

The New Zealand workforce is ageing, and so it is important to develop an understanding of the work experience and retirement intentions of New Zealanders in midlife. The importance of these factors and their associations with satisfaction with work and overall wellbeing cannot be understated, as they will become important in the coming years as this demographically large group of midlife New Zealanders transition into older age and retirement.

This chapter summarises the lifetime work experiences of New Zealanders aged 40-64 years, and presents analyses of their associations with ‘satisfaction with work’ and with overall wellbeing, using data from the EWAS project. Where appropriate, this chapter also compares results with those from an earlier survey of New Zealanders aged 65-84 (Cameron & Waldegrave, 2009). Section 2 presents a brief review of the international and New Zealand literature linking work and wellbeing in midlife, while Section 3 briefly discusses the changing context of work and retirement experienced by New Zealanders currently aged 40 to 64 years. Sections 4 to 6 present the data and method, the findings and discussion, and the conclusions.

## **2. Work, Retirement and Wellbeing**

In social psychology, work has clearly been established as a determinant of life satisfaction (see for example Jahoda, 1982), and employment status has also been shown to affect wellbeing (Warr, 1999). For instance, the unemployed may have significantly lower life satisfaction (Murphy & Athanasou, 1999; Warr, Jackson & Banks, 1988). In the United States, these relationships between work and wellbeing appear to hold true not only for people in prime working age, but also among older people (see for example, Kim & Feldman, 2000; Reitzes, Mutran & Fernandez, 1996).

Work-life balance has also been a significant focus of much of the literature on work and life satisfaction or wellbeing (Haworth & Lewis, 2005; O’Driscoll, Brough & Kalliath, 2004). Changes in the nature of work over time have affected the balance between work and home life, often with adverse consequences for the wellbeing of the worker (Sennett, 1998). Work has not only direct effects on wellbeing, but also indirect effects through income generation and impacts on physical health (Sparks et al., 1997).



Satisfaction with work is therefore an important dimension of overall wellbeing. For instance, although Warr et al. (2004) argue that work status itself is not important for life satisfaction, they suggest that satisfaction with the role (whether retired or employed) is important. Where the work status role is forced rather than voluntary, they found that life satisfaction is lower. Supporting this, Siegrist and Wahrendorf (2008) found that quality of employment was strongly associated with wellbeing in the Survey of Health, Ageing and Retirement in Europe (SHARE) study. Quality of employment included the level of control participants had over their work and a positive or equivalent relationship between effort and reward. A low quality of employment was associated with poor health and depression. Furthermore, Palmore et al. (1985) showed that early retirement had negative psychological effects. In contrast, early retirees have been found to report higher levels of life satisfaction (Herzog, House & Morgan, 1991).

Retirement intentions are a significant factor that needs to be considered in any analysis of work and wellbeing among people in midlife. International research based on the U.S. Health and Retirement Survey, and the U.S. Retirement History Survey, shows that people make retirement plans and generally stick to them (Berheim, 1989; Benitez-Silva & Dwyer, 2002). Retirement plans are typically based on the institutional environment facing each individual, and these plans typically change only as the institutional environment changes or in response to an unanticipated shock (Cobb-Clark & Stillman, 2006). The unanticipated shock that has the largest effect on retirement plans, causing unexpected retirement, is poor health (Benitez-Silva & Dwyer, 2002; Wilkins, 2004). For instance, McGregor and Gray (2003) report that many older New Zealanders intend to continue working as long as they are physically able.

Studies also show that decisions concerning retirement are often affected by the availability of pension schemes and other forms of retirement income; people respond to financial incentives. Brugiavini, Croda and Marriuzio (2008) in the SHARE study found that in the European countries where there is a generous retirement welfare system or early retirement is allowed, early retirement is more prevalent. They noted that this resulted in an 'unused labour capacity' of healthy individuals not in the workforce in countries like Austria, Italy and France. Banks and Tetlow (2007) in the English Longitudinal study of Ageing (ELSA) noted that men in particular respond to financial incentives for retirement in private pension plans. Those who are members of defined benefit pension schemes are more likely to cease full-time employment than those who are members of defined contribution schemes. Applying the same logic, they also stated that the increase in the female State Pension Age from 60 to 65 in the UK is expected to encourage more workforce participation.

A recent Treasury working paper (Hurnard, 2009) showed that being eligible for New Zealand Superannuation (NZS) lowered labour force participation for men by 21 percent and for women by 7 percent. Additionally for women, there was a drop of 11 percent in work force participation a few years before the age of eligibility was reached. The study showed four features of the NZS scheme encouraged workers to remain in the labour force longer than in most other countries: (i) there is no legal impediment to continued work; (ii) NZS is not work or income tested; (iii) there is no early eligibility option; and (iv) public pension policy has tended to crowd out private provision, therefore as the eligibility age increased, workers had no option but to work longer. The working paper concludes that the results indicate a generally encouraging picture of New Zealand's pension system with regard to continuing active engagement and positive ageing.

### **3. The Changing Context of Work and Retirement in New Zealand<sup>40</sup>**

A consideration of the changing social context of work and retirement in New Zealand is important where there is a likelihood that satisfaction with work and work roles and their association with overall wellbeing may be related to social norms concerning work and retirement. The midlife New Zealanders surveyed for this research were born between the mid 1940s and the late 1960s, and would

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<sup>40</sup> Parts of this section are drawn extensively from the discussion in Cameron and Waldegrave (2009).

have entered the workforce from the late 1950s. By 2007, most of them remain in the workforce. Their working life has occurred during a period of significant change in both the social norms around work and retirement, and the policy environment. Societal changes have included increasing labour force participation among women, supported by decreases in fertility and policies such as subsidised childcare and the outlawing of gender discrimination. These, along with increasingly family-friendly employment practices, have contributed to increased labour force participation by women in most developed countries (OECD, 2006).

The nature of work and the employer-employee relationship have also changed significantly. When the older cohorts among this age group entered the workforce, they joined a workplace environment where there were very low unemployment rates and greater predictability in the labour market. There was more of a tendency for workers to remain loyal to their employers, and the employers were more likely to provide employment security. Under these conditions, people worked for only a few organisations across their career and responsibility for career development was left in the hands of the employer (Sullivan, 1999). However, during their working life the nature of careers has significantly changed. Reward has shifted from loyalty-based to skills-based, and career management had become the responsibility of the worker themselves (Sullivan, 1999). To some extent, these changes have been forced as a result of the increased pace of technological change, and the employer's need for their employees' skills to keep pace with change. Furthermore, gradual de-unionisation has reduced an important disincentive for employers to use redundancy. The economic restructuring of the 1980s and 1990s resulted in significantly increased unemployment, particularly among those aged over 50, but also amongst younger workers (McGregor, 2005).

There have also been many significant policy changes over the period since the 1950s, many of which were designed to reduce the disincentives for older people to continue in paid work. Pensions and national superannuation have been restructured several times, and the provision of private superannuation schemes has significantly declined. There have also been several recent changes that are likely to affect work and retirement decisions, and the retirement aspirations of those currently working. These include the Human Rights Act 1993 that prevented age discrimination, the increase of the age of eligibility for New Zealand Superannuation from 60 to 65 years (phased in between 1992 and 2001), the removal (in 1998) of surcharges from extra income earned while receiving national superannuation (surcharges had been introduced in 1985, along with the removal of tax incentives for superannuation savings), the abolition of compulsory retirement from both the public and private sectors (in February 1999), and the recent introduction of the Kiwisaver retirement savings scheme (in 2007). These changes have reduced some of the incentives for retirement (or disincentives for continued work) among older workers, and may have also affected the retirement intentions and aspirations of workers currently in midlife.

The 1980s and early 1990s was a period of extensive economic restructuring of the New Zealand economy, accompanied by periods of high unemployment and discouragement of workers. The youngest of the cohorts in this sample may not have entered the workforce until very late in the restructuring period and may have experienced only the decreasing periods of unemployment since then. The oldest of the cohorts in this sample will likely have been in the workforce during the entire economic restructuring, and will have felt most of its effects.

There were also important differences between men's and women's attachment to the labour market over this period. McPherson (2005), in a study of gender and age differences in labour market participation rates in New Zealand, found the midlife cohort aged 45 – 64 had spent a greater proportion of their life (over the age of 15) in full-time work (96 percent for men, 27 percent for women) than the older cohort (those aged over 65: 92 percent for men, 20 percent for women) or younger cohort (83 percent for men, 25 percent for women). Women frequently entered and left and then re-entered the full-time workforce. For those aged 45-64, they left the workforce (around ages 25-29) earlier than the younger cohort (at around 30-34) and re-entered it at a similar age in their lives, 45-49. The older cohort did not return to the workforce once they had left it at ages 25-29. The

study concluded that the years of prime family responsibility and prime labour force participation coincided, creating an obvious conflict.

Finally, there is the question of the New Zealand government's commitment to universal national superannuation as the baby boom generation approaches the age of eligibility. Currently there is a commitment to maintain both the current levels of superannuation and the age of eligibility at 65. However, the Government has decided (English, 2009) to suspend automatic contributions to the New Zealand Superannuation Fund. The Fund's aim was to equalise tax contributions to pensions through time, so that each generation effectively makes roughly the same tax contribution to their pensions through until 2050. Some countries, such as the United States and the United Kingdom, have already raised, or indicated that they will raise, the age of eligibility for old age pensions. However this creates problems for manual workers who are simply not able to continue working in that type of work later in life, and for groups with lower life expectancy, like Māori and Pacific people in New Zealand. The jury is out as to just how future New Zealand governments will cater for the baby boom generation, but it is clear from the studies noted in the previous section that whatever decisions are made, any changes will create their own incentives and disincentives around work, savings and retirement.

#### **4. Data and Method**

The data used as indicators for work in the EWAS survey were derived from questions about three phases of the working lives of respondents: (i) their first main job; (ii) their most recent main job; and (iii) their retirement intentions. Data were also collected about significant absences from the workforce (of more than six months duration), and retirement savings.

Given the significant changes in the social context of work noted above, the observed differences between the five five-year age cohorts within the sample (40-44 years, 45-49 years, 50-54 years, 55-59 years, and 60-64 years) are of particular interest, as are comparisons with the earlier sample of people aged 65-84 reported in Cameron and Waldegrave (2009). The differences between men and women are also important, and some variables were further analysed in relation to education, marital status and the respondents' number of children.

A subjective measure of satisfaction with work was the dichotomous response (satisfied/not satisfied) to a question of whether the respondent was satisfied with work, similar to that used for the other dimensions of wellbeing in this study and the same as that used in the earlier survey of older people (Cameron & Waldegrave, 2009). There were no objective measures of work satisfaction included in the survey.

The tables and figures below summarise these results. They do not include non-responses, don't knows, or refusals, so that frequency totals may not be the same between different tables. The data have been re-weighted to make the results more representative of the New Zealand population aged 40-64, as noted in Chapter 1. Therefore, only relative frequencies are reported in the tables and figures.

#### **5. Results and Discussion**

##### *5.1 Midlife New Zealanders' Lifetime Experience in the Workforce*

There was very little difference by age and gender in the employment status of the respondents in their first main job.<sup>41</sup> Of the midlife New Zealanders surveyed, the first main job for nearly everyone

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<sup>41</sup> There were no statistically significant differences between employment status and age cohorts or gender. F-test statistics have p-values of 0.0202 for age cohorts, 0.2460 for gender. The F-test statistic for age and gender combined is 0.0001,

was in full-time paid work (over 93.5 percent), with just over 5.1 percent in part-time paid work and about 0.5 percent in full-time unpaid family or farm businesses. This contrasts with older New Zealanders, where the first main job was part-time paid work for less than two percent (Cameron & Waldegrave, 2009), and this difference likely reflects gradual changes over time in the type of employment offered to new entrants into the labour force.

There were significant differences in current or most recent employment status by both age cohort and gender (see Table 4.1).<sup>42</sup> Paid employment was very high, with over 78 percent of midlife New Zealanders being in either full-time paid work or part-time paid work. Women were significantly more likely than men to currently be homemakers or in part-time paid work, and less likely to be in full-time paid work. Women were also more likely to be in voluntary work as their current or most recent main job, although the overall incidence of voluntary work, as an employment status category, was low at less than 1.5 percent of the sample. By age cohort, full retirement was more prevalent among older cohorts, and full-time paid work was less prevalent. These results are very similar to those observed among older New Zealanders' main job during midlife, although the proportion of older people whose main midlife employment status was full-time paid work was higher at 70.9 percent, and the proportion whose main midlife employment status was part-time paid work was lower at 9.7 percent (Cameron & Waldegrave, 2009).<sup>43</sup>

Table 4.1

*Employment Status of Current or Most Recent Main Job by Gender and Age (%)*

|                                      | Male<br>40-44 | Male<br>45-49 | Male<br>50-54 | Male<br>55-59 | Male<br>60-64 | Female<br>40-44 | Female<br>45-49 | Female<br>50-54 | Female<br>55-59 | Female<br>60-64 | Total |
|--------------------------------------|---------------|---------------|---------------|---------------|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------|
| Fully retired                        | 0.0           | 0.2           | 0.4           | 0.5           | 1.0           | 0.3             | 0.2             | 0.5             | 1.1             | 1.9             | 5.9   |
| Full-time<br>paid work               | 9.9           | 9.2           | 7.6           | 6.1           | 3.5           | 4.5             | 5.2             | 4.5             | 3.3             | 2.1             | 56.0  |
| Part-time<br>paid work               | 1.0           | 0.8           | 0.9           | 1.3           | 1.6           | 4.4             | 3.8             | 3.3             | 3.4             | 2.1             | 22.4  |
| Homemaker                            | 0.2           | 0.0           | 0.2           | 0.0           | 0.1           | 1.6             | 0.7             | 0.6             | 0.4             | 0.2             | 4.0   |
| Voluntary<br>work                    | 0.1           | 0.0           | 0.1           | 0.1           | 0.1           | 0.2             | 0.1             | 0.2             | 0.2             | 0.4             | 1.5   |
| FT unpaid<br>family/farm<br>business | 0.3           | 0.7           | 0.3           | 0.7           | 0.5           | 0.6             | 1.0             | 0.6             | 0.2             | 0.5             | 5.5   |
| PT unpaid<br>family/farm<br>business | 0.0           | 0.0           | 0.1           | 0.2           | 0.1           | 0.3             | 0.4             | 0.1             | 0.2             | 0.1             | 1.5   |
| Other                                | 0.1           | 0.3           | 0.3           | 0.1           | 0.4           | 0.5             | 0.6             | 0.5             | 0.3             | 0.1             | 3.2   |
| Total                                | 11.5%         | 11.2%         | 9.9%          | 9.0%          | 7.3%          | 12.3%           | 12.0%           | 10.2%           | 9.1%            | 7.5%            | 100%  |

Note: FT means Full-time and PT means Part-time.

Using the eight occupational groups in the Australian and New Zealand Standard Classification of Occupations (Trewin & Pink, 2006), some differences emerged between respondents' first main job

although this significance is driven by the small numbers of respondents whose first main job was unpaid family or farm work, or 'other', as omitting these categories (about 0.5 percent of respondents) makes the differences insignificant.

<sup>42</sup> F-test statistics have p-values of <0.0001 for age cohorts, <0.0001 for gender, and <0.0001 for age and gender combined.

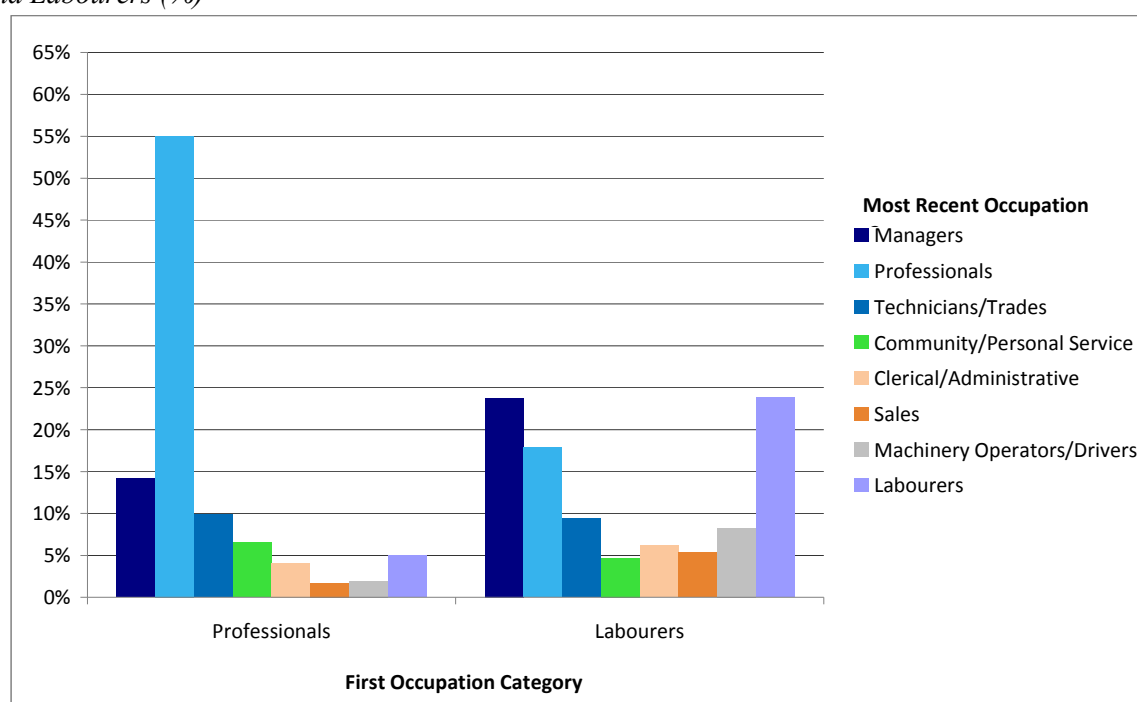
<sup>43</sup> This difference may arise from differences in the questions asked. The older sample were asked about their "main job during midlife", whereas this sample were asked about their "current or most recent job", which may or may not be the main job they have held during their midlife years.

and their current or most recent job. Nearly half began work in a professional role (21.7 percent) or as a clerical or administrative worker (24.8 percent), while 18.1 percent began as technicians or trades workers and 15.4 percent as labourers. This is a substantially lower proportion beginning work in professional roles when compared with those aged 65 to 84 (26.7 percent). However, by the time of the survey, managers had increased from 5.5 percent to 20.5 percent of those surveyed, clerical and administrative workers, technicians or trades workers, and labourers had fallen to 11.5 percent, 11.2 percent, and 10.5 percent respectively. Similar trends between first occupation group and midlife occupation group were noted among older New Zealanders (Cameron & Waldegrave, 2009).

Nevertheless, as Figure 4.1 demonstrates, there was considerable stability in the occupational categories between first job and current or most recent job for professionals. For example, of those whose first occupation was professional, over 55 percent were also a professional at the time of the survey. However for labourers it was different. Of those whose first occupation was as a labourer, only 23 percent were also labourers at the time of the survey. The extent of transitions between occupational categories are larger than those observed for those aged 65 to 84 (Cameron & Waldegrave, 2009), probably reflecting periods of lower economic stability between the 1970s and today, especially during the extensive reforms of the 1980s and early 1990s.

Figure 4.1

*Transitions from First Occupation to Current or most Recent Occupation for Professionals and Labourers (%)*



## 5.2 Midlife New Zealanders' Lifetime Experience outside the Workforce

Over 36 percent of midlife respondents had experienced one or more periods of longer than one year outside the workforce (see Table 4.2), compared with just 29 percent of those aged 65 to 84 (see Table 4.3). In the midlife sample, there were significant differences by gender but not by age in the number of such periods outside the workforce.<sup>44</sup> Women were more likely to have experienced two or more extended periods outside the workforce. However, comparing the midlife sample with the older sample, it is clear that midlife New Zealanders have experienced many more periods outside the workforce than older cohorts. For instance, of those aged 45-49, just 63.0 percent have never spent a

<sup>44</sup> F-test statistics have p-values of 0.0055 for age cohorts, <0.0001 for gender, and <0.0001 for age and gender combined. This compares with F-test statistics with p-values of 0.0055 for age cohorts, <0.0001 for gender, and <0.0001 for age and gender combined among the older sample (Cameron & Waldegrave, 2009).

period of longer than one year outside the workforce, compared with 64.4 percent of those aged 55-59, 67.1 percent of those aged 65-69, and 74.2 percent of those aged 75-79.

Neither the gender nor the age cohort differences are particularly surprising. The oldest of the midlife cohorts were more likely to have experienced the economic restructuring of the 1980s and 1990s and the accompanying period of high unemployment and discouragement of workers, while the youngest of the midlife cohorts would have only experienced the end of the restructuring; and many of the women would have experienced significant periods outside the workforce due to family responsibilities. In both the midlife and older age samples, there were no significant differences in the number of times spent outside the workforce by marital status or by ever-married status. However, in the midlife sample the number of children was significantly positively related to more periods outside the workforce for both women and men, in contrast with the older sample where this relationship was only significant for women.<sup>45</sup>

Table 4.2

*Periods of Longer than One Year Spent outside the Workforce among the Midlife Sample (%)*

|                      | Male<br>40-44 | Male<br>45-49 | Male<br>50-54 | Male<br>55-59 | Male<br>60-64 | Female<br>40-44 | Female<br>45-49 | Female<br>50-54 | Female<br>55-59 | Female<br>60-64 | Total |
|----------------------|---------------|---------------|---------------|---------------|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------|
| Never                | 9.7           | 9.5           | 8.1           | 7.6           | 6.1           | 6.1             | 5.1             | 4.1             | 4.2             | 3.1             | 63.6  |
| One time             | 1.4           | 1.3           | 1.3           | 1.0           | 0.8           | 4.0             | 4.6             | 3.2             | 2.7             | 3.0             | 23.3  |
| Two or<br>more times | 0.4           | 0.6           | 0.6           | 0.6           | 0.4           | 2.0             | 2.1             | 2.8             | 2.3             | 1.4             | 13.1  |
| Total                | 11.6%         | 11.4%         | 10.0%         | 9.1%          | 7.3%          | 12.2%           | 11.8%           | 10.1%           | 9.2%            | 7.4%            | 100%  |

Table 4.3

*Periods of Longer than One Year Spent outside the Workforce among the Older Sample (%)*

|                      | Male<br>65-69 | Male<br>70-74 | Male<br>75-79 | Male<br>80-84 | Female<br>65-69 | Female<br>70-74 | Female<br>75-79 | Female<br>80-84 | Total |
|----------------------|---------------|---------------|---------------|---------------|-----------------|-----------------|-----------------|-----------------|-------|
| Never                | 15.1          | 11.7          | 9.9           | 6.4           | 8.4             | 7.0             | 6.8             | 5.8             | 71.0% |
| One time             | 1.9           | 1.0           | 0.6           | 0.4           | 6.6             | 5.6             | 4.4             | 2.5             | 22.9% |
| Two or<br>more times | 0.5           | 0.4           | 0.1           | 0.1           | 2.6             | 1.1             | 0.8             | 0.5             | 6.1%  |
| Total                | 17.4%         | 13.1%         | 10.6%         | 6.9%          | 17.6%           | 13.7%           | 11.9%           | 8.8%            | 100%  |

Source: Cameron and Waldegrave (2009).

The reasons cited by respondents for periods longer than one year spent outside the workforce were many and varied (see Table 4.4), with a few significant differences by age or gender. The most cited reasons were family responsibilities (25.9 percent), poor health (6.4 percent), and injury or disablement (3.4 percent). The rates of all three were slightly higher than among the older sample (25.6 percent, 3.7 percent, and 2.2 percent respectively) (Cameron & Waldegrave, 2009). Women were significantly more likely to give family responsibilities as a reason,<sup>46</sup> while men were significantly more likely to have experienced a redundancy that put them out of the workforce for more than one year.<sup>47</sup> As with the older sample, men were not more likely to cite poor health.<sup>48</sup>

The members of the youngest cohort were significantly more likely to have had a period of time outside the workforce for an overseas trip,<sup>49</sup> but that was the only significant difference by age cohort.

<sup>45</sup> F-test statistics have p-values of <0.0001 for men, and <0.0001 for women.

<sup>46</sup> p<0.0001.

<sup>47</sup> p=0.0008.

<sup>48</sup> p=0.2067.

<sup>49</sup> p=0.0003.

Redundancy was cited by 1.2 percent of respondents, compared with 0.5 percent among the older sample, mildly reinforcing the stronger effects of the economic restructuring of the 1980s and 1990s on these age cohorts. However, among these midlife New Zealanders, the oldest age cohorts were more likely to have experienced a year or more outside the workforce due to redundancy. Including both the samples, the likelihood of having experienced redundancy increases with age up to the 55-59 and 60-64 aged cohorts, then decreases among older cohorts. The youngest cohort would have been in their 20s during the recession of the early 1990s, so are likely to have mainly experienced the subsequent periods of relatively low unemployment during the majority of their working life. The oldest cohorts from the older sample (say, those over age 75) would have retired during the reforms, including some who may have taken early retirement rather than redundancy.

Table 4.4

*Reasons for Periods of Longer than One Year Spent outside the Workforce (%)*<sup>50</sup>

|                            | Male<br>40-44 | Male<br>45-49 | Male<br>50-54 | Male<br>55-59 | Male<br>60-64 | Female<br>40-44 | Female<br>45-49 | Female<br>50-54 | Female<br>55-59 | Female<br>60-64 | All  |
|----------------------------|---------------|---------------|---------------|---------------|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|------|
| Family responsibilities    | 3.3           | 1.2           | 3.7           | 2.3           | 3.3           | 44.1            | 49.6            | 50.2            | 45.8            | 51.6            | 25.9 |
| Poor health                | 3.4           | 4.8           | 7.1           | 6.3           | 7.4           | 6.2             | 7.0             | 7.8             | 8.1             | 6.5             | 6.4  |
| Injury or disablement      | 3.6           | 6.9           | 3.4           | 4.4           | 3.2           | 0.7             | 2.5             | 2.1             | 4.7             | 2.5             | 3.4  |
| Redundancy                 | 1.7           | 0.0           | 2.1           | 2.8           | 3.9           | 0.0             | 0.0             | 0.3             | 1.2             | 1.1             | 1.2  |
| Overseas trip              | 8.0           | 1.1           | 2.1           | 1.7           | 1.3           | 3.0             | 1.6             | 0.8             | 2.0             | 2.1             | 2.5  |
| Retirement                 | 0.6           | 1.8           | 1.9           | 3.2           | 0.5           | 1.5             | 0.6             | 2.8             | 1.1             | 1.3             | 1.5  |
| Studying                   | 1.0           | 1.0           | 1.6           | 0.7           | 0.4           | 1.4             | 0.6             | 0.8             | 1.5             | 0.4             | 1.0  |
| No suitable jobs available | 0.6           | 0.6           | 1.1           | 0.0           | 0.5           | 0.0             | 1.0             | 0.3             | 0.7             | 0.0             | 0.5  |
| Other                      | 0.0           | 1.2           | 1.1           | 0.0           | 0.0           | 0.7             | 0.5             | 0.6             | 0.9             | 0.0             | 0.5  |

As for the older sample, family responsibilities were significantly related to the number of children, and those who had never been married were significantly less likely to cite family responsibilities as a reason for being outside the workforce (data not shown). Significant absences from the workforce due to poor health were also associated with having more children, while workers with up to secondary school or vocational qualifications were more likely to experience a significant period outside the workforce as a result of injury or disablement than those with primary schooling only or a university education. Taking time outside the workforce for studying was significantly associated with higher levels of education and with having fewer children. These results suggest that midlife New Zealanders, who generally had smaller families than those currently aged 65 to 84, had more opportunity for higher education.

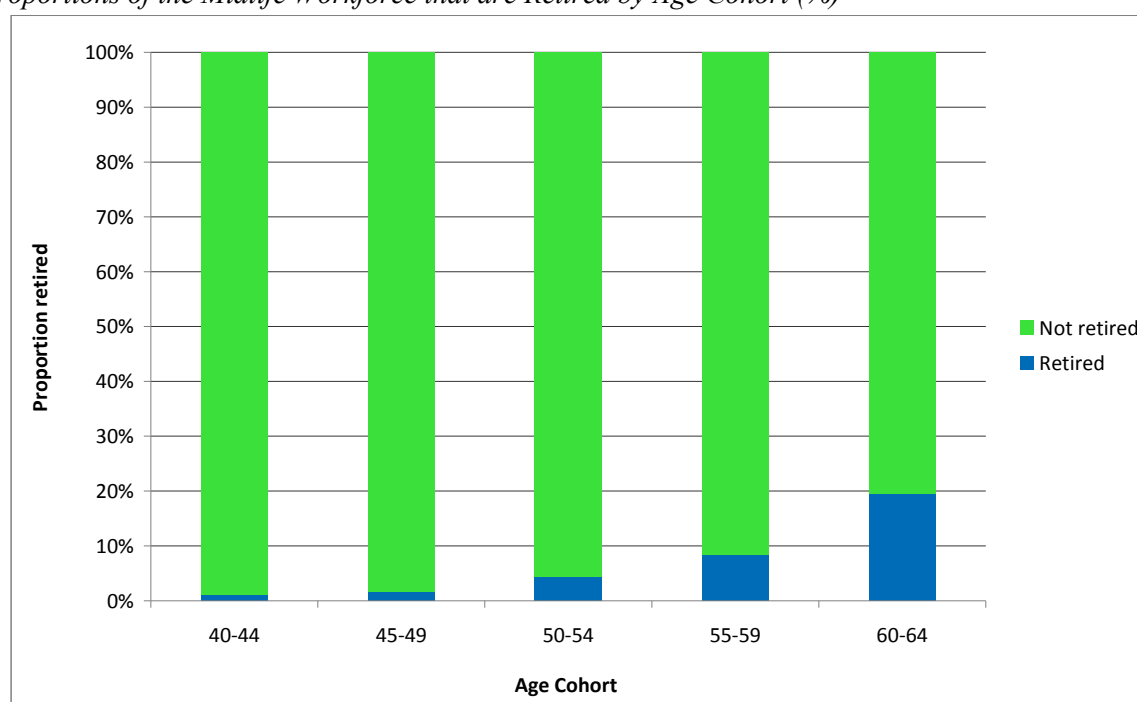
### 5.3 'Early Retirement' among Midlife New Zealanders

As would be expected with a midlife cohort, retirement was less common than among the older group. New Zealand has no compulsory retirement age; however, the age of eligibility for National Superannuation is 65 years, and this has become effectively a default retirement age for many workers. For instance, the age of retirement of New Zealanders aged 65 to 84 closely matched the age of eligibility for National Superannuation at the time of their retirement, even though compulsory retirement was abolished in 1999 (Cameron & Waldegrave, 2009). Among the 40-64 year-old New

<sup>50</sup> Note that proportions in this table are not relative frequencies and as such do not sum to 100 percent, as respondents could give more than one reason for time spent outside the workforce.

Zealanders surveyed, 5.9 percent responded that they were already retired. Women were significantly more likely to be retired (2.1 percent vs. 3.9 percent).<sup>51</sup> Rates of early retirement increased markedly with age, as shown in Figure 4.2, from 1.1 percent of those aged 40 to 44, to 4.3 percent of those aged 50 to 54, to 19.4 percent of those aged 60 to 64. Lower education was significantly associated with early retirement,<sup>52</sup> which stands in contrast with the older sample where the age at retirement was not associated with education (Cameron & Waldegrave, 2009). However, within age cohorts, there were no significant differences in the age of retirement by gender or education (data not shown).<sup>53</sup>

Figure 4.2  
*Proportions of the Midlife Workforce that are Retired by Age Cohort (%)*



The main reasons given for early retirement were many and varied, with notable differences from those reported by those aged 65 to 84 (refer to Table 4.5).<sup>54</sup> The most cited reasons for retirement among midlife New Zealanders were poor health (35.6 percent), “wanted to do other things” (23.8 percent), and “don’t need to work” (10.4 percent), family responsibilities (6.2 percent), and disablement or injury (5.9 percent). This is quite different from the responses by older New Zealanders, where most retired because they “wanted to do other things” (27.5 percent), or they “reached official retirement age” (26.3 percent). There were no significant differences in the reasons for early retirement by gender or education, but younger cohorts were more likely to report poor health as a reason for early retirement (data not shown). This suggests that, for a number of retired younger midlife New Zealanders, early retirement is not a choice, but is often driven by poor health, disablement or injury.

<sup>51</sup>  $p=0.0010$ .

<sup>52</sup>  $p=0.0028$ .

<sup>53</sup> F-test statistics have p-values of 0.4096 for gender, and 0.1771 for education.

<sup>54</sup> Respondents could only give one response to this question, so it should be interpreted as the ‘main reason’ for retirement, and is only a lower-bound estimate of the proportion of people having that as one of the many reasons they retired.



Table 4.5  
*Reasons for Early Retirement (%)*

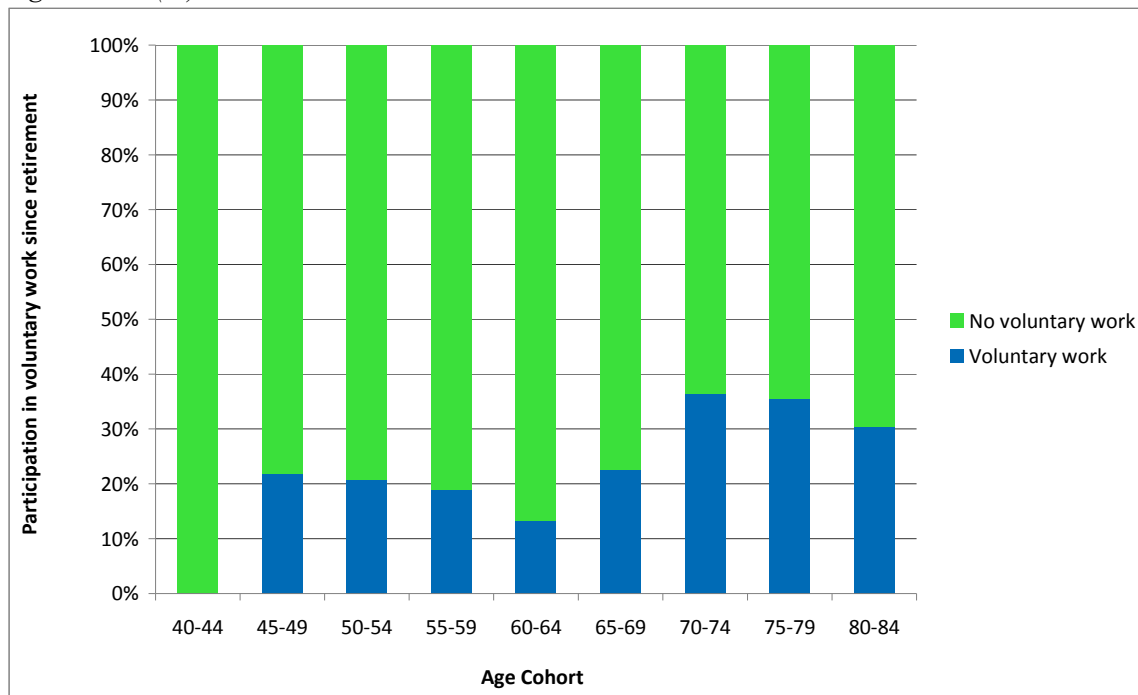
| Reason   | Midlife<br>(40-64) | Older<br>(65-69) <sup>55</sup> |
|--|--------------------|--------------------------------|
| Poor health                                      | 35.6               | 13.1                           |
| Wanted to do other things                        | 23.8               | 27.5                           |
| Don't need to work                               | 10.4               | 4.6                            |
| Family responsibilities                          | 6.2                | 8.0                            |
| Disablement or injury                            | 5.9                | 2.9                            |
| Employer closed/contract ended/no jobs available | 4.6                | 4.6                            |
| Employer forced retirement/redundancy            | 3.7                | 6.1                            |
| Moved/migrated                                   | 2.2                | 1.3                            |
| Reached official retirement age                  | 2.2                | 26.3                           |
| Spouse retired/convinced them to retire          | 0.8                | 2.3                            |
| Lacked skills to continue                        | 0.0                | 0.7                            |
| Workload too much/stress                         | 0.0                | 0.6                            |
| Started studying                                 | 0.0                | 0.2                            |
| Other  | 4.6                | 1.9                            |

Of those who were retired, 27.7 percent indicated that they had undertaken some form of work since their retirement. Age, gender, and education were not significantly associated with the decision to work after retirement; unlike the older sample where work after retirement was significantly more likely to be undertaken by the higher educated (Cameron & Waldegrave, 2009). Work after retirement among midlife New Zealanders included a narrower range of activities than did work after retirement for older New Zealanders (data not shown).

Some form of voluntary work was engaged in by 15.3 percent of the retired midlife New Zealanders, with the older cohorts engaging in more voluntary work than the younger cohorts, as shown in Figure 4.3. Cameron and Waldegrave (2009) found that the 'younger old' were more likely to engage in voluntary work after retirement than the 'older old', but it was unclear whether this was a cohort effect (i.e. suggesting that voluntary work is increasing among those entering retirement age) or an age effect (i.e. suggesting that the 'younger old' engage in more voluntary work). Figure 4.3 provides little definitive answer to this question, as it shows that voluntary work after retirement is most prevalent among those aged 70-74, and is much less among midlife retirees. This may be related to the reasons for early retirement noted above – those who have retired due to poor health, disablement or injury may be less able to act in a voluntary capacity just as they are unable to work in formal employment. Alternatively, or possibly additionally, it may be that those who choose to retire from the workforce earlier in their lives are also less likely to volunteer their time after retirement. Unfortunately the data provides no further guidance on the factors underlying the low levels of post-retirement volunteerism among midlife retirees.

<sup>55</sup> Source: Cameron and Waldegrave (2009).

Figure 4.3  
*Proportions of the Retired Population who have Engaged in Voluntary Work since Retirement by Age Cohort (%)*

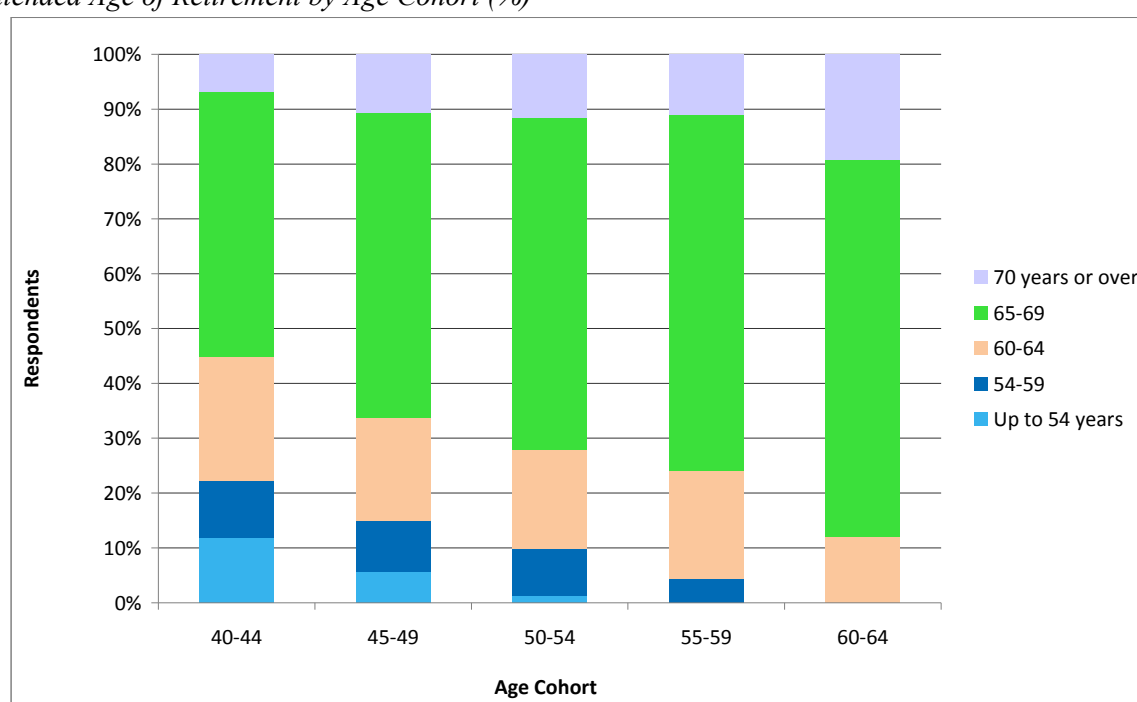


#### 5.4 Retirement Intentions and Financial Preparation for Retirement among Midlife New Zealanders

Midlife New Zealanders were asked several questions about their retirement intentions, including (i) at what age do you expect to retire; (ii) are you looking forward to your retirement or not; and (iii) approximately how many hours per week would you like to work after your retire?

The mean age at which the midlife New Zealanders intended to retire was 63.6 years. There was no statistically significant difference in the intentions of men (mean 64.0 years) and women (63.1 years), but the intended age of retirement increased significantly with age, from 61.6 years among those aged 40-44 years, to 63.3 years among those aged 45-49, 64.1 years among those aged 50-54, 64.7 years among those aged 55-59, and 66.4 years among those aged 60-64. This is further demonstrated by the distribution of intended age of retirement in Figure 4.4; the proportion of those intending to retire between 65 and 69 years, or at 70 years or over, increases with age. Intended age of retirement also varied significantly by education level, with those who had only primary school education expecting to retire latest (at a mean 65.1 years), and those with secondary school education expecting to retire the earliest (at 62.6 years) (data not shown).

Figure 4.4  
*Intended Age of Retirement by Age Cohort (%)*



When asked whether they were looking forward to their retirement or not, 39.3 percent of midlife New Zealanders responded that they were looking forward to their retirement. There were no differences in this variable between genders or by education, but older cohorts were significantly more likely to be looking forward to their retirement.<sup>56</sup> This is probably a consequence of the imminence of their intended retirement, a point reinforced by the fact that those who intend to retire at younger ages were significantly more likely to be looking forward to their retirement (data not shown).<sup>57</sup> In other words, midlife New Zealanders who are not looking forward to their retirement are more likely to be intending to delay their retirement and retire later.

On average, the midlife New Zealanders intended to work 14.8 hours per week after retirement, with just 20.9 percent of those surveyed stating that they intended to work zero hours per week after retirement. There were no significant differences in this intention by age cohort or education, but men (mean 17.6 hours, and 16.3 percent intending not to work any hours) were intending to work significantly more hours after retirement than women (mean 12.1 hours, and 25.5 percent intending not to work any hours).<sup>58</sup> If these intentions are carried out that would represent a change in behaviour from those currently aged 65 to 84, where men were no more likely to work after retirement than women, but those with more education were more likely to work after retirement (Cameron & Waldegrave, 2009).

Many midlife New Zealanders were preparing financially for their retirement – of those surveyed, two-thirds had some form of private retirement savings, including private superannuation (43.5 percent), term deposits or other bank savings (17.9 percent), investment properties (16.3 percent), shares or other investments (9.2 percent), repayment of mortgages on their own home (7.8 percent), KiwiSaver (3.6 percent), insurances (1.2 percent), and other retirement savings (4.9 percent). The low proportion of midlife New Zealanders reporting KiwiSaver is not surprising, given that the scheme was only launched in April 2007, the year before this survey. The Government has reported a

<sup>56</sup> F-test statistics have p-values of 0.0036 for age cohorts, 0.4179 for gender, and 0.2551 for education.

<sup>57</sup>  $p < 0.0001$ .

<sup>58</sup> F-test statistics have p-values of 0.9008 for age cohorts,  $< 0.0001$  for gender, and 0.0369 for education.

membership of 1,132,081<sup>59</sup> with 51 percent being over the age of 35 years (Inland Revenue Department, 2009). It can therefore be safely assumed that there are many more members today.

There were no significant differences in the probability of having some retirement savings by age cohort, and men were slightly more likely to have retirement savings than women.<sup>60</sup> However, the higher educated were significantly more likely to have retirement savings than the lower educated; of those with primary school education only 44.6 percent reported some retirement savings, compared with 66.3 percent of those with secondary school education, 67.1 percent of those with a vocational qualification, and 77.8 percent of those with a university qualification.<sup>61</sup> This significant difference presumably reflects higher levels of disposable income available for saving among the higher educated.

Of those with at least some retirement savings, there were no significant differences in the types of retirement savings held by age cohort, gender, or education. KiwiSaver was reported as a form of retirement savings by 4.3 percent of men, 6.7 percent of women; and by 5.7 percent of those aged under 50 and 5.2 percent of those aged 50 or over.

### 5.5 *Satisfaction with Work*

Overall levels of satisfaction with work were relatively high, with 87.4 percent of respondents reporting they were satisfied with work (and 12.6 percent reporting they were dissatisfied with work). However, the level of satisfaction was much lower among midlife New Zealanders than among those aged 65 to 84, where 97.2 percent were satisfied with work. There was no difference in satisfaction with work by gender or education<sup>62</sup> but, as shown in Figure 4.5, satisfaction with work was significantly higher amongst the oldest cohort of workers,<sup>63</sup> (which corresponds well with the findings of high satisfaction in the older sample). Given the cross-sectional nature of the data though, it is difficult to discern whether this increasing satisfaction with work by age is a cohort effect or an age effect.

Reported satisfaction with work among midlife New Zealanders was significantly associated with their current or most recent type of job, with satisfaction highest among full-time unpaid family/farm business workers (94.9 percent satisfied) and the fully retired (89.6 percent), and lowest among part-time unpaid family/farm business workers (80.4 percent), homemakers (82.8 percent), and the 'other' category (70.0 percent). This is consistent with studies that have found that work satisfaction is related to current work status, conditions of employment, and the characteristics of the job (e.g. see Beham, Drobnič & Verwiebe, 2006, for a recent review).

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<sup>59</sup> This figure was reported net of 233,3307 opt outs and closures.

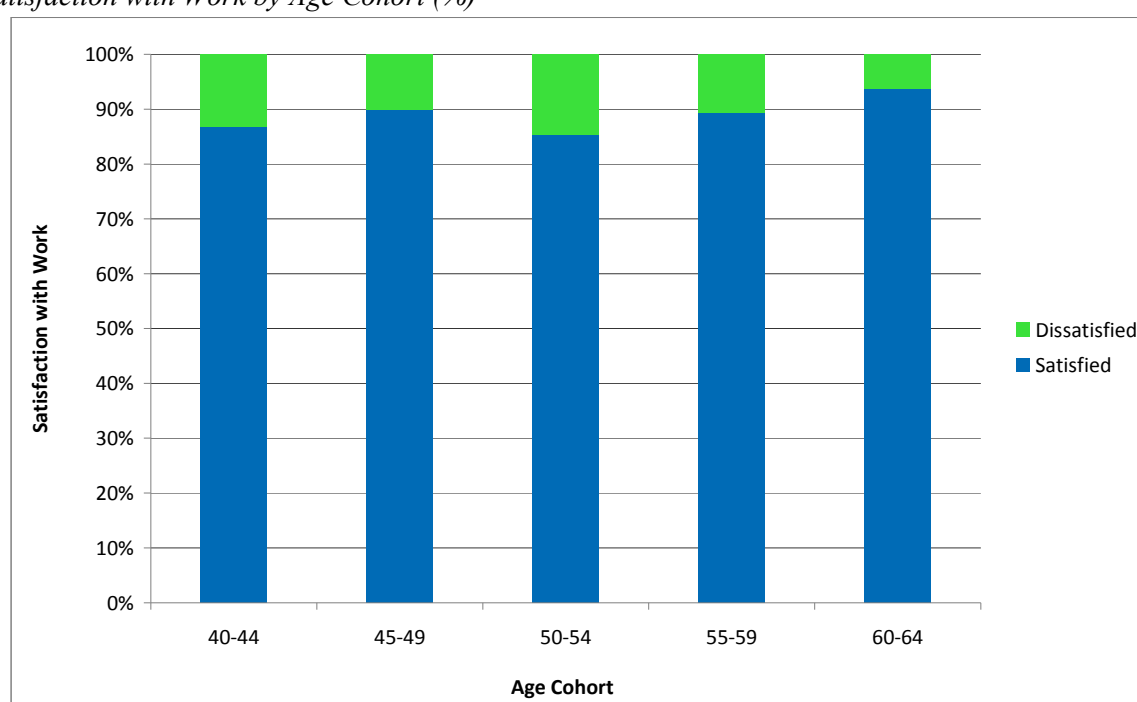
<sup>60</sup> F-test statistics have p-values of 0.5674 for age cohorts, and 0.0102 for gender.

<sup>61</sup>  $p < 0.0001$ .

<sup>62</sup> F-test statistics have p-values of 0.2488 for gender, 0.9366 for education.

<sup>63</sup>  $p = 0.0092$ .

Figure 4.5  
Satisfaction with Work by Age Cohort (%)



Somewhat surprisingly, there were no significant relationships between retirement intentions and satisfaction with work. Those unsatisfied with work were no more likely to be intending to retire early or to be looking forward to their retirement, than those who were satisfied with work.<sup>64</sup>

#### 5.6 Work and Overall Wellbeing

Satisfaction with work and overall wellbeing have a very close association.<sup>65</sup> As demonstrated by Figure 4.6, those with higher satisfaction with work have demonstrably higher overall wellbeing. These results are similar to those reported for New Zealanders aged 65 to 84 (Cameron & Waldegrave, 2009), although the significance of the relationship among midlife New Zealanders is much stronger.

As with satisfaction with work, overall wellbeing was closely associated with current or most recent type of job (data not shown), but showed no association with intentions to retire.<sup>66</sup> However, unlike satisfaction with work, overall wellbeing showed a moderately negative association with the number of periods of at least one year spent outside the workforce (refer Figure 4.7). This association was highly significant for men, but not for women.<sup>67</sup> This finding is very similar to that found for New Zealanders aged 65 to 84 (Cameron & Waldegrave, 2009), and confirms that significant periods spent outside the workforce have a widespread negative influence on men's overall wellbeing.

<sup>64</sup> F-test statistics have p-values of 0.9667 for intended age of retirement, 0.3798 for number of expected years until retirement, and 0.7461 for "looking forward to retirement".

<sup>65</sup>  $p < 0.0001$ .

<sup>66</sup>  $p < 0.0001$  for current or most recent type of job,  $p = 0.0745$  for intended retirement age, and  $p = 0.2624$  for number of years until intended retirement.

<sup>67</sup>  $p = 0.0804$  overall,  $p = 0.0024$  for men, and  $p = 0.1273$  for women.

Figure 4.6  
Satisfaction with Work by Overall Wellbeing (%)

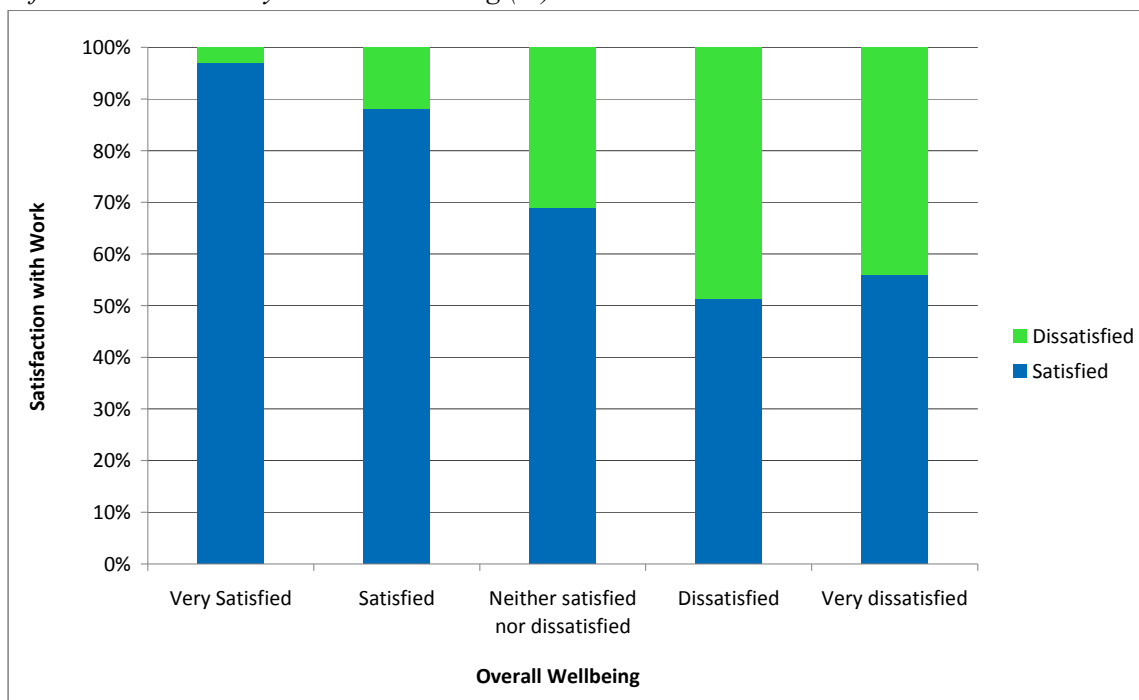
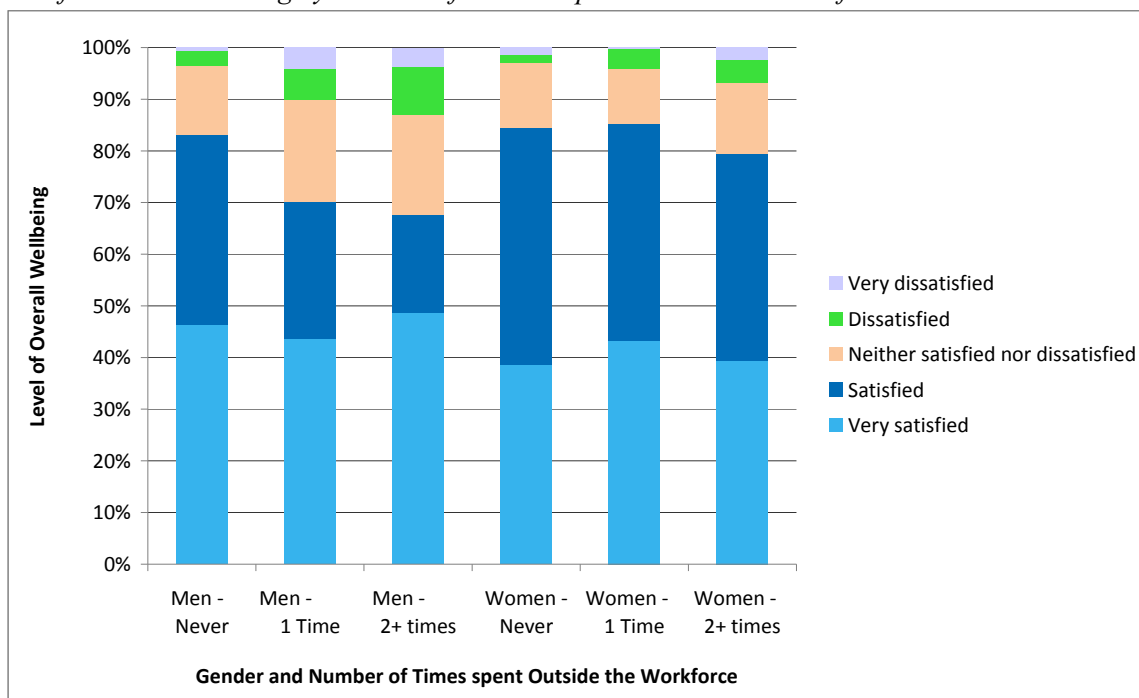


Figure 4.7  
Level of Overall Wellbeing by Number of Periods spent Outside the Workforce



## 6. Conclusions

This analysis of work and wellbeing among New Zealanders aged 40 to 64 has explored a number of the lifetime work experiences of midlife people, both in and out of the workforce, and found that many of their experiences were similar to older cohorts of New Zealanders aged 65 to 84 (see Cameron & Waldegrave, 2009). Of the midlife New Zealanders surveyed, the first main job for nearly

all was in full-time paid work, but with a greater proportion starting their working lives in part-time work when compared with older cohorts. At the time of the survey, women were significantly more likely to report their current or most recent job to be as a homemaker or part-time paid work, and less likely to be full-time paid work; results very similar to those from older cohorts. The range of occupations from respondents' first job through to their current or most recent occupation showed variations in stability, with those starting out as professionals being the most stable and those starting out in sales or as labourers being the least stable.

Women were more likely to have experienced two or more extended periods outside the workforce. However, comparing the midlife sample with the older sample, it is clear that midlife New Zealanders have experienced many more periods outside the workforce than older cohorts, probably reflecting older workers' experiences during the economic restructuring of the 1980s and 1990s and the accompanying period of high unemployment and discouragement of workers. The most cited reasons for periods of longer than one year spent outside the workforce were family responsibilities (mostly by women), poor health, and injury or disablement, exactly as they were for the older age cohorts.

Among the 40-64 year-old New Zealanders surveyed, 5.9 percent were already retired. Women were significantly more likely to be retired, as were the lower educated. This stands in contrast with the older sample where the age at retirement was not associated with education. The most cited reason for retirement was poor health, with "wanted to do other things/don't need to work" close behind (35.6 percent and 34.2 percent respectively). Disablement or injury, redundancy, and no available jobs available affected almost a fifth of those who had retired. Furthermore, younger cohorts were more likely to report poor health as a reason for early retirement. This suggests that, for retired younger midlife New Zealanders, early retirement is not always a choice, but may be driven by poor health, disablement, injury, redundancy or lack of work.

The mean age at which midlife New Zealanders intended to retire was 63.6 years, with no difference by gender. Younger cohorts intended to retire at younger ages, while those with the least education intended to retire the latest. When asked whether they were looking forward to their retirement or not, 39.3 percent of midlife New Zealanders responded that they were looking forward to their retirement. Midlife New Zealanders who were not looking forward to their retirement were more likely to intend delaying it. Men intended to work more hours after retirement than women, in contrast with the older sample where men were no more likely to work after retirement than women.

Two-thirds of the midlife New Zealanders were preparing financially for their retirement, mostly with private superannuation schemes. There were no differences in financial preparation for retirement by age or gender, but the higher educated were significantly more likely to have retirement savings than the lower educated. This significant difference presumably reflects higher levels of disposable income available for saving among the higher educated.

Self-reported satisfaction with work was very high, and related to the respondents' current or most recent job type. However, the level of satisfaction was much lower among midlife New Zealanders than among those aged 65 to 84 and, among the midlife sample, satisfaction with work was significantly higher amongst the oldest cohort of workers. However, given the cross-sectional nature of the data, it is difficult to disentangle whether this increasing satisfaction with work by age is a cohort effect or an age effect.

As with the older sample, satisfaction with work among midlife New Zealanders was found to be significantly associated with overall wellbeing, and the association was stronger for midlife New Zealanders than for the older sample. Also in common with the older sample, the number of periods of more than one year spent outside the workforce was negatively associated with overall wellbeing, but only for men. That is, men with fewer long periods outside the workforce had significantly higher overall wellbeing. Spending time outside the workforce was not related to satisfaction with work, but may have an effect through lower economic standard of living in later life, or may be related to poor health and therefore have an effect through the health dimension of overall wellbeing. Given that this

effect was similar in both the midlife sample and the older sample, the dynamics of this effect need further investigation.

These last two points reinforce the earlier suggestion that work is a key direct determinant of overall wellbeing, over and above its contribution through income generation. Work is important to wellbeing not only in midlife, but also in later years after formal labour force participation has ended. Policymakers who are concerned with raising overall wellbeing of older New Zealanders should therefore be seeking ways to increase all New Zealanders' satisfaction with work, particularly given the strong association between satisfaction with work and overall wellbeing. They should also be concerned about New Zealanders, particularly men, who experience long absences from the workforce, as they experience lower overall wellbeing in midlife that continues into later life.

Finally, this research was conducted using cross-sectional data, albeit from a large sample. Given the nature of the data, it is not possible to satisfactorily disentangle cohort effects from age effects, and this suggests that future research seeking to expand on or confirm the findings in this chapter should be based on longitudinal data.

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# **Chapter 5: Income, Assets, Living Standards and Housing among Midlife New Zealanders**

Charles Waldegrave and Michael P. Cameron

## **1. Introduction**

The midlife years tend, in developed countries, to be the most prosperous in the lifecycle and New Zealand is no exception. Most households have at least one, and often two, persons who have established their careers and receive their highest incomes well into their early fifties. Income begins to show a decline in later midlife and reduces in retirement. Asset wealth, however, tends to continue to increase throughout the midlife period and then declines. Mortgages owing on houses gradually reduce during midlife and contributions to other types of assets tend to accumulate.

Data from the 2006 Census (Statistics New Zealand, 2008a), grouped in five year income bands, show the 40-49 year-old age group having the highest median personal income of \$35,200, with next highest being the 50-54 year-olds, on \$34,600. However, there is a marked drop in median income from the 55-59 year-old group on \$31,500 to the 60-64 year-old group on \$23,700, an income which is just below the national median (\$24,400). More recent data from the Household Economic Survey for the year ended June 2008 (Statistics New Zealand, 2008b) show that the median income for the 60-64 year-old age group had increased during the 2006/07 year to be above the national median, but still below that of the younger cohorts.

The 2004 Survey of Family Income and Employment shows family net worth accumulation (the difference between total assets and total liabilities) accelerates through the working ages and peaks between the ages of 55 and 64. Median net worth reduces gradually after retirement (Statistics New Zealand, 2008c). A similar pattern was shown in an earlier analysis of the 2001 Household Savings Survey (Statistics New Zealand & Retirement Commission, 2002) where 55 to 64 year-olds had the highest percentage of non-partnered individuals and couples with net worth greater than \$200,000. This was summarised: "As net worth is accumulated over a lifetime, the distribution of net worth in New Zealand is closely related to age" (2002:2).

The aim of this chapter is to present a picture of the economic standard of living for midlife New Zealanders, and the critical factors associated with that standard of living and overall wellbeing. The chapter begins with coverage of comparable New Zealand and international studies, and then presents the results of the survey of 40-64 year-olds with respect to income, assets, poverty and housing and their association with gender, age, marital status, education, health and wellbeing. Objective and subjective measures are applied and the results of both are compared statistically.

## **2. Income, Socio-Economic Status and Wellbeing in Midlife**

This section provides a brief overview of New Zealand and international research studies which have investigated the relationships among income, socio-economic status and wellbeing for people in midlife. They vary in the measures that are applied and the terms used. There is no agreed age range for the midlife group. The range chosen for this study was 40 to 64 years, but studies vary considerably at the younger and older limits. Wellbeing in the literature is often a synonymous term for quality of life and, in some cases, includes satisfaction and happiness. Some studies focus primarily on income, while others explore the relationships of asset accumulation, socio-economic status and health with wellbeing. As the studies show, the positive relationships between income, socio-economic status and wellbeing are consistent.

In an analysis of the New Zealand Household Economic Survey database, Perry (2008) showed that those aged 45–64 years make up the largest portion (36 percent) of the top quintile (20 percent) of equivalised disposable household income.<sup>68</sup> Further, they have the second largest portion (28 percent) in the second highest quintile. These relative positions were maintained both before and after household costs were taken into account. However, although the midlife cohort had a greater proportion living in households on higher incomes, there was still a substantial proportion living in households on lower incomes (17 percent in the lowest quintile and another 13 percent in the quintile above that).

These financial circumstances appear to translate into good living standards for midlife New Zealanders. The New Zealand Living Standards Report found that “the proportion of 45-64 year-olds with living standard scores in the ‘very good’ category has increased from 11% (in 2000) to 14%, now the highest proportion of any age group in this category” (Jensen et al., 2006:64).

Furthermore, 72 percent of the 45-64 age group had a comfortable or better living standard, second only to the 65 and over age group, with 81 percent. The 45-64 age group’s mean living standard score had changed little since 2000.

The Living Standards Report applied a life cycle model to living situations to show that those aged 55-64 who were a couple without children had the second highest living standard, after those over 75 who were a couple without children. The report also found that, in general, all those with equivalent disposable incomes over \$30,000 had comparatively high average living standards, although income levels only partially explained the variations in living standards.

A recent Australian government report on families (Department of the Prime Minister and Cabinet, 2008) identified trends in household income and net worth over the life course. The report noted that, “Income rises more rapidly again for people in the 40s and 50s before declining in retirement. Wealth follows a different pattern, gradually accumulating as people age and then declining as it is used in retirement” (2008:49). The 45-64 year-old age groups fell right into the crossover area where average gross household income peaks at ages 45-54 and then declines, while net worth peaks at ages 55-64 before declining. Similar trends in income across the life cycle have been observed for the United Kingdom, United States, and several other OECD countries (Casey & Yamada, 2002).

A number of international studies have explored the relationship between income and wellbeing, and between social class and wellbeing. A study of more than 10,000 Swedish adults between the ages of 20 and 64 years found that those with a good financial position had a slightly higher wellbeing score than those with a less positive financial situation (Hansson, Hillerås & Forsell., 2005). They also found those aged 50-64 years had a higher level of wellbeing than those at younger ages. A similar ‘clear gradient’ in increases in income (both personally and nationally) and satisfaction with life has been demonstrated in an Australian study (Cummins et al., 2001). As income rose, satisfaction increased. The influence was much greater for those in households with incomes of less than \$30,000 and especially those under \$15,000, but still marked for those over \$30,000. Among those on incomes under \$15,000, men were significantly less satisfied than women, and among those on incomes under \$30,000 the 36 to 55 year-old age group was less satisfied than both the younger and older groups. The authors suggested that this latter finding for the midlife cohort may be due to the financial pressures they often experience as a result of mortgage repayments and caring for dependent children.

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<sup>68</sup> Equivalised income refers to income after applying equivalence scales. Equivalence scales enable a calculation of the income required for households of different sizes and ages to achieve an “equivalent” standard of living. They are often used in poverty measurement where it is recognised, for example, that the same standard of living for a one parent and one child family will require a different amount of income than a two parent and three children family. Disposable income is income after the payment of taxation. Household income refers to the sum of income received by household members.

The positive relationship between level of income and wellbeing has been found to be more complex in some studies. Easterlin (2006) used longitudinal data from the United States General Social Survey for the years 1973-1994 to follow happiness levels for different age cohorts. Average happiness was greatest in midlife (peaking at age 50). However, satisfaction with financial domains differed from the other domains in that it did not follow the life course pattern of people's actual financial situation. Instead it was noted that: "income rises throughout most of the working years and then levels off and declines, but satisfaction with one's financial situation moves almost inversely, starting to rise noticeably in midlife, and increasing most in late life when income, if anything, is typically declining" (Easterlin, 2006: 475).

The relationship of wellbeing with socio-economic status has also been investigated in two of the larger longitudinal studies of ageing. Using the 2004 Survey of Health, Ageing and Retirement in Europe (SHARE) database, which contains data on people 50 years and over, Knesebeck et al. (2007) found that quality of life was higher for those aged 50-64 than those aged 65 or more, with the greatest magnitude in difference for those in Spain and Greece, and almost no difference for those in Switzerland. Those respondents aged 50-64 in the top three deciles of net worth were significantly more likely to have a higher quality of life in 9 out of the 10 countries. This association was particularly marked in Germany, but weak in Austria, Denmark and Switzerland. Regression analysis on respondents aged 50-64 showed that income, net worth, education and car ownership were all associated with a higher quality of life score. Home ownership was not as strongly associated. Analysis of data from the English Longitudinal Study of Ageing (ELSA) also showed that mean quality of life scores for those aged 50 years to retirement (and for those who were retired) were consistently higher for the higher classified professions (e.g. managerial and professional) and lower for the lower classifications (e.g. routine occupations) (Blane, Netuveli & Bartley, 2007).<sup>69</sup> The self-employed were an exception, however. During employment their quality of life scores were comparable with the top three social classes, but in retirement were more comparable with the bottom three social classes.

Similar associations have been found between health and socio-economic status for midlife populations. In a large scale study of men in the USA and UK, drawing upon the US Health and Retirement Study, the US National Health and Nutrition Examination Survey and the English Longitudinal databases, significant associations were found (Banks et al., 2006). It was concluded that, "there exists a steep negative health gradient for men in both countries where men at the bottom of the economic hierarchy are in much worse health than those at the top" (2006:27). Comparable associations were found by Marmot et al. (1998) reporting on data from the large cross-sectional National Survey of Mid-life Development in the United States (MIDUS) of adults 25 to 74. In a more recent analysis of the MIDUS data, Marmot and Fuhrer (2004) found that the highest risk of poor health came with the lowest household income quartiles, and each quartile had worse health than the one above it.

Overall, the research on the relationship between income, socio-economic status and wellbeing among midlifers is fairly consistent within New Zealand and internationally. Higher incomes are positively associated with greater wellbeing, quality of life and better health, and midlife is the time when most people's earning capacity peaks.

### **3. Poverty, Housing Tenure, and Crowding among Midlife New Zealanders**

#### **3.1 Poverty**

New Zealand's Ministry of Social Development regularly documents economic living standards for the national population. The annual Social Report (Ministry of Social Development, 2008) provides an estimate of the proportion of the population in New Zealand households who are living on low

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<sup>69</sup> They applied the seven steps of the National Statistics Socio-Economic Classification (NS-SEC), which is based on employment, as their measure of socio-economic position.

incomes. The Report counts those in midlife to be between the ages of 45 and 64 years. That age group, the 45-64 year-olds, have consistently maintained the second lowest percentage among the different age bands for persons living on low incomes,<sup>70</sup> behind the 65 and older group. Figures from 2007 show 11 percent of 45-64 year-olds, and 8 percent of those over 65, in low income households. The other age bands, those younger than 45, all had higher proportions below the threshold. In his analysis of New Zealand Household Economic Survey data to 2007, Perry (2008) argues there is a 'hardship gradient' generally maintained across age groups, where, for example, those aged 25-44 have a higher proportion in low income households than those aged 45-64.

A number of overseas studies have analysed the sub-populations most at risk of poverty. Applying data from the English Longitudinal Study (ELSA), Emmerson and Muriel (2008) examined changes in living standards among those aged 50 years and over. They found that single people were more likely to be in income poverty than couples. Women who were divorced, separated or widowed had the highest poverty risk. Those with low state or private pensions and those in midlife below the pension age had a much greater risk of being in poverty. Furthermore persons who moved out of the labour force, and those whose partners moved out of the labour force, were also at greater risk.

Longitudinal data from the US Panel Study of Income Dynamics, was used by Vartanian and McNamara (2002) to assess midlife characteristics that impact on economic wellbeing outcomes in later life for elderly women. They found that women's poverty in midlife (40-59 years) was strongly related to poor economic outcomes in old age, although it was only one predictor. For example, relative affluence in middle age did not necessarily preclude poverty in later life, as labour force involvement, education and marital status were also significantly related to old age economic outcomes. In a later study McNamara (2007) used the US National Longitudinal Survey of Mature Women to assess the impact of midlife work history on the long-term disadvantage of older women. She found that women with low incomes in midlife were unlikely to improve their income levels through their work effort unless there were additional advantages like unionisation, core sector status (as differentiated from periphery sector status) and pension plan availability. The results also showed that, "despite substantial work histories, many women who have low income in midlife actually fall further into poverty in old age" (2007:445).

Cross-sectional data drawn from three waves of the Swiss Household Panel (Vetter et al., 2006) was examined for associations between working poverty and two measures of psychological wellbeing among persons 20 to 59 years, taking into account both a low income threshold and a restricted standard of living. The findings showed that a restricted standard of living (i.e. poverty), was significantly negatively correlated with psychological wellbeing, and was also associated with increased risk of unmet mental health need. Women were affected more intensely than men.

Overall, there is a significant body of research to show that poverty is associated with age, family type, labour market attachment and gender. There is a higher likelihood of midlife householders being poor in the earlier midlife years if they are women, single and have low labour force attachment.

### 3.2 *Housing Affordability, Tenure and Crowding*

In order to assess housing affordability, the Ministry of Social Development (2008) applies a formula that measures the cost of housing in relation to after tax income. It is referred to as OTI (housing cost Outgoings To disposable Income). The Ministry considers that an OTI ratio greater than 30 percent crosses the affordability threshold and is an indicator of economic hardship for those in the bottom two income quintiles. The midlife group of 45-64 year-olds have had the largest percentage increase in the low affordability category through the 1990s and the new millennium, with 5 percent in 1988 and a steady increase to 19 percent in 2007 (Ministry of Social Development, 2008). Despite this, the three younger cohorts recorded higher overall numbers in the low affordability categories.

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<sup>70</sup> 60 percent of median, equivalent, disposable, household income, net of housing costs

Rates of home ownership have also been reducing. In an analysis of the housing data from the 2006 Census (DTZ New Zealand, 2007), it was found that home ownership rates for those in midlife have been steadily declining since the 1980s. The rate of decline has been higher than for the older age cohorts, but lower than the younger age cohorts. A further New Zealand study of home ownership examined census data from 1991 to 2006 (Morrison, 2007). In the context of the declining overall rates of home ownership in New Zealand over this period, it was found that a trend of declining probability of ownership with age has been most pronounced for those in the lowest income quartile, and least pronounced for those in the top income quartile.

Looking at housing asset worth, data from the National Survey of Net Worth of New Zealanders showed that equity as a percent of value in homes owned by both couples and non-partnered individuals generally grows as people grow older. By late midlife (60 to 64 years) both couple and non-partnered individual homeowners have over 96 percent of equity in their dwellings. They found that couples own homes with a higher median value than non-partnered individuals (Statistics New Zealand & Retirement Commission, 2002).

A somewhat different pattern from the New Zealand research was demonstrated in the European longitudinal study SHARE. It found that most Europeans 50 years and over live in a house they own (Angelini & Laferrère, 2008). Of those who lived in a house 80 percent owned it, while only 46 percent of those who lived in a flat were owners. The highest rates of home ownership were among the midlife group 50 to 58 years, after which home ownership rates began to decline. The authors noted this could be of the result of a cohort effect, as home ownership was a development in many of the European countries after World War II. However like the New Zealand results, in nearly all the countries,<sup>71</sup> higher household income increased the likelihood of ownership. Being married rather than in a partnership also increased the likelihood of home ownership.

With respect to household crowding, the 2006 New Zealand Census showed that the midlife cohort 45 to 64 years had the lowest number of crowded households, after the older population of 65+ years (Ministry of Social Development, 2008). Applying the Canadian Crowding Index (see section 4 below), just 5 percent of this group lived in crowded households, whereas 10 percent of the 25 to 44 year cohort and 17 percent of the 15 to 24 year cohort lived in crowded households. The lower numbers of people in midlife living in crowded households may explain the dearth of literature pertinent to this age group on overcrowding.

This lower rate of crowding may be explained in the analysis of the second wave of the SHARE cross-national longitudinal study (Kohli, Kunemund & Vogel, 2008), which showed that the number of rooms per person (excluding bathrooms, kitchen, hallways and rooms which are let) generally increased with age, largely because of the effect of children leaving home and older people becoming widowed. Their data found the 50 to 60 year age group had fewer rooms per person than the older groups above it. These ranged from around two rooms per person in most of the European countries to just over one in the Czech Republic, Poland and Greece.

The housing studies reported here show that midlife New Zealanders are being negatively impacted on by the increase in housing costs and the decline in home ownership, but not to the same extent as the younger age groups.. Although the number below the Ministry of Social Developments housing affordability threshold has increased substantially, most midlifers possessed an accruing housing asset, and for many their children had left home which removed the problems of household crowding.

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<sup>71</sup> Sweden, Denmark, Germany, Netherlands, Belgium, France, Switzerland, Austria, Poland, Czech Republic, Italy, Spain and Greece.

#### 4. Data and Method

The data used as indicators of the ‘economic standard of living’ dimension of wellbeing in the EWAS midlife survey included current personal and household income (and their sources), total assets and type of assets owned, subjective measures of living standards, housing tenure and crowding.

In addition to income and wealth as objective measures of the standard of living of respondents, the two most internationally used relative poverty measures were applied to the data. These were first, the threshold applied by the OECD to compare countries, which is 50 percent of the median equivalent after tax household income; and second, the European Union’s Social Inclusion threshold and the United Kingdom’s poverty benchmark, which are both set at the higher level of 60 percent of the median, equivalent, disposable, household income. The UK, along with New Zealand, also applies two further thresholds. The first is the 60 percent threshold after housing costs have been paid, and the second is a constant value threshold benchmarked to the 1998 median, adding the cost of living for each year thereafter. This latter threshold is the most commonly used poverty line in New Zealand, and is updated in the annual Ministry of Social Development’s Social Report.

To apply these measures in the current research, each respondent’s total household income was first equivalised. Equivalisation is a procedure to adjust household incomes so that they are comparable between households of different size and composition. The revised Jensen Index was used, as it is the most commonly used method to equivalise incomes in New Zealand (Jensen, 1988).

For a subjective measure of the adequacy of the respondents’ income, respondents were asked to identify the adequacy of their current income with the question: “How well does your personal or household’s total income meet your everyday needs?” with the response that they had ‘not enough money’, ‘just enough money’, ‘enough money’, or ‘more than enough money’.

It was important to consider how the inadequacy of income might impact on affected people in midlife. For instance, what compromises are midlifers most likely to make when their income is inadequate to meet their needs? To address this, respondents were asked: “In the last 12 months, have there been times when you have gone without any of the following things?” with respect to eight categories of expenditure: essential food items, essential clothing, home heating, visiting their dentist, new glasses, hearing aid, insurances, and rates. Each of these categories of expenditure might be seen as important for the lifestyle and wellbeing of people in midlife. A further subjective measure of living standards and wellbeing was the dichotomous response (satisfied/not satisfied) to a question of whether the respondent was satisfied with their economic standard of living, similar to that used for other dimensions of wellbeing in this study.

Housing tenure data were collected across nine categories: owned by the respondent or their spouse with a mortgage; owned by the respondent or their spouse without a mortgage; owned by a family trust; owned by another family member; owned by the respondent and other family members; rented house; rented unit/house in a retirement village; boarding and other. In some analyses, cell sizes were increased by collapsing these categories further into owners (which included all the ownership categories above, plus tenure in a retirement village), renters, and other (which included boarders and others).

Household crowding was evaluated using the Canadian National Occupancy Standard (CNOS) crowding measure (Canadian Ministry of Housing Corporation, 1991), a measure widely used in New Zealand, Australia, and elsewhere (Statistics New Zealand, 1998). This measure is based on comparing the numbers of people living in a house with the numbers of bedrooms. Under such measures, a household is classified as crowded if it does not have enough bedrooms for its occupants, based upon set criteria for the sharing of bedrooms, which include:

- There should be no more than two people per bedroom
- Parents or couples share a bedroom
- Children under five years, either of the same or of the opposite sex, may reasonably share a bedroom
- Children under 18 years of the same sex may reasonably share a bedroom
- A child aged 5-17 years should not share a bedroom with one under five of the opposite sex
- Single adults 18 years and over and any unpaired children require a separate bedroom.

An index of crowding was calculated by dividing the required number of bedrooms by the actual number available. However, the data collected by the EWAS survey were not in sufficient detail for this measure to be accurately calculated. In particular, (i) there were no data on partnership relationships among adults, other than the respondent and their spouse in the household; (ii) the gender of other household members was not collected; and (iii) the age of other household members was not always recorded. This was overcome by creating two measures under different sets of assumptions. The first measure assumed that (i) all adults were paired couples; (ii) all people of unreported age were aged 18 years or over; and (iii) all those aged under 18 were of the same gender (so could be paired together). This measure would result in a lower-bound estimate of household crowding. The second measure assumed that (i) all adults were single; (ii) all people of unreported age were aged 5-17 years; and (iii) all those aged under 18 were of the opposite gender (so could not be paired together). This measure would result in an upper-bound estimate of household crowding. The 'true' measure of household crowding using CNOS would thus lie somewhere between these two measures.

The research was particularly interested in observed differences between the 5 five-year age cohorts in the sample (40-44 years, 45-49 years, 50-54 years, 55-59 years, and 60-64 years), and gender differences. Additionally, some variables were analysed in relation to education, marital status, and health status (measured using the two standard SF-12 measures of physical and mental health described in the chapter on Health).

The tables and figures below summarise these results. They do not include non-responses, don't knows, or refusals, and as a result, frequency totals may not be the same between different tables. The data have been re-weighted to make the results more representative of the New Zealand population aged 40 to 64, as noted in the Introduction.

## 5. Results

### 5.1 *Income*

There was a 76.2 percent response rate (n=1491) by the midlife sample to a question concerning total personal income before tax, which compares favourably with the 68 percent response for the older group 65 to 84 years. High response rates to personal questions about a person's income are difficult to achieve in any survey. The income distribution, as shown in Figure 5.1, demonstrates a reasonably standard distributed pattern apart from the extremes at both ends. The 4.7 percent registering no income may be individuals who do not qualify for a welfare benefit (possibly because of a partner's income, migrant status, etc.) or in some cases reflect business losses. The median personal income before tax was \$45,000, with a mean of \$65,330.

As Figure 5.2 shows, the most frequently source of personal income came from employment, as would be expected for this age group. Wages, salaries or self employment were a source of income for 90.6 percent of respondents. Investment income was received by 33.8 percent of respondents, rising to 36.4 percent if private pensions, annuities and trust funds were included. Some type of government benefit was an income source for 11.3 percent of respondents, rising to 13.3 percent if income received from the government owned Accident Compensation Corporation (ACC) was included.



Figure 5.1  
Distribution of Total Personal Income before Tax (%)

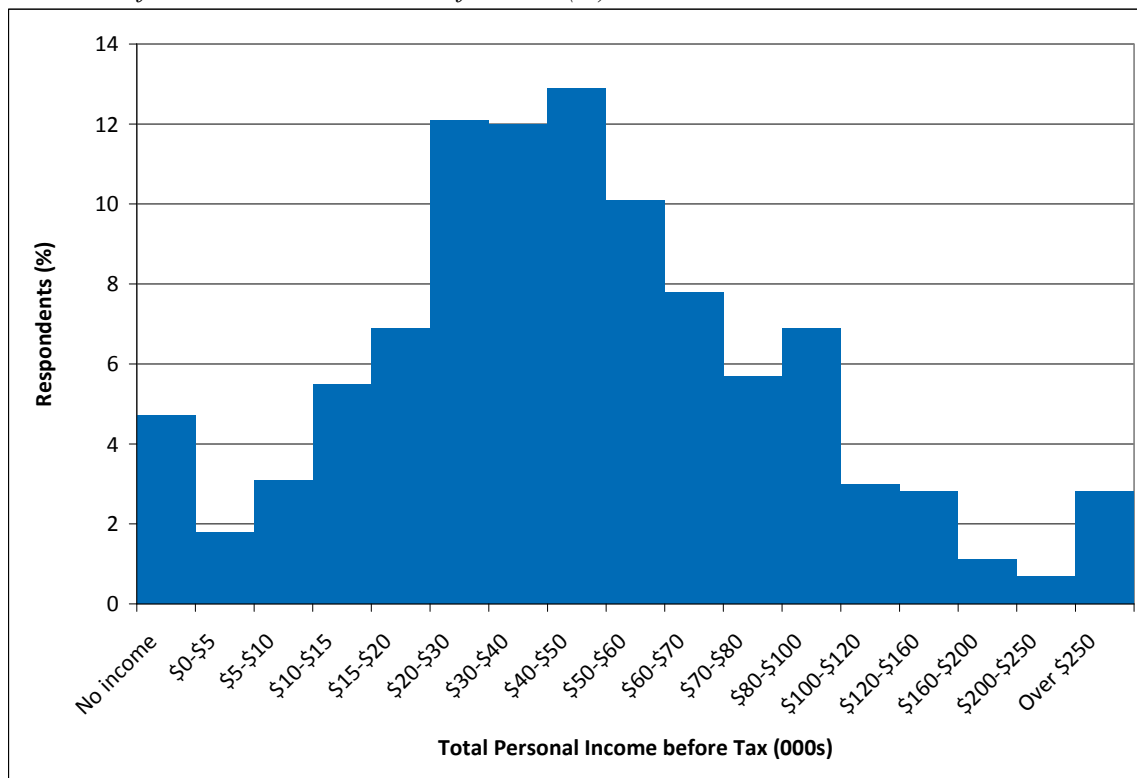
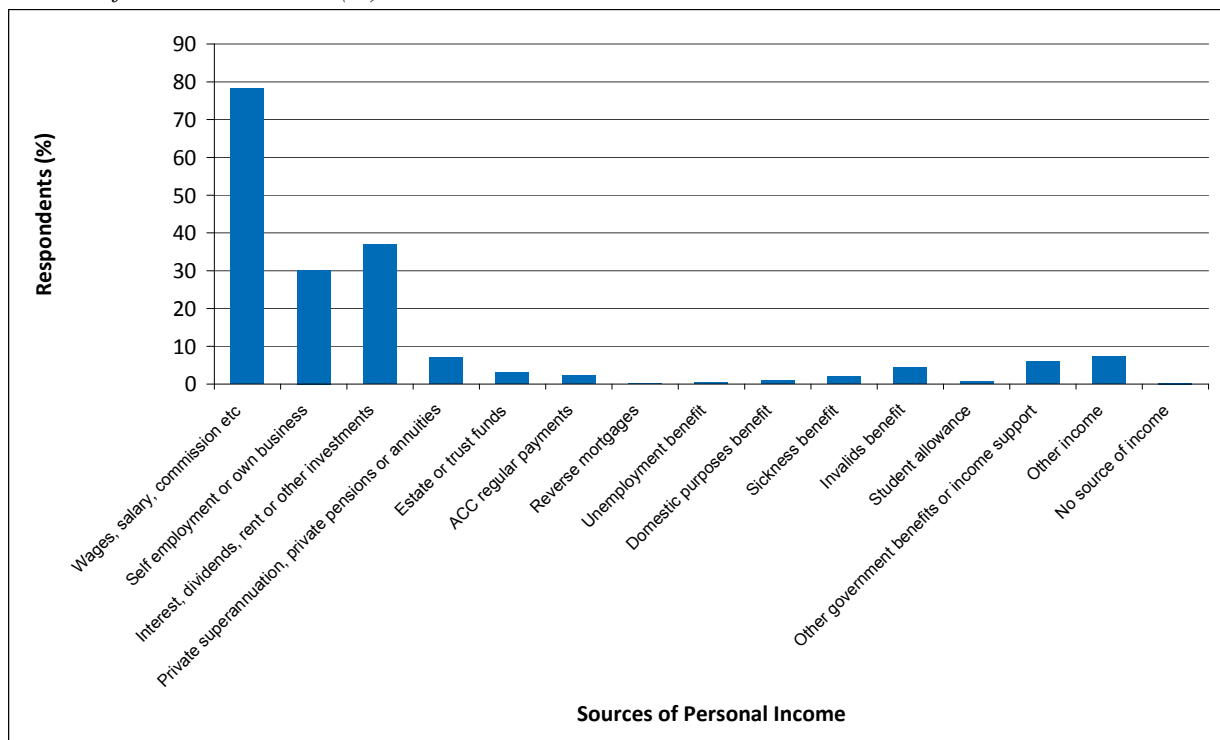
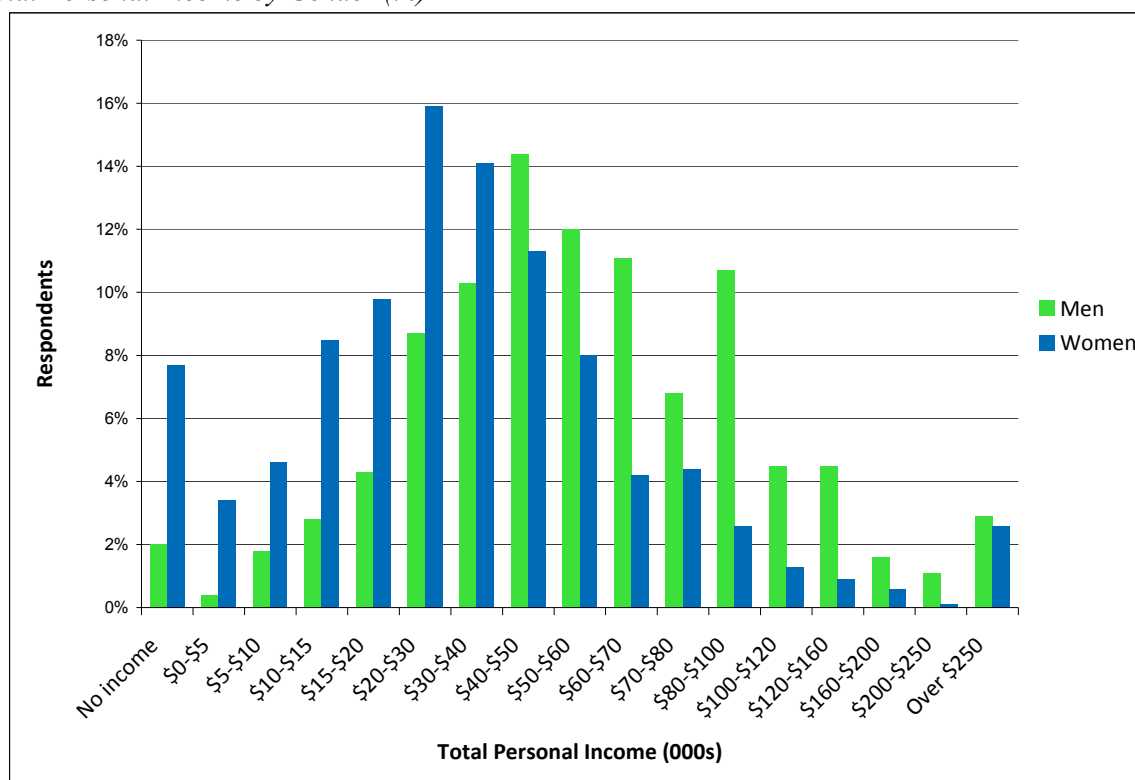


Figure 5.2  
Sources of Personal Income (%)



There were significant differences in the distribution of total personal income between women and men.<sup>72</sup> Table 5.1 shows the median income for women was only 55 percent of the median for men. Figure 5.3 demonstrates the domination of males in the higher personal income categories and the predominance of females in the lower categories.

Figure 5.3  
*Total Personal Income by Gender (%)*



There were modest differences in income by age.<sup>73</sup> As Table 5.1 shows, the average or mean income is higher for those over 55 years than for the cohorts behind them, while median income tends to be lower. This result suggests that, among the older cohorts, there is higher inequality of income, with more people in lower and middle income groups and a few wealthy people.

There was a highly significant association between personal income and education level.<sup>74</sup> Higher educational attainment was positively associated with higher income. Those with the highest level of education (university-level) had the highest median income, and those with only primary education had the lowest median income. Over 60 percent of respondents whose highest qualification was from primary or secondary school had incomes of \$40,000 or below, whereas only 32 percent of those with university qualifications lived on those incomes. Conversely, 18.5 percent of those with university qualifications had incomes of \$100,000 or above, whereas only 3.2 percent of primary school qualified and 8.6 percent of secondary school or vocational/trade qualified people did (data not shown). Table 5.1 shows the mean and median income for each educational category.

Marital status was significantly associated with personal income.<sup>75</sup> Table 5.1 shows median and mean personal incomes were highest for those who were married or living with a partner, and lowest among those who were widowed. Single people fared a little better than divorced or separated people. This

<sup>72</sup> Chi square statistic had a p-value of <0.001

<sup>73</sup> Chi square statistic had a p-value of 0.013

<sup>74</sup> Chi square statistic had a p-value of <0.001

<sup>75</sup> Chi square statistic had a p-value of 0.004

result differs from the older sample of 65 plus years, where divorced or separated people fared the worst, and widowed people a little better.

Table 5.1

*Average Total Personal Income by Age, Marital Status, and Education Level*

|                         | Median Income \$ | Mean Income \$ |
|-------------------------|------------------|----------------|
| Gender                  |                  |                |
| Male                    | 56,912           | 79,292         |
| Female                  | 31,137           | 49,507         |
| Age Cohort              |                  |                |
| 40-44                   | 45,000           | 65,370         |
| 45-49                   | 48,511           | 64,142         |
| 50-54                   | 45,000           | 62,067         |
| 55-59                   | 45,000           | 68,635         |
| 60-64                   | 35,000           | 68,038         |
| Education Level         |                  |                |
| Up to primary education | 34,448           | 40,023         |
| Secondary education     | 38,000           | 58,412         |
| Vocational or trades    | 45,463           | 63,026         |
| University education    | 60,000           | 87,319         |
| Marital Status          |                  |                |
| Single                  | 40,103           | 60,204         |
| Married/Partnered       | 45,000           | 66,230         |
| Widowed                 | 45,000           | 53,025         |
| Divorced                | 40,000           | 60,862         |

Income was also found to be significantly related to *household type*<sup>76</sup> (data not shown), similar to the relationship with marital status, in that couples had significantly higher personal income than respondents in other household types. *Location* was significantly related to total personal income.<sup>77</sup> Participants living in small towns had the lowest incomes, while those in urban areas and on the outskirts of a city had higher incomes. Rural dwellers tended to be either on lower or higher incomes with fewer in the middle range (data not shown).

Finally, total personal income was significantly related to *physical health*<sup>78</sup> but not *mental health*. Participants on lower incomes showed lower physical health scores. This finding contrasts with the earlier survey of 65 to 84 year-olds where no significant relationship was found between total personal income and either physical or mental health. However, the association of personal income with physical health is consistent with most international studies of middle-aged people.

## 5.2 Personal Income and Wellbeing

A significant positive relationship was found between *personal income and satisfaction with economic standard of living*,<sup>79</sup> as shown in Figure 5.4. There was also a significant relationship between *personal income and overall wellbeing*,<sup>80</sup> as shown in Figure 5.5. A greater proportion of those who felt satisfied with their life lived on higher incomes and a greater proportion of those who were dissatisfied lived on lower incomes. A significant positive relationship was also found between *satisfaction with economic standard of living and overall wellbeing*,<sup>81</sup> as shown in Figure 5.6.

<sup>76</sup> Chi square statistic had a p-value of 0.002 for household type 0.004 for marital status

<sup>77</sup> Chi square statistic had a p-value of 0.001

<sup>78</sup> Correlation is significant at the 0.01 level

<sup>79</sup> Chi square statistic had a p-value of <0.001

<sup>80</sup> Chi square statistic had a p-value of <0.001

<sup>81</sup> Chi square statistic had a p-value of <0.001

Figure 5.4  
*Satisfaction with Economic Standard of Living by Personal Income (%)*

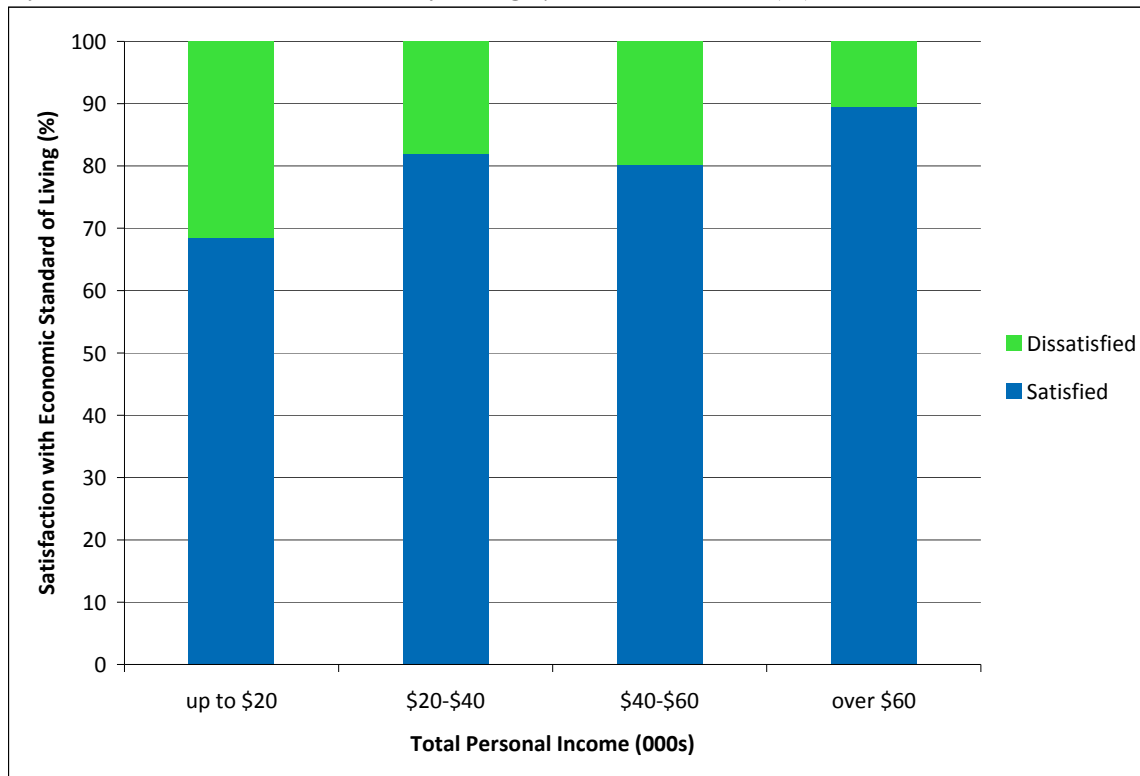


Figure 5.5  
*Level of Overall Wellbeing by Personal Income (%)*

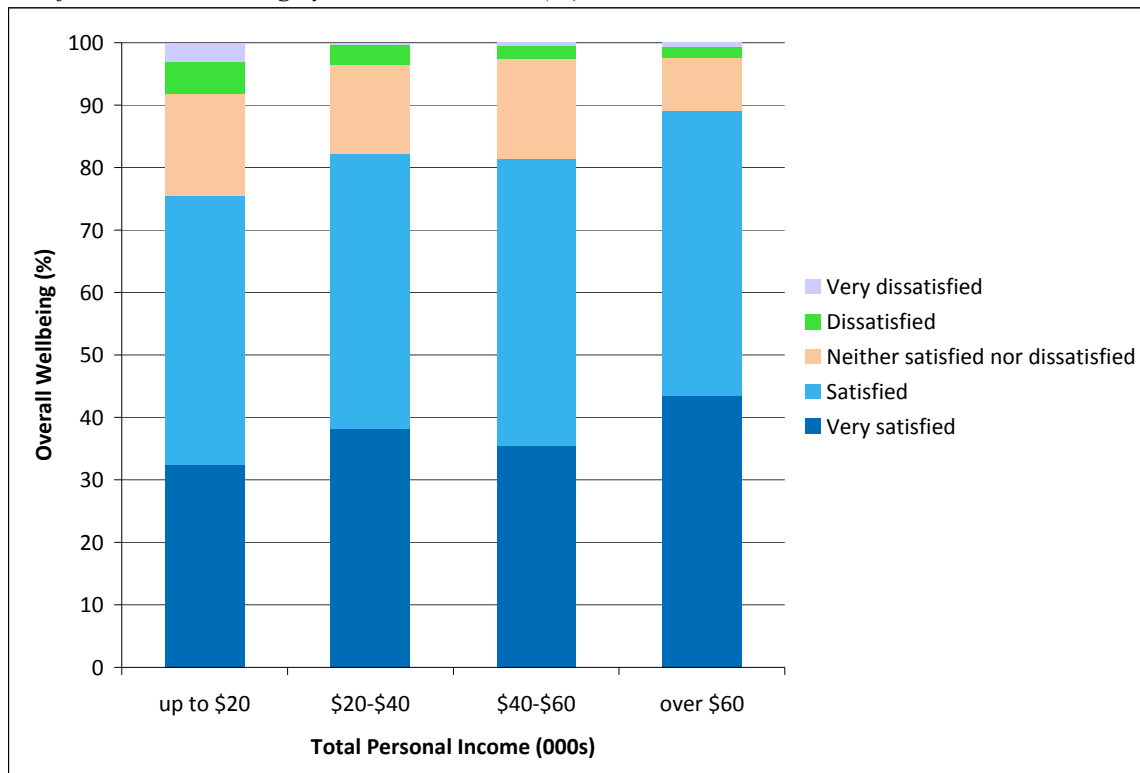
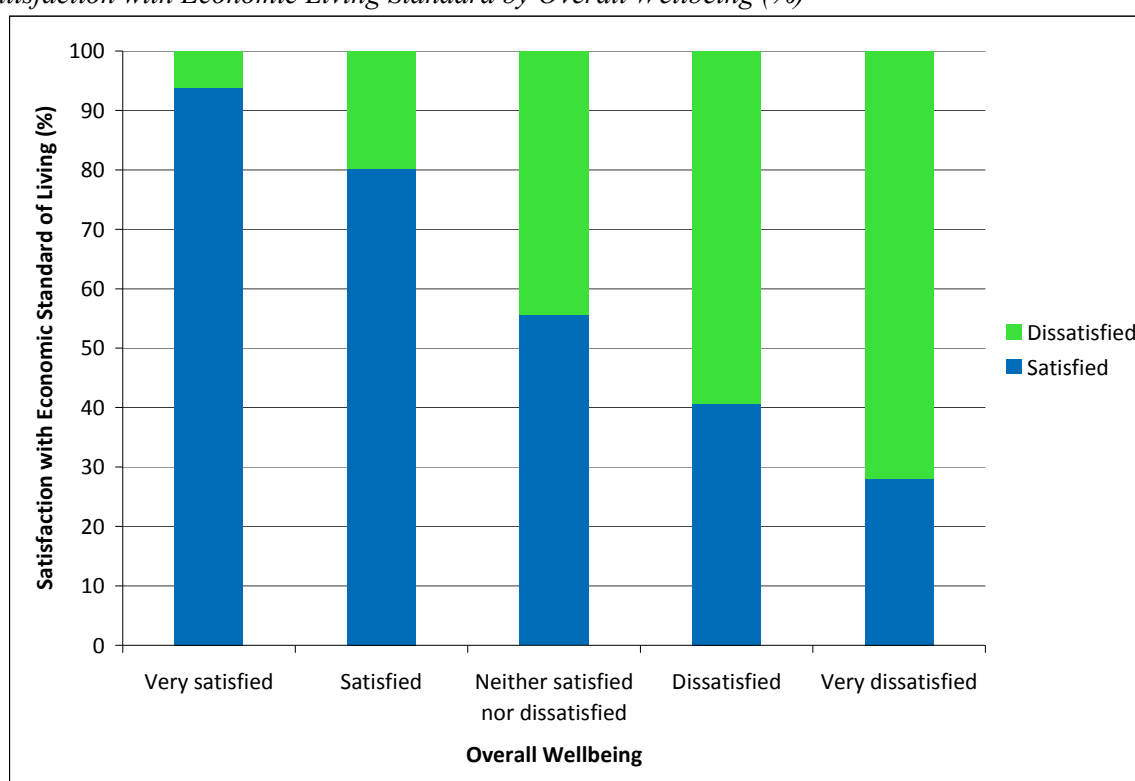


Figure 5.6  
*Satisfaction with Economic Living Standard by Overall Wellbeing (%)*



In summary, these results demonstrate the positive association between personal income and wellbeing that is consistently noted in the literature (Cummins et al., 2001; Hansson et al., 2005; Easterlin, 2006). In comparing the two age cohorts (40-64 year-olds and 65-84 year-olds), the positive relationship between total personal income and wellbeing is more consistent within the 40-65 year-old cohort than within the older 65 to 84 year age group (Waldegrave & Cameron, 2009).

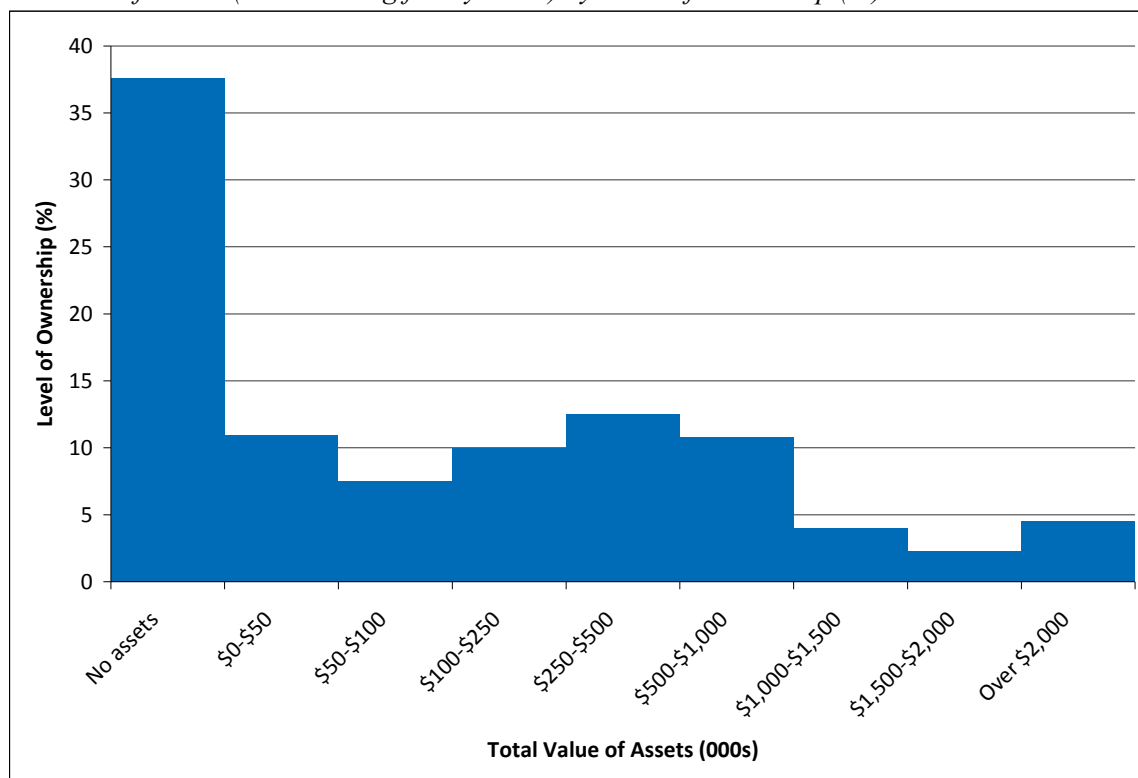
### 5.3 Assets

There was an 81.7 percent response rate (N=1,599) in the EWAS survey to a question concerning the total value of household assets not including the value of the family home. This compares favourably with the 75 percent response rate for the older 65 to 84 year-old group.

The resulting distribution is displayed in Figure 5.7. 37.6 percent of respondents had no assets at all other than a family home (if they had one), and a further 18.4 percent possessed assets worth \$100,000 or less, while 21.6 percent had assets worth \$500,000 or more.

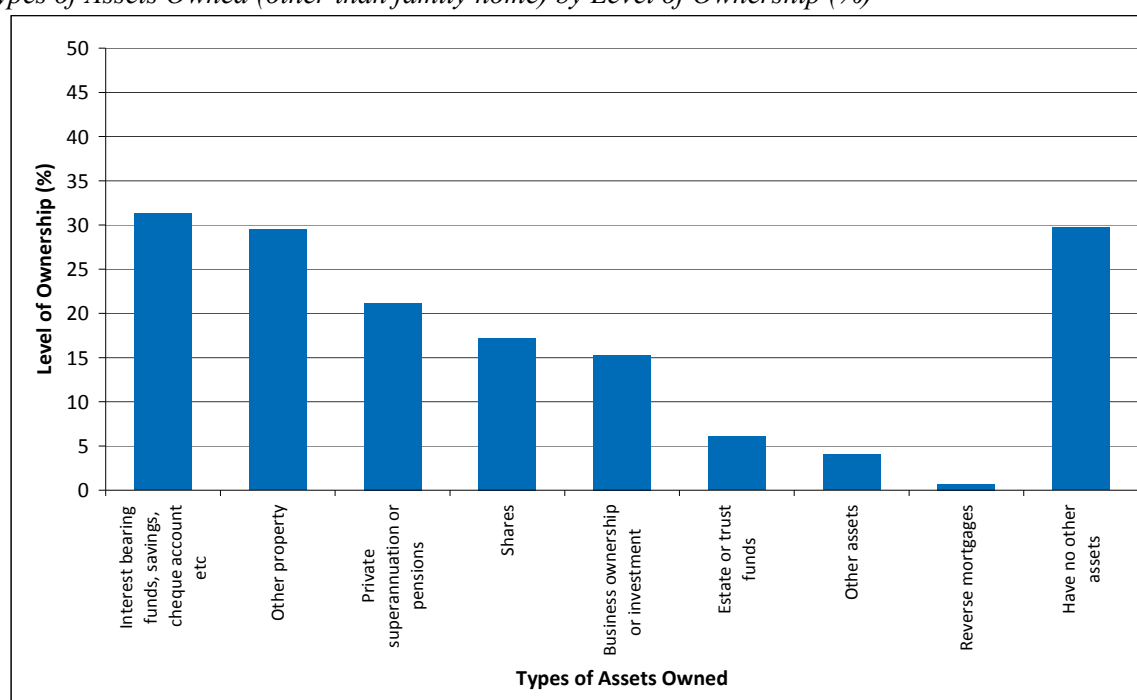
A majority (56 percent) having assets of \$100,000 or less, most of whom possessed no assets other than the family home, suggests there will be serious fiscal challenges for policy makers as these cohorts move in large numbers into old age and retirement. However, around a fifth of respondents had assets worth more than \$500,000, demonstrating the significant asset inequality in this group. This result should also be seen in the light of the lower levels of home ownership noted later in the results section. However, the 40-64 age-group possessed more assets than the 65 plus group (Waldegrave & Cameron, 2009), which could suggest the top two to three income deciles may be better prepared for living well in later life. Nevertheless, the differences point to greater inequality in the midlife group. The difference between the older and midlife groups may also be explained in part by some of the older group having begun to use their asset wealth.

Figure 5.7  
*Total Value of Assets (not including family home) by Level of Ownership (%)*



The most common assets held by the 40-64 year-old respondents were interest-bearing funds, savings, cheque accounts or cash (31.3 percent), as Figure 5.8 shows. Owning a property separate from the family home was almost as common (29.5 percent). Other commonly held assets included private superannuation pensions or annuities (21.2 percent), shares (17.2 percent) and business ownership or investment (15.3 percent). Of the respondents, 29.7 percent said that they had no assets (compared with 37.6 percent on the previous question relating to total assets). However, it should be noted that the response rate to this question (98.9 percent) was significantly higher than to the value of total assets question, so this probably represents a more valid estimate of the number of midlife New Zealanders with no other substantial assets other than the family home.

Figure 5.8  
Types of Assets Owned (other than family home) by Level of Ownership (%)



As with personal income, men had significantly more total assets in value than women.<sup>82</sup> As Figure 5.9 illustrates, 42.4 percent of women had no assets (other than the family home where one was owned) compared with 33 percent of men, while 19.4 percent of women had assets of \$500,000 or more, compared with 23.5 percent of men.

The relationship between *total assets and age* was much weaker than that between personal income and age.<sup>83</sup> As shown in Figure 5.10, the tendency was for younger participants to possess fewer assets than the older ones. For example, 42.2 percent of the 40 to 44 year-olds had no assets apart from the family home, compared with 30.6 percent of the 60 to 64 year-olds. Conversely, 8.8 percent of 40 to 44 year-olds possessed assets worth over \$1million, while 15.0 percent of 60 to 64 year-olds did. This result is probably because assets accumulate with age, despite the lower median income of the 60 to 64 year-olds compared with the other age categories, a pattern noted in the literature (Statistics New Zealand, 2008c; Department of Prime Minister and Cabinet, 2008).

There was a significant association between *asset wealth and current marital status*, just as there was for personal income.<sup>84</sup> While 54.1 percent of single, 53.8 percent of widowed, and 66.7 percent of divorced or separated people had no assets beyond the family home, just 30.9 percent of married or partnered respondents possessed no assets (data not shown).

<sup>82</sup> Chi square statistic had a p-value of 0.008

<sup>83</sup> Chi square statistic had a p-value of 0.040

<sup>84</sup> Chi square statistic had a p-value of <0.001

Figure 5.9  
*Total Value of Assets (not including family home) by Level of Ownership and Gender (%)*

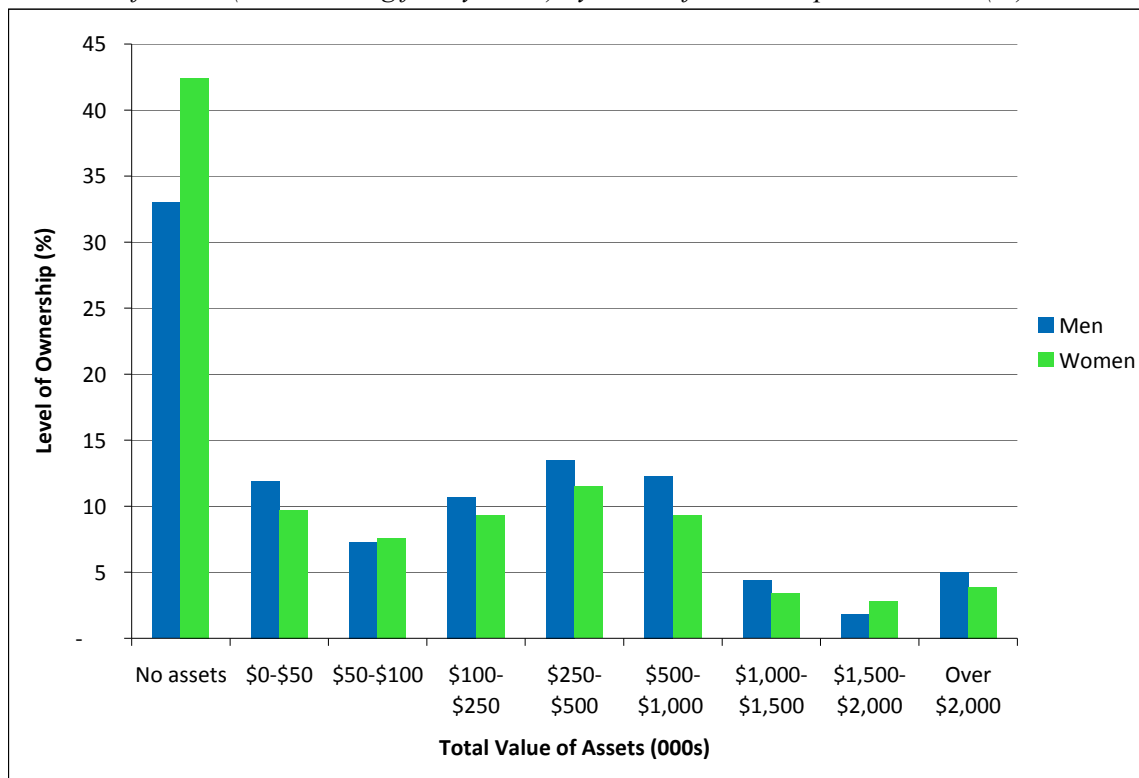
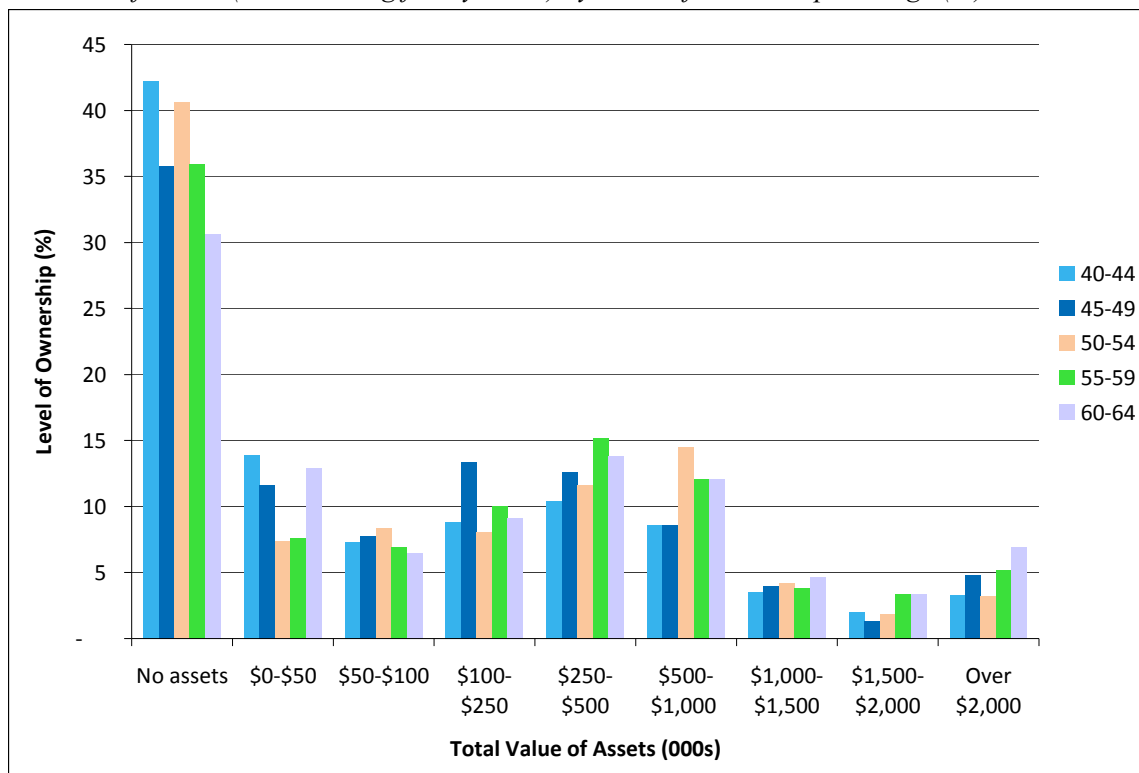


Figure 5.10  
*Total Value of Assets (not including family home) by Level of Ownership and Age (%)*





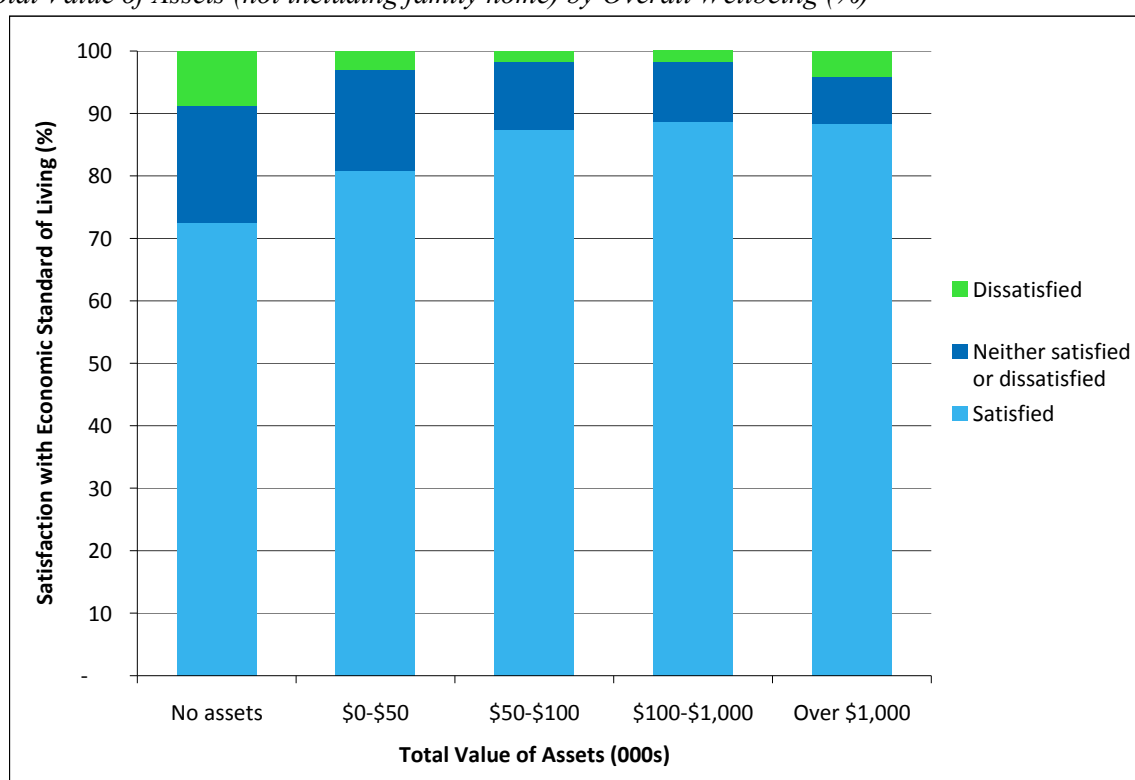
As with personal income, asset wealth demonstrated a positive and significant association with *educational attainment*.<sup>85</sup> While 60.2 percent of those with no higher than primary school education possessed no assets beyond the family home, 29.2 percent of those with university-level qualifications possessed no assets (data not shown). Total assets were also significantly associated with *location*.<sup>86</sup> Those in rural areas possessed a greater value of assets, probably because of the large farming assets and land holdings in rural areas.

Asset accumulation was also significantly positively associated with both *physical*<sup>87</sup> and *mental health*.<sup>88</sup> This contrasts with the 65 to 84 year-old group, where physical health was significantly associated with wealth, but mental health was not (Waldegrave & Cameron, 2009). Thus in both age groups, physical health is positively associated with asset accumulation, but mental health is associated with asset accumulation only with the midlife group.

Finally, as for personal income, there was a significant positive relationship between *total personal assets (other than the family home) and satisfaction with economic standard of living*.<sup>89</sup> Participants with fewer assets were more likely to be dissatisfied than those with greater wealth. Mirroring this result, there was also a significant positive association between *asset wealth and overall wellbeing*<sup>90</sup> when the five categories of wellbeing were collapsed into three,<sup>91</sup> as shown in Figure 5.11.

Figure 5.11

*Total Value of Assets (not including family home) by Overall Wellbeing (%)*



<sup>85</sup> Chi square statistic had a p-value of <0.001

<sup>86</sup> Chi square statistic had a p-value of <0.001

<sup>87</sup> Chi square statistic had a p-value of <0.001

<sup>88</sup> Chi square statistic had a p-value of <0.003

<sup>89</sup> Chi square statistic had a p-value of <0.001

<sup>90</sup> Chi square statistic had a p-value of <0.001

<sup>91</sup> To enable adequate cell size

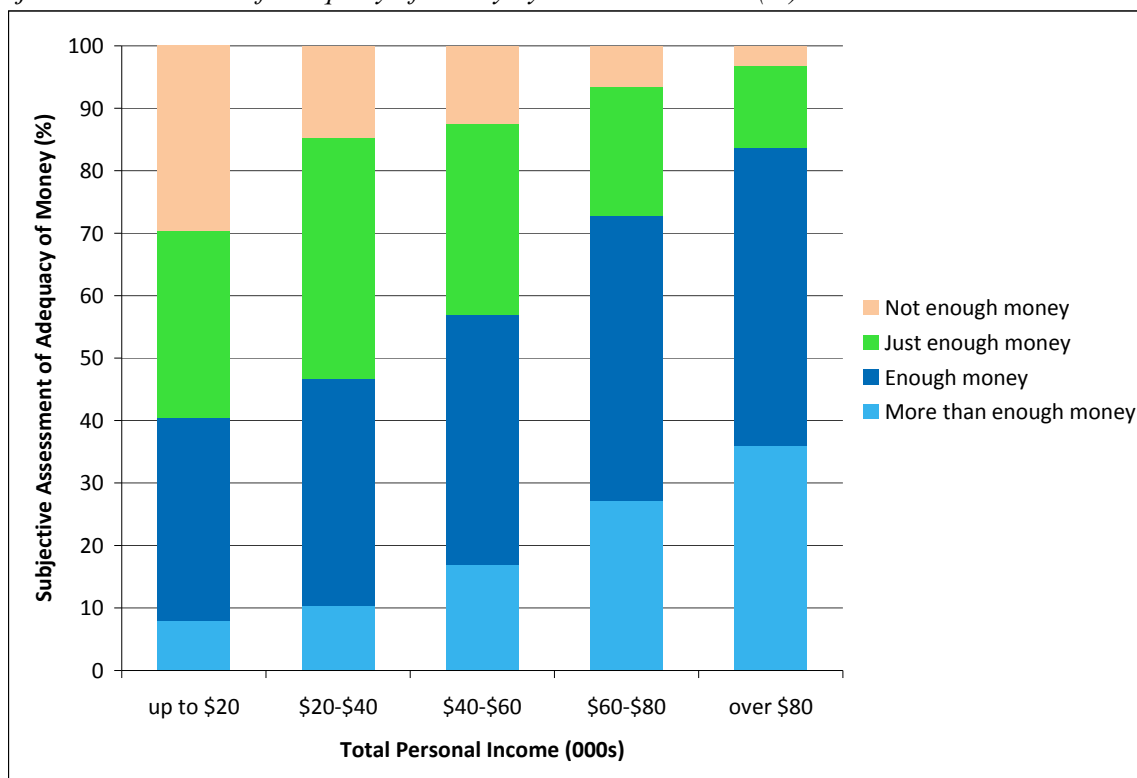
#### 5.4 Living Standards and Poverty

Respondents were asked how well their total income met their everyday needs for accommodation, food, clothing and other necessities. Over 40 percent considered they had ‘enough money’, and a further 16.6 percent said they had ‘more than enough money’. However, 28.6 percent said they had ‘just enough money’, and 14.8 percent said that they had ‘not enough money’. There was a significant relationship between this subjective assessment of adequate income and actual personal income.<sup>92</sup> As Figure 5.12 shows, just 40.6 percent of those with less than \$20,000 of personal income said they had enough or more than enough money, compared to 56.9 percent of those with personal income between \$40,000 and \$60,000, and 83.4 percent of those with personal income over \$80,000. More people in the lowest income bracket (29.8 percent) stated they had not enough money, compared with just 3.1 percent of those in the highest income bracket.

There were also significant positive relationships between the subjective assessment of adequate income and satisfaction with both economic standard of living and overall subjective wellbeing.<sup>93</sup> Of those stating they had enough or more than enough money, 95.4 percent were satisfied with their economic standard of living, compared with just 43.6 percent of those who stated they had not enough money (data not shown). Figure 5.13 illustrates the close relationship between subjective assessment of the adequacy of money and overall wellbeing.

Figure 5.12

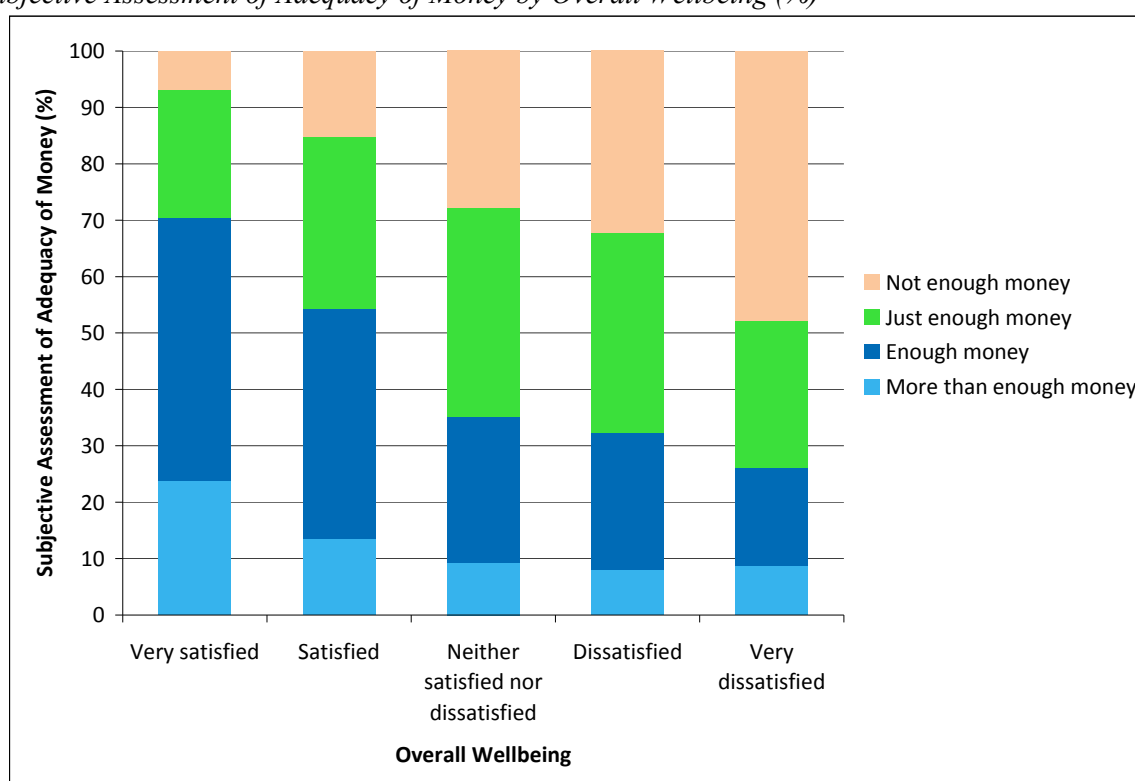
*Subjective Assessment of Adequacy of Money by Personal Income (%)*



<sup>92</sup> Chi square statistic had a p-value of <0.001

<sup>93</sup> Chi square statistics had a p-value of <0.001 for satisfaction with economic standard of living, and <0.001 for overall wellbeing.

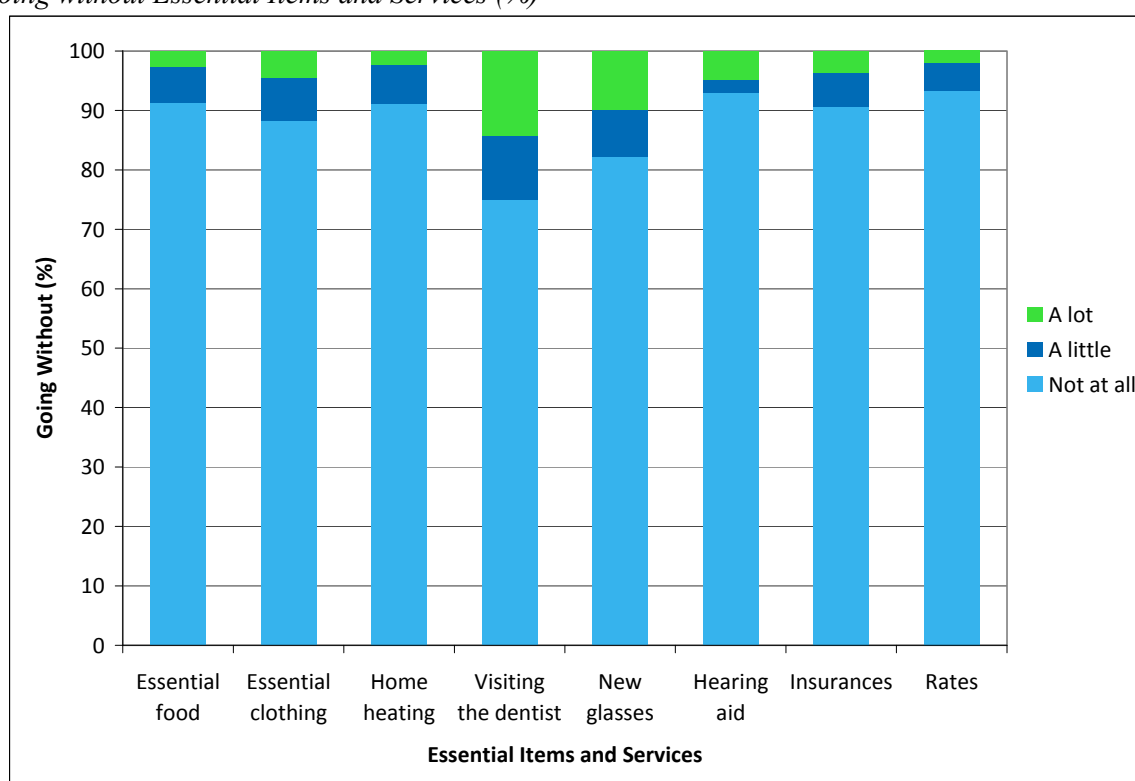
Figure 5.13  
*Subjective Assessment of Adequacy of Money by Overall Wellbeing (%)*



When asked whether, over the last twelve months, there had been times when they had gone without essential items or services, most respondents stated ‘not at all’ (in most cases around 90 percent), as Figure 5.14 shows. Nevertheless, some essential items or services, like essential clothing (11.7 percent), visiting a dentist (24.9 percent) and buying new glasses (17.8 percent) tended to be foregone relatively more frequently. As with the 65 to 84 year-old cohort, health related items featured most strongly. However unlike the older group, considerably more participants identified essential clothing as an item they had gone without because they could not afford it.

The standard relative poverty measures, noted in the Data and Methods section of this chapter (i.e. the OECD 50 percent and European Union/UK 60 percent of median, equivalent, disposable, household income), were applied to the 921 respondents who answered both income and housing cost questions. The number of people between the ages of 40 and 64 years in these households was 1,669. A third measure was also applied, which was the constant value threshold benchmarked to the 1998 median with the addition of the cost of living each year since then. As noted earlier, this is the threshold used in New Zealand’s Social Report each year, and is the commonly used measure of poverty in New Zealand (Ministry of Social Development, 2008).

Figure 5.14  
Going without Essential Items and Services (%)



The results showed that these poverty levels were similar to those found by the Ministry of Social Development. Table 5.2 provides a summary of the three measures and their comparison with the Ministry of Social Development results. It is important to note that the population for the EWAS study comprised a national random sample of people between the ages of 40 and 64 years, whereas the Ministry of Social Development calculations apply the Household Economic Survey figures, also a national random sample, to the whole population for the 50 and 60 percent of median income thresholds. Their constant value threshold was, however, grouped by age. The comparison in this discussion is made between MSD's 45-64 year-old group and EWAS's 40 to 64 year-old group.

The EWAS data showed 10.8 percent of the sample was below the 60 percent constant value poverty threshold, which is almost identical to the Ministry of Social Development's figure of 11 percent for a similar age group (Perry, 2008). The EWAS sample recorded lower levels of poverty than the Ministry of Social Development's results for the 50 and 60 percent poverty thresholds for the whole population. Table 5.2 shows these differences were minimal at the 50 percent of median income threshold, but more substantial at the 60 percent threshold.

Table 5.2  
Numbers below Poverty Thresholds from the EWAS and MSD Studies (%)

| Poverty Threshold                        | EWAS: people aged 40-64 | MSD: people           |
|--|-------------------------|-----------------------|
| 50% of median                            | 8.9                     | 10 (whole population) |
| 60% of median                            | 12.6                    | 18 (whole population) |
| 60% constant value used in Social Report | 10.8                    | 11 (ages 45-64)       |

### 5.5 Housing

Home ownership was high among respondents, with mortgaged and freehold houses comprising over 77 percent of all tenure (see Figure 5.15). Although this was a percentage point higher than for the 65 to 84 year-old group, the ownership types were different. For example, fewer respondents in the 40-64 age group owned their house without a mortgage (35.3 percent – about half the number of those in the older group). The ownership differences between the groups is further illustrated when houses owned with or without a mortgage, family trusts and homes owned by other family members are added: together these arrangements make up 83 percent of tenure, compared with nearly 92 percent for the older group. Conversely 16.1 percent of the 40-64 year-old respondents rented properties, whereas only 10.8 percent of the older group did (Waldegrave & Cameron, 2009).

These results are consistent with the studies referred to in the literature section, which showed a steady decline in home ownership, particularly with the younger cohorts and those on low incomes (DTZ New Zealand, 2007; Morrison, 2007; Ministry of Social Development, 2008). As a consequence, the numbers renting have been increasing. Some of the difference in home ownership between the two age groups may be a cohort effect, reflecting the general tendency to asset accumulation as people age.

As with the older cohort, no significant relationship was found between housing tenure (collapsed into owners, renters, and others) and gender. However, in contrast to the 65 to 84 year-old group, significant associations were found between housing tenure, education and urban/rural location.<sup>94</sup> Those with higher educational qualifications were more likely to be homeowners rather than renters, and those who lived in rural areas were more likely to be homeowners than those who lived in urban areas. A significant relationship was also found with age<sup>95</sup> as Figure 5.16 shows, with older participants more likely to be owners, and the percentage of renters progressively decreasing across each successively older cohort, as noted in the literature above (DTZ New Zealand, 2007; Ministry of Social Development, 2008).

As with the older group, housing tenure was significantly related to *marital status*.<sup>96</sup> Around 88.0 percent of each category of married, partnered people and widowed people owned their own home, either by themselves, with other family members, or through a family trust, whereas only 60.6 percent of single people and 67.0 percent of divorced or separated people did (data not shown).

Housing tenure was also significantly related to *participants' income and the total value of their assets* other than the family home.<sup>97</sup> When the higher and lower income groups were compared, a greater proportion of those on higher incomes were owners and a greater proportion of those on lower incomes were renters. Among owners, 32.7 percent had no other assets, compared with 60.0 percent of renters and 37.2 percent of others (data not shown). These findings are consistent with Morrison's study (2007) noted earlier in this chapter.

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<sup>94</sup> Chi square statistic had a p-value of 0.008 for education and <0.001 for urban/rural location

<sup>95</sup> Chi square statistic had a p-value of <0.001

<sup>96</sup> Chi square statistic had a p-value of <0.001. Housing tenure when compared with marital status was collapsed into 2 categories from 3. These were 'Owners' and 'Renters'. The third category entitled 'Others' consisted of only 1.4 percent of participants and the cell size was too small for a reliable chi square calculation.

<sup>97</sup> Chi square statistic had a p-value of 0.001 for income and <0.001 for asset total. Housing tenure when compared with income was collapsed into 2 categories from 3. These were 'owners' and 'renters'. The third category entitled 'others' consisted of only 1.4 percent of participants and the cell size was too small for a reliable chi square calculation.

Figure 5.15  
Types of Housing Tenure (%)

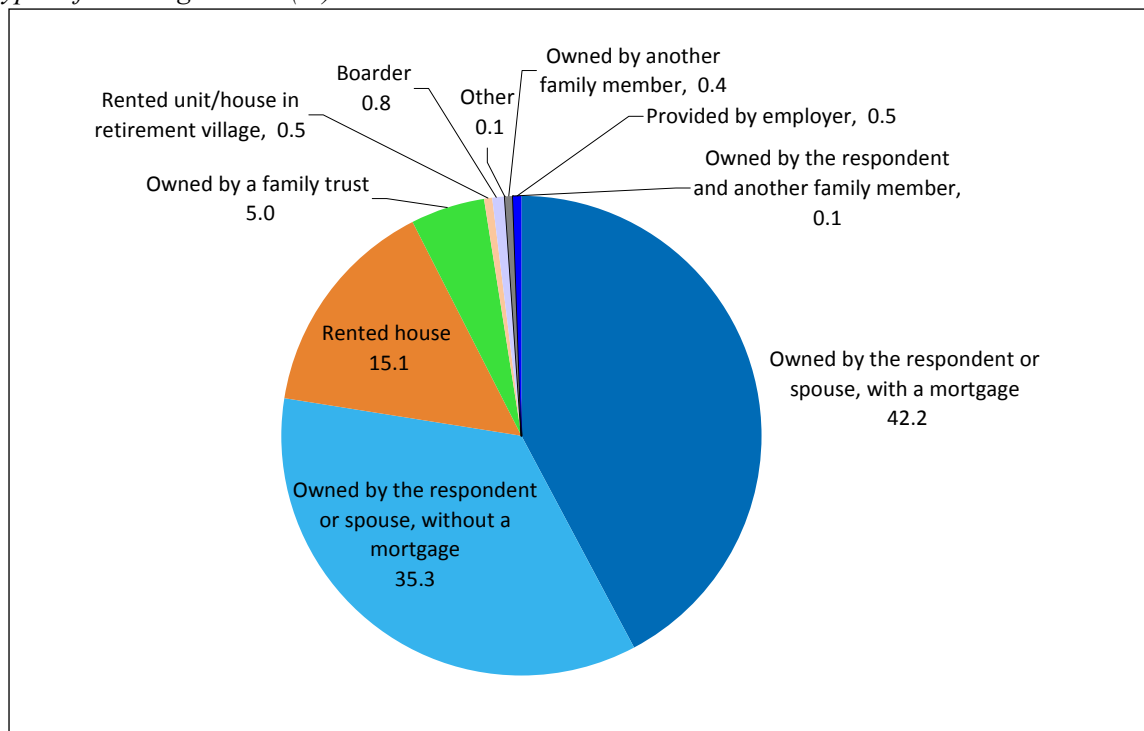
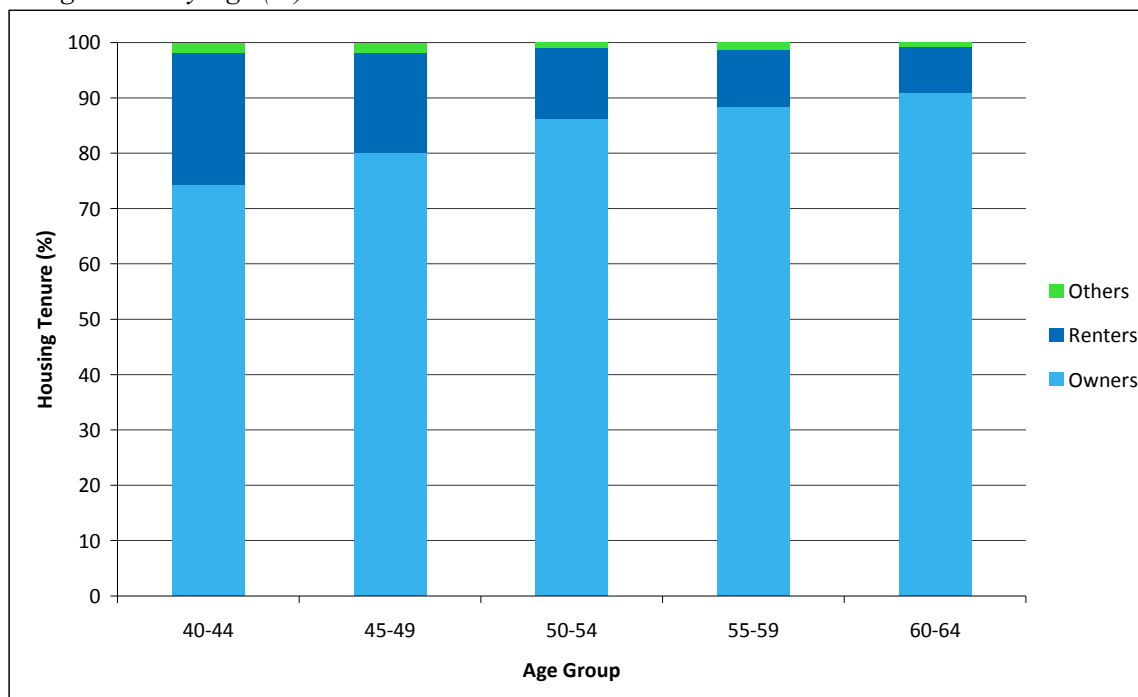


Figure 5.16  
Housing Tenure by Age (%)

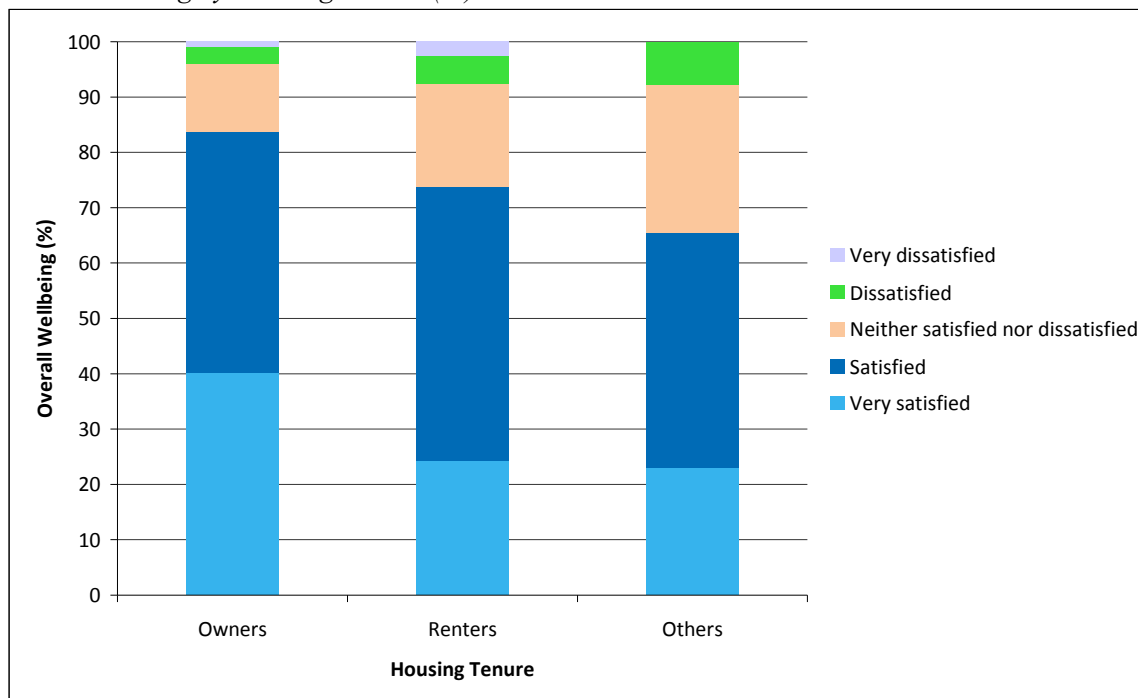


As with income and assets, there was a significant *positive relationship between housing tenure and satisfaction with economic standard of living*.<sup>98</sup> Satisfaction with economic standard of living was higher among owners (83.6 percent) than among renters (62.3 percent) or others (70.4 percent) (data

<sup>98</sup> Chi square statistic had a p-value of <0.001

not shown). The *relationship between housing tenure and overall wellbeing* was also significant<sup>99</sup> as demonstrated in Figure 5.17. The proportion of respondents who were very satisfied overall was highest among owners (40.1 percent), and lowest among renters (24.3 percent) and others (23.1 percent).

Figure 5.17  
*Overall Wellbeing by Housing Tenure (%)*



Housing tenure was significantly related to mental health<sup>100</sup> but not to physical health among this age group. In contrast, housing tenure was significantly related to physical but not to mental health for the 65 to 84 year-old sample. Owners in the midlife group had higher mental health scores than other forms of tenure.

Finally, higher and lower bounds for crowding levels were both significantly associated with housing tenure for the midlife group.<sup>101</sup> Household crowding was very low among the 65 to 84 year-olds, but it was clearly different for this younger group. Crowding was highest among renters and least among home owners, for both the lower and higher bound thresholds (data not shown).

## 6. Conclusion

As with the earlier survey of older people aged 65 to 84 years, the results of this research of midlife New Zealanders are broadly congruent with those of the international studies noted at the beginning of the chapter. Personal income and wealth (excluding the family home) were both significantly associated with gender and education. There was also a significant, but modest, association with age in both cases. Men had more income and wealth than women; the more educated had more income and wealth than the less educated; and younger cohorts had a higher mean income but less wealth than older cohorts within the 40-64 year-old age-group. Income and asset wealth were also significantly associated with marital status, being highest for those married or living in a partnership, who were the least likely to report having no assets other than the family home.

<sup>99</sup> Chi square statistic had a p-value of <0.001

<sup>100</sup> Chi square statistic had a p-value of <0.001

<sup>101</sup> Chi square statistics had a p-value of <0.001 for both the lower and higher bounds of the crowding index

The midlife group demonstrated significantly stronger associations between both income and asset wealth and overall wellbeing than the older group. These findings are consistent with the literature on this subject. Overall wellbeing was also significantly associated with the objective measure of housing tenure and the subjective assessment of living standards. In other words, home ownership was positively associated with overall wellbeing, and going without essential items and services was negatively associated with overall wellbeing. The objective indicators of income and wealth were also significantly associated with the subjective indicator of satisfaction with economic standard of living.

Subjective assessments of living standards were generally in line with the results of the objective indicators of income and wealth. The subjective indicator of perceived 'adequacy of money' was significantly related to actual personal income. Respondents had gone without very few essential items or services, but those that were most often foregone were essential clothing, visiting the dentist and new glasses. As with the older group, this suggests that a poor standard of living might be reflected in poorer health. This result was further supported by the significant positive relationships observed between asset ownership and both physical and mental health, and between income and physical health.

Nearly 9 percent of the midlife group were below the more stringent OECD poverty threshold of 50 percent of median disposable household, equivalised income. This contrasts with the older 65 to 84 year-old group, who were kept above this mark through their superannuation payments, which are higher than the threshold. 12.6 percent fell below the higher EU threshold of 60 percent, far fewer than the 49.5 percent for the older group. As noted in the previous study of the 65 to 84 year-old group, the income for older New Zealanders tends to cluster around the 60 percent of the median (Waldegrave & Cameron, 2009). At the more commonly used (in New Zealand) constant value threshold (60 percent of median household income set in 1998 with the addition of the cost of living each subsequent year), 10.8 percent fell below, a figure almost identical to the Ministry of Social Development's 11 percent for a similar but slightly older age group. While this figure is lower than for other age groups, it still presents an important challenge for policy makers.

Housing tenure was dominated by home ownership, which was significantly associated with age and marital status, but not gender. Older cohorts were more likely to be owners than younger cohorts, and couples and widows were much more likely to be owners than single or divorced people. Housing tenure was also positively associated with education and rural location. The levels of household crowding were greater for renters than home owners.

Overall, the results were largely in line with expectations, demonstrating much the same trends as other New Zealand and international studies. The close association between objective and subjective indicators and overall wellbeing suggests that the economic standard of living (broadly defined to include income, assets, living standards and housing) is a significant contributor to the wellbeing of midlife New Zealanders.

The key policy issues arising from the results of the research in this chapter centre on the declining rates of home ownership and the low level of asset accumulation for the majority of participants. Midlife is usually the time of peak income earning prior to retirement. However the combination of 11 percent of participants below the Ministry of Social Development's low income threshold, 56 percent with either no assets or less than \$100,000 worth beyond the family home, the decline in home ownership and the political will necessary to ensure New Zealand Superannuation does not fall behind as the baby boom generation reaches old age, together pose a serious challenge for future policy.

As the combination of a reasonably generous (by international standards) universal superannuation scheme and high levels of home ownership largely protect the current elderly population from poverty, so the combination of adequate income and decent and affordable housing will be necessary as the current midlife cohorts move into older age. Policy solutions will need to be found for



sustaining the costs of home ownership for those who own their houses, and greater investment in social housing for most of those who don't. Market rents can be expected to be beyond the affordability threshold for older people living largely on superannuation and minimal assets. Sustainable solutions for the ongoing payment of superannuation in a way that preserves its purchasing power will also need to be devised if most older people are to live free of poverty, particularly in the light of the recent Government decision to suspend contributions to the New Zealand Superannuation Fund (English, 2009).

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# Chapter 6: Rights and Entitlements among Midlife New Zealanders

Peter King

## 1. Introduction

Current debates about the sustainability of the New Zealand Superannuation scheme, and the adequacy of rest home and other elder care and medical facilities, highlight the importance of the nature and availability of rights and entitlements for older people and, in turn, for the general population. People's expectations of the availability of these entitlements affect their expectations about what old age might hold for them, and how they might prepare for it.

The protection and provision of such rights and entitlements by the State is a feature of the modern welfare state. In New Zealand, the importance of rights and entitlements for the general population is acknowledged through the inclusion of 'rights' as a dimension of social wellbeing in the Ministry of Social Development's annual Social Report (e.g., Ministry of Social Development, 2008). In these reports, rights are measured with reference to the participation of citizens in civil and political affairs, without being subject to discrimination and abuses of power. These rights are considered fundamental to the organisation and functioning of society "in a way that enables all people to develop to their full potential" (Ministry of Social Development, 2008). The Social Reports use four indicators of civil and political rights: voter turnout, the representation of women in government, perceived discrimination, and perceived corruption. However the focus of this chapter is on the expectation of service and support, rather than the political participation focus of the Social Reports.

Another State-sponsored initiative, and one that implies rights related to age, is the Positive Ageing Strategy (Dalziel, 2001). The ten goals and associated key actions of the Strategy overlap with the areas of rights and entitlements discussed in this chapter, particularly the goals associated with income, health, housing and ageing in place.

In this chapter rights and entitlements are considered from the viewpoint of midlife people's expectations that five particular sources of support will be available to them in their old age if needed. The five sources of support about which expectations are considered are financial security, adequate health care, residential care, support from family, and support from the government and government agencies. In the capabilities approach to wellbeing, the dimension of rights and entitlements are examples of the instrumental freedoms that are necessary for the achievement of wellbeing.

In this study of midlife people, the focus is on their expectations of these forms of support being available in the future, when they are older and in need of them, rather than whether they are available to them at present. In this context, positive expectations suggest a confidence in the present and a sense of belonging as a citizen, with associated rights and entitlements. Negative expectations, on the other hand, would suggest fear and stress in the present because of uncertainty about their future availability.

The chapter presents preliminary findings from the analysis of responses of the 40-64 year-olds to the five rights and entitlements related sets of questions concerning their expectations of them being available. The associations between their responses and the following nine variables are also considered. These are: age, gender, marital/partnership status, living arrangements, urban/rural location, personal income, subjective wellbeing or general satisfaction with life, and loneliness.

## 2. Theoretical Background

An entitlement is a guarantee of access to some thing or benefit based on the existence of a right, or by agreement through law. A person in possession of such a right has an entitlement to receive or experience the benefit associated with it, and a corresponding expectation that they should be able to receive or experience it. In a modern welfare state such as New Zealand, the State has a central role in the protection and provision of rights and entitlements and in managing and mitigating the risk associated with later life (Hudson, 1995; Kemp & Denton, 2003).

The five sources or types of support that are considered in this research are examples of what Sen terms ‘instrumental freedoms’, which are enabling conditions “that contribute, directly or indirectly, to the overall freedom that people have to live the way they would like to live” (Sen, 1999:38). Sen proposes a non-exhaustive list of five types of instrumental freedoms: political freedoms, economic facilities, social opportunities, transparency guarantees, and protective security (*ibid.*). Of these, economic facilities and protective security align most clearly with the five areas of rights and entitlements considered in this chapter.

By framing the issue in terms of ‘rights and entitlements’ (rather than in terms of ‘needs’, for example) human agency, empowerment and autonomy are emphasised rather than the less active connotations that can be associated with being in need (Geiringer & Palmer, 2007; Waldron, 2000:123). This emphasis on agency supports the capabilities based approach to wellbeing that is used in this study.

In a broader relational sense, the question of rights and entitlements presupposes the existence of rights-bearers on the one hand, and on the other hand, those with moral or legal obligations to ensure such rights are protected and entitlements provided (Geiringer & Palmer, 2007:15; Waldron, 2000). In this research the rights-bearers are, ultimately, older people because this midlife component of the study asks middle-aged people about their expectations of such rights being available when they are older and in need of them. The anticipated protectors and providers are assumed to be the family and the state.

## 3. Method

### 3.1 Data

Expectations of the future availability of rights and entitlements were measured by questions asking respondents what they expected to be available to them, if needed, in their old age in terms of five sources of support: financial security, adequate health care, residential care, support from family, and support from the government and government agencies. Responses could be one of ‘Yes’, ‘No’, or ‘Don’t know’.

The ‘Don’t know’ response had a different connotation for this dimension of wellbeing than for other variables (e.g. income, age, gender), and this is reflected in the analysis that follows. ‘Don’t know’ responses to questions about household income, housing costs, or even date of birth, indicate a lack of knowledge about existing conditions and facts. Such responses are not very useful analytically, except to indicate that the respondent does not know something that they might reasonably be expected to know. On the other hand, people not knowing whether they will be financially secure, have access to health care or residential care, or have support from family or the government, conveys important information about their confidence in the adequacy and stability of important social institutions and services.

As this is a survey of middle-aged people, those who have yet to reach old age, the focus of the questions was on respondents’ expectations of these rights and entitlements being available if needed when they became old, rather than on whether respondents were currently accessing them.

Furthermore, the questions did not ask about the importance of each potential set of rights and entitlements to the respondents. Consequently, the data only reveal whether or not respondents expected the selected rights and entitlements to be available if or when they were needed.

The 34 marital/partnership status categories contained in the database were collapsed to five categories: never married or in a relationship, in a relationship, widowed, no longer in a relationship but not widowed, and in a relationship but living apart.

Living arrangements were defined in terms of eight categories of household composition: couple only, couple with other persons, couple with children, couple with children and other persons, one parent with children, one parent with children and other persons, multi-person households of related people, and single person households.

### 3.2 Analysis

The five dimensions of rights and entitlements with respect to their sources of support were examined for their overall frequencies and for bivariate relationships with the variables age, gender, marital/partnership status, household type, personal income, overall subjective wellbeing, loneliness, and participation in leisure and recreation activities. The statistical tests used and their levels of significance are shown as either footnotes or table notes.

All analyses in this chapter use weighted data, with sample weights calculated and applied to adjust for gender and age.

## 4. Results and Findings

### 4.1 Overall Frequencies

Table 6.1 presents the frequencies of responses to the five rights and entitlements, which show that people are much more confident of the abilities of their families to provide them with support than they are of receiving support from the government. The expectation of support from other sources (health care, finance, residential care), sit in between those for the family and those for the government. As Table 6.1 shows, nearly 85 percent of those who responded expect support from their families when they need it. Fewer than seven percent did not know. None of the other forms of support reached 70 percent, with expectations of support from the government being well below 50 percent.

Table 6.1

*Expectations of Support from or Access to various Rights and Entitlements (%)*

|             | Support from family | Access to health care | Financially comfortable | Access to residential care | Support from Government |
|-------------|---------------------|-----------------------|-------------------------|----------------------------|-------------------------|
| Yes         | 84.8                | 63.5                  | 64.9                    | 59.5                       | 40.5                    |
| No          | 8.6                 | 19.4                  | 16.2                    | 14.5                       | 24.7                    |
| Do not know | 6.6                 | 17.2                  | 18.9                    | 26.0                       | 34.9                    |
| N=          | 1,931               | 1,935                 | 1,931                   | 1,920                      | 1,932                   |
| Total       | 100%                | 100%                  | 100%                    | 100%                       | 100%                    |

With respect to the specific forms of rights and entitlements, health care and financial security show an over 60 percent positive response, with support from the government not reaching half (40.5 percent). Health and financial security had similar patterns of negative and don't know responses. Expectations of access to residential care showed a greater degree of uncertainty with 26 percent being uncertain. Less than half of respondents had a clear expectation of support from the government, almost one quarter did not expect it, and more than one third did not know.

To some extent, the responses regarding support from the government are inconsistent with the other entitlements, because the provision of health care and residential care for older people is largely the responsibility of the government and government agencies. Responses to the question about support from the government are therefore best understood as reflecting an underlying scepticism about the constancy and reliability of the State in comparison to, for example, the family. The clear difference between expectations of support from the family and from other sources contrasts with findings of a British qualitative study (Sin, 2006) that found equal expectations of support from the state and family among both white British and Asian-Indian British participants.

#### 4.2 Age

For healthcare,<sup>102</sup> residential care,<sup>103</sup> and support from government,<sup>104</sup> the expectation of the midlife respondents that access would be available in their older years was positively related to respondents' age: those closer in age to being of 'older years' had a higher expectation of obtaining access, as shown in Table 6.2. On the other hand, not knowing whether the support would be available was steady across the age groups. No significant associations were found between midlife respondents' age and their expectations of financial support, or support from the family in their older years.

Table 6.2

*Expecting to Receive Support by Age Group (%)*

| Area of support<br>expected to be<br>received | Age groups |       |       |       |       | Total |
|---|------------|-------|-------|-------|-------|-------|
|   | 40-44      | 45-49 | 50-54 | 55-59 | 60-64 |       |
| Health care                                   | 60.8       | 57.8  | 63.1  | 66.6  | 73.9  | 63.5  |
| Residential care                              | 53.6       | 54.9  | 60.1  | 66.6  | 67.4  | 59.6  |
| Government                                    | 38.1       | 35.6  | 41    | 45    | 45.4  | 40.4  |

In contrast, for the 65 to 84 age group, the expectation of financial support was significantly positively associated with age (King, 2009).

#### 4.3 Gender

Expectations of support were not significantly different for men and women, except for expectation of support from the government<sup>105</sup>, where, as shown in Table 6.3, women were less likely than men to expect support, but were more likely than men to say they did not know. This could indicate a gender difference in knowledge or understanding of some government policies, including those related to financial and social support. Similar results were found for the 65 to 84 age group (King, 2009).

Table 6.3

*Expecting to Receive Support from Government by Gender (%)*

| Expect to receive<br>support from<br>government | Gender |        |       |
|---|--------|--------|-------|
|   | Male   | Female | Total |
| Yes   | 42.3   | 38.7   | 40.5  |
| No  | 26.2   | 23.3   | 24.7  |
| Don't know                                      | 31.5   | 38     | 34.8  |

<sup>102</sup> Chi-square (8) = 29.405,  $p < .001$  Cramer's V = .087,  $p < .001$

<sup>103</sup> Chi-square (8) = 30.879,  $p < .001$  Cramer's V = .090,  $p < .001$

<sup>104</sup> Chi-square (8) = 24.600,  $p < .01$  Cramer's V = .080,  $p < .01$

<sup>105</sup> Chi-square (2) = 8.959,  $p < .05$  Cramer's V = .068,  $p < .05$

#### 4.4 Marital/Partnership Status

Expectations of support for finance,<sup>106</sup> healthcare,<sup>107</sup> residential care<sup>108</sup> and from family<sup>109</sup> were significantly related to marital/partnership status, as shown in Table 6.4, but support from government was not.

Table 6.4

*Expecting to Receive Support by Marital Status (%)*

| Expect the following support | Never married or in a relationship | In a relationship | Widowed and no longer in a relationship | No longer in a relationship but not widowed | In a relationship but living apart | Total |
|------------------------------|------------------------------------|-------------------|---|---|------------------------------------|-------|
| Financial support            | 48.9                               | 70.4              | 56.0                                    | 43.1  | 50.0                               | 64.8  |
| Health care                  | 58.2                               | 65.5              | 60.8                                    | 55.9  | 58.1                               | 63.6  |
| Residential care             | 53.4                               | 62.7              | 51.0                                    | 47.2  | 59.4                               | 59.7  |
| From family                  | 68.1                               | 88.2              | 90.2                                    | 73.3  | 63.6                               | 84.8  |

For each of the four significantly related areas of support, those who were never married or in a relationship, those who were no longer in a relationship but not widowed, and those in a relationship but living apart were less likely to expect the support to be available than those who were in a relationship or widowed. Those respondents' lower expectations of support from family might reflect their lower levels or absence of linkage with family (particularly children and grandchildren) and significant others. These results are the same as those for the 65 to 84 age group (King, 2009).

#### 4.5 Living Arrangements

Expectations of support for finance,<sup>110</sup> healthcare,<sup>111</sup> residential care<sup>112</sup> and from family<sup>113</sup> were significantly related to household composition, but support from government was not. Expectations that support would be available from these four sources were consistently higher for respondents from households containing couples than for those without. Conversely, the expectation that they would not be available are consistently higher for respondents from households headed by single people. Respondents from households with and without couples displayed similar levels of uncertainty about whether these forms of support would be available, except in the case of support from family. In that case, couple households were much less likely to be uncertain than those without couples. Those respondents' lower expectations of support from family might reflect their lower levels or absence of linkage with family (particularly children and grandchildren) and significant others. Overall, the results suggest that those who were living with others were more optimistic about their future with respect to support in their older years than were those who were living alone.

These results were quite different from those for the 65 to 84 age group, for whom living arrangements were significantly associated only with expectations of support from family (King, 2009).

#### 4.6 Rural/Urban Location

Residential location was only significantly associated with the expectation of being financially comfortable.<sup>114</sup> Those living on the outskirts of a city and in rural areas were more likely to expect this than those living in urban areas and small towns. This finding contrasts with that for the 65 to 84

<sup>106</sup> Chi-square (8) = 118.457,  $p < .001$  Cramer's V = .176,  $p < .001$

<sup>107</sup> Chi-square (8) = 16.746,  $p < .05$  Cramer's V = .066,  $p < .05$

<sup>108</sup> Chi-square (8) = 39.890,  $p < .001$  Cramer's V = .102,  $p < .001$

<sup>109</sup> Chi-square (8) = 114.318,  $p < .001$  Cramer's V = .173,  $p < .001$

<sup>110</sup> Chi-square (14) = 123.033,  $p < .001$  Cramer's V = .179,  $p < .001$

<sup>111</sup> Chi-square (14) = 33.724,  $p < .01$  Cramer's V = .093,  $p < .01$

<sup>112</sup> Chi-square (14) = 56.807,  $p < .001$  Cramer's V = .122,  $p < .001$

<sup>113</sup> Chi-square (14) = 82.086,  $p < .001$  Cramer's V = .146,  $p < .001$

<sup>114</sup> Chi-square (6) = 19.003,  $p < .01$ . Cramer's V = .070,  $p < .01$ .



age group, for whom residential location was not significantly associated with expectation of any type of support (King, 2009).

#### 4.7 *Personal Income from All Sources*

Personal income was significantly related to the expectation of being financially comfortable<sup>115</sup> and the expectation of healthcare.<sup>116</sup> No significant relationships were found between level of personal income and the expectation of support from any of the other sources. Not surprisingly, income level was clearly positively associated with respondents' expectations that they would be financially comfortable, and negatively associated with their either not thinking it would be available, or not knowing. The relationship between income and expectation of healthcare being available was generally positive, but the degree of uncertainty was relatively steady across the income categories. For the 65 to 84 age group personal income was similarly associated with the expectation of being financially comfortable, but not with the expectation that healthcare would be available (King, 2009). It is possible that the positive relationship between income and the expectation of healthcare for the midlife group was associated with the increased affordability of private health insurance for those on higher incomes.

#### 4.8 *Subjective Wellbeing or General Satisfaction with Life*

Respondents' general satisfaction with life was measured on a five point scale ranging from 'very satisfied' to 'very dissatisfied'. General satisfaction with life was significantly and positively related to the expectation that support would be available from each of the five areas of support.<sup>117</sup>

General satisfaction was also measured across each of the ten dimensions of wellbeing covered in this study. For each dimension, respondents were asked whether they were either satisfied or dissatisfied with it in the context of their lives. The respondents' satisfaction with their rights and entitlements for each of the five sources of support was positively associated with their expectation of support from each source.<sup>118</sup> Respondents' satisfaction with their rights and entitlements was also positively associated with their subjective wellbeing or general satisfaction with life.<sup>119</sup>

The same results were found for the 65 to 84 age group, except that their expectation of support from government was not significantly associated with their general satisfaction with life (King 2009).

#### 4.9 *Loneliness*

Loneliness has been linked to poor social integration (Mullins, Shepphard & Andersson 1988; Wenger, et al., 1996; de Jong Gierveld & van Tilburg, 1999) and is recognised as a dimension of social exclusion (Scharf & Smith, 2004). Loneliness was measured using the De Jong Gierveld Loneliness Scale (de Jong Gierveld & van Tilburg, 2006). This measures overall loneliness on a seven point scale, with two subscales that measure emotional loneliness and social loneliness respectively. Higher scale numbers indicate higher levels of loneliness. "Emotional loneliness is the lack of a specific, intimate relationship, while social loneliness is a lack of social integration and embeddedness." (van Tilburg, Havens & de Jong Gierveld, 2004:170).

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<sup>115</sup>Chi-square (8) = 44.926,  $p < .001$  Cramer's V = .123,  $p < .001$

<sup>116</sup>Chi-square (8) = 24.919,  $p < .01$  Cramer's V = .092,  $p < .01$

<sup>117</sup>Finance: Chi-square (8) = 177.411,  $p < .001$  Cramer's V = .214,  $p < .001$ ; Health care: Chi-square (8) = 58.688,  $p < .001$  Cramer's V = .123,  $p < .001$ ; Residential care: Chi-square (8) = 54.460,  $p = .001$  Cramer's V = .119,  $p = .001$ ; Family support: Chi-square (8) = 90.167,  $p < .001$  Cramer's V = .153,  $p < .001$ ; Government support: Chi-square (8) = 20.396,  $p < .01$  Cramer's V = .073,  $p < .01$ .

<sup>118</sup> Finance: Chi-square (2) = 98.498,  $p < .001$  Cramer's V = .234,  $p < .001$ ; health care: Chi-square (2) = 93.949,  $p < .001$  Cramer's V = .229,  $p < .001$ ; residential: Chi-square (2) = 49.958,  $p < .001$  Cramer's V = .167,  $p < .001$ ; family: Chi-square (2) = 30.792,  $p < .001$  Cramer's V = .131,  $p < .001$ ; government: Chi-square (2) = 103.205,  $p < .001$  Cramer's V = .240,  $p < .001$ .

<sup>119</sup> Chi-square (4) = 152.018,  $p < .001$  Cramer's V = .289,  $p < .001$

Overall loneliness, emotional loneliness and social loneliness were all significantly related inversely to each of the five areas of support, with one exception.<sup>120</sup> There was no significant relationship between emotional loneliness and the expectation of support from the government. Conversely, the expectation that support would not be available was positively related to loneliness in all cases, except for emotional loneliness and the expectation of support from the government. The same positive relationship was found for uncertainty about whether support would be available or not.

Table 6.5 shows the strengths of association between each area of support and each type of loneliness, using the Cramer's V measure of association for categorical variables. In each case, the strength of association is greater for social loneliness than for emotional loneliness (although the value for government support and emotional loneliness is not significant, as already indicated). Thus, the lonelier a person was the less likely they were to expect a particular right or entitlement to be available, with social loneliness having a greater strength of association than emotional loneliness.

These results for the midlife sample follow the same pattern as those for the 65 to 84 age group (King, 2009).

Table 6.5

*Strengths of Association between Expecting particular Rights and Entitlements to be available and Loneliness Type.*

| Area of support  | Cramer's V measure of strength of association by area of support and type of loneliness |        |         |
|------------------|---|--------|---------|
|                  | Emotional   | Social | Overall |
| Finance          | 0.129   | 0.143  | 0.169   |
| Health           | 0.064   | 0.147  | 0.151   |
| Residential care | 0.068   | 0.163  | 0.150   |
| Family           | 0.094   | 0.235  | 0.210   |
| Government       | 0.026   | 0.062  | 0.079   |

## 5. Conclusion

This analysis of the expectations of the availability of certain rights and entitlements of New Zealand residents aged 40 to 64 has found that they mostly expect support to be available from their family (nearly 85 percent). This was followed by the expectation of having access to healthcare (63.5 percent), being financially comfortable (64.9 percent), and having access to residential care (59.5 percent). The expectation of having support from the government was by far the lowest (40.5 percent). The lower expectations of support from the government than other forms of government-supported entitlements, such as healthcare and residential care, appear contradictory. However, this might reflect a generalised lack of confidence in 'the government' in a general sense (in contrast to the family), that coexists with a greater confidence in particular instances of government service provision. It might also be the case that some people have confidence in their own ability to provide

<sup>120</sup> Overall loneliness: Finance: Chi-square (12) = 110.139,  $p < .001$  Cramer's V = .169,  $p < .001$ ; healthcare: Chi-square (12) = 88.099,  $p < .001$  Cramer's V = .151,  $p < .001$ ; residential: Chi-square (12) = 86.405,  $p < .001$  Cramer's V = .150,  $p < .001$ ; family: Chi-square (12) = 170.264,  $p < .001$  Cramer's V = .210,  $p < .001$ ; government: Chi-square (12) = 23.759,  $p < .05$  Cramer's V = .079,  $p < .05$ .

Emotional loneliness: Finance: Chi-square (6) = 63.434,  $p < .001$  Cramer's V = .129,  $p < .001$ ; health care: Chi-square (6) = 15.477,  $p < .05$  Cramer's V = .064,  $p < .05$ ; residential: Chi-square (6) = 17.388,  $p < .01$  Cramer's V = .068,  $p < .05$ ; family: Chi-square (6) = 33.640,  $p < .001$  Cramer's V = .094,  $p < .001$ .

Social loneliness: Finance: Chi-square (6) = 78.302,  $p < .001$  Cramer's V = .143,  $p < .001$ ; health care: Chi-square (6) = 82.549,  $p < .001$  Cramer's V = .147,  $p < .001$ ; residential: Chi-square (6) = 101.174,  $p < .001$  Cramer's V = .163,  $p < .001$ ; family: Chi-square (6) = 210.381,  $p < .001$  Cramer's V = .235,  $p < .001$ ; government: Chi-square (6) = 14.628,  $p < .05$  Cramer's V = .062,  $p < .05$ .

for those types of support themselves, through health insurance, for example, without being entirely dependent on the government to provide them.

Older age, within the midlife cohort, was significantly related to expectations of the availability of access to all types of support (healthcare, residential care, and support from the government), except financial support and support from the family. The higher expectations among those in the older age groups might well reflect their being closer to being in the position of needing to access it and more confident of it being available in the not too distant future. The greater uncertainty of younger midlife people might reflect uncertainty about a more distant future, or the present debate about the sustainability of services provided mainly by the government. Except for the lack of significant relationship with an expectation of financial support, these results are the same as those for the 65 to 84 age group.

Expectations of support were not significantly different for men and women, except women were less likely than men to expect support to be available from the government, but also more likely than men to say that they did not know. The same relationships were found for the 65 to 84 age group.

Those who were never married or in a relationship, those who were no longer in a relationship but not widowed, and those in a relationship but living apart were less likely than those who were in a relationship or widowed to expect to be financially secure, have access to healthcare, residential care, and support from family. The same results were found for the 65 to 84 age group. These findings suggests that being in a relationship is a protective factor that contributes to wellbeing, and that this protective factor continues when a relationship has ended due to the death of one of the partners, but not when it has ended due to a separation or divorce. In the case of widow(er)hood, the end of a relationship is not accompanied by the division of wealth and assets as in the case of separation or divorce, and might even result in a consolidation of wealth and assets for the surviving partner. The ending of a relationship through the death of a partner rather than separation is also less likely to damage or end other relationships, such as those with children and other family members and friends.

With respect to living arrangements, perceptions of the availability of support in their older years from all sources, except from the government, were higher for those living in households containing couples than those in households containing no couples. In other words, those who were living with others were more optimistic about their future with respect to support in their older years than were those who were living alone. This result differed from that for the 65 to 84 age group, for whom living arrangements were significantly associated only with expectation of support from family.

Residential location was significantly associated with the expectation of being financially comfortable, with those living on the outskirts of a city and in rural areas being more likely to expect this than those living in urban areas and small towns. For the 65 to 84 age group, residential location was not significantly associated with an expectation of support from any source.

Personal income level was positively associated with respondents' expectations of being financially comfortable and their expectation that healthcare would be available. It was not significantly associated with any of the other sources of support (residential care, or support from the family or government). The positive relationship between income and the expectation of healthcare for the midlife group might have been due to those with higher incomes either having or being able to afford private health insurance. For the 65 to 84 age group, personal income level was similarly significantly associated with the expectation of being financially comfortable, but not with healthcare or any other type of support.

General satisfaction with life, or subjective wellbeing, was significantly and positively related to the expectation that support would be available from all sources, and also with respondents' satisfaction with their rights and entitlements. This was similar to the 65 to 84 age group, except that the expectation of the older group of support from government was not significantly associated with their general satisfaction with life.

Emotional loneliness, social loneliness and overall loneliness were inversely related to the expectation of support from all sources, except that there was no significant difference between the level of emotional loneliness and the expectation of support from the government. The strength of the associations between each type of support and social loneliness was greater than their associations with emotional loneliness. Thus, the lonelier a person was the less likely they were to expect a particular right or entitlement to be available, with social loneliness contributing more to this than emotional loneliness. The same result was found for the 65 to 84 age group.

Overall, lower expectation of entitlement availability is associated with lower assessment of midlife people's subjective wellbeing and a lower general satisfaction with life, along with the extent of the participants' connections to other people through marriage or partnership status, living arrangements and degree of loneliness. The finding that the socially lonely are more likely than the emotionally lonely not to expect, or not to know whether to expect, these rights and entitlements to be available has significance for the social integration, inclusion and exclusion of people in their midlife and older years, and the development of policies and practices to enhance this.

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# **Chapter 7: Leisure and Recreation Activities and Wellbeing among Midlife New Zealanders**

Suzan van der Pas and Peggy Koopman-Boyden

## **1. Introduction**

Leisure and recreation activities are ways of providing people with pleasure and self expression (Donald & Havighurst, 1959). Such activities are also an avenue of personal growth, and, in the last few decades, have been recognised as part of human development, where the leisure and recreation activities of one's younger years can lay the foundation for developments in later years, such as leadership roles, community integration and self-identity (Atchley, 1999).

Active participation in leisure and recreation activities has increasingly been recognised as a factor that protects against a number of physical impairments and medical conditions associated with old age (Rowe & Kahn, 1997; Schnor, Scharling & Jensen, 2003). In addition, studies suggest that middle-aged adults today have had different opportunities and resources earlier in life from previous cohorts, and this will affect their habits and behaviour in old age (Biggs et al, 2007). Recent social changes have resulted in a greater variety of readily accessible cultural and leisure activities, which have also affected people's leisure pursuits. (Agahi & Parker, 2005; Verbrugge, Gruber-Baldini & Fozard, 1996).

This implies that, apart from the effects of ageing on people's ability to engage in leisure activities (Strain et al., 2002), age cohorts may have different participation rates (Broese van Groenou, 2006; Lalive d'Epinay, Maystre & Bickel, 2001), and social changes may influence the whole population in a similar way (Verbrugge et al., 1996). Although it is difficult to disentangle the effects of age, period and cohort, it is important to take these different factors into consideration when interpreting the outcomes of leisure studies.

In a review of leisure participation in New Zealand over the 20<sup>th</sup> Century, Walker, Donn and Laidler (2005) concluded that New Zealanders have a relatively high level of participation in both sport and cultural activities. Sport, in particular, has been seen as central to New Zealand's culture and it is invested with values critical to building character (Stothart, 1974). Other more sedate or indoor activities have been viewed as building family values.

In the last decade the connection between leisure participation and wellbeing in New Zealand has begun to be established through successive editions of the Ministry of Social Development's Social Reports (for example, Ministry of Social Development, 2008). Using both objective and subjective indicators, the Ministry of Social Development has measured the extent to which "everybody is satisfied with their participation in leisure and recreation activities. They have sufficient time to do what they want to do and can access an adequate range of opportunities for leisure and recreation." (Ministry of Social Development, 2008:86). Participation in either physical or cultural and arts activities is identified by the Ministry as contributing to people's quality of life.

Although there are a number of studies of participation in leisure and recreation activities in New Zealand (see section 2.2 below), very little has been documented about the extent to which these activities influence the wellbeing of middle-aged people and how this compares with older people.

This chapter describes the level of involvement of middle-age people in leisure and recreation activities, identifies the association of participation in leisure and recreation with a number of socio-demographic and personal characteristics, and examines the extent to which these activities influence the wellbeing of middle-aged people. The chapter also compares the leisure and recreation activities

of middle-aged people with older people (65-84 year-olds, as reported in van der Pas & Koopman-Boyden, 2009).

## **2. The Theoretical and Empirical Background and Social Context of Leisure and Recreation Activities**

The idea that higher levels of leisure and recreation activity can be linked to higher physical function, and may in turn lead to higher physical function later in life would seem a clear way of ‘enhancing wellbeing in an ageing society’, especially among the current 40-64 year age-group. Moreover, studies suggest that both previous participation and current health influence current participation in leisure and recreation activity (Strain et al., 2002; Agahi, Ahacic & Parker, 2006). This section considers these connections and also the social context of leisure and recreation activities in New Zealand.

### *2.1 Theoretical and Empirical Background*

Early gerontology researchers maintained that activity was positively related to the wellbeing of older people (Havighurst, Neugarten & Tobin, 1964), and one of the founding theories of ageing was built on this idea. Entitled ‘activity theory’, successful ageing was seen as benefiting from continued or enhanced physical and mental activity in older years. Continuity theory has a similar approach (Atchley, 1989). According to this theory, individuals maintain continuity and consistency in patterns of thought, activities and habits, despite changes which may take place in health and social conditions (Atchley, 1999). In contrast to activity theory, continuity theory does not maintain that continuity over time necessarily leads to outcomes such as wellbeing; people who do not display continuous patterns of activity may still have a high level of wellbeing and vice versa (Atchley, 1999).

Many studies have demonstrated the link between higher levels of physical fitness and activity and high physical function (see Rowe & Khan, 1997, for a review). The relationship between activity and health is not a simple one, as the causality probably works both ways. However, such studies have often been conducted among older people, and have investigated ways of maintaining a high level of physical fitness among the older age group, or reduce the risk of low physical function. They have also investigated the health and wellbeing benefits arising from maintaining a high level of physical fitness (Keysor, 2003).

More recently, several studies of middle-aged people have examined physical activity performed earlier in life in relation to mobility later in life. A major finding comes from an Italian study in 1998-2000 of 1,155 adults aged 65+, where “older adults who reported higher levels of physical activity in middle-age had better mobility in old age than less physically active ones”. This relationship remained after adjusting for demographic factors, medical conditions and physiological impairments (Patel et al., 2006: 217).

Other research has adopted a longer time frame in investigating this relationship. The Whitehall II study included all London-based office workers aged 35 to 55 working in 20 civil service departments (N=10,308) and questioned them repeatedly between 1985 and 2001 for an average of 8.8 years as to their physical activity and physical function. The clear finding was that “participation in a physically active lifestyle during midlife appears to be critical to the maintenance of high physical function in those who are fit and well enough to work and do so, or those who do not report any long-standing illness” (Hillsdon et al., 2005: 245).

A similar finding emerged from a study of metal industry employees in Finland in 1973, where vigorous leisure time physical activity decreased the risk of poor physical functioning 28 years later (2001), although ‘high work strenuousness’ increased it (Leino-Arjas et al, 2004).

In another longitudinal study investigating age-related changes in leisure participation over a period of 34 years, previous participation, both 10 and 34 years earlier, was found to predict late-life

participation (Agahi et al., 2006). The results from this study and a number of earlier studies on age-related changes in leisure participation (Strain et al, 2002; Verbrugge et al., 1996) suggest that leisure participation in old age is often a continuation of participation earlier in life.

There is sound research evidence for suggesting that leisure and recreational activities undertaken in middle-age will better prepare participants for their older years. The research project *Enhancing Wellbeing in an Ageing Society* implicitly encompasses the more general idea that behaviours which occur in younger age-groups may later enhance the wellbeing of that same age group when they, in the case of the middle-aged, grow into old age (e.g. in the building of social capital through social contacts).

## 2.2 *New Zealand Research on Leisure and Recreation*

New Zealand research on leisure and recreation has predominantly consisted of large quantitative surveys investigating the type and frequency of the activities of participants. One of the most recent of these surveys is the Active New Zealand Survey of 2007, providing information on the physical leisure participation of 4,443 New Zealand adults aged 16+ years (Sport and Recreation New Zealand, 2008). For comparison with the age-groups closest to the 40-64 year-olds which are studied in this chapter, the ten most popular sport and recreation activities of New Zealanders aged 35-49 years and 50-64 years in 2007/08 were walking (64.8% and 72.5%), gardening (45.1% and 55.0%), swimming (40.9% and 24.4%), cycling (32.0% and 19.9%), equipment-based exercise (27.3% and 24.4%), fishing (24.9% and 18.8%), jogging/running (18.7%; not in the top ten for the 50-64 year-olds), dance (16.6% and 12.3%), golf (12.2% and 14.0%), tramping (10.7% and 10.5%); with pilates/yoga being in the top ten for the 50-64 year-olds at 7.3% (ibid:8). With the exception of jogging/running and pilates/yoga the two age groups had the same 'top ten' in sport and recreation.

A further nation-wide survey, the 2002 Cultural Experiences Survey (Statistics New Zealand, 2002), included some interesting insights into more cultural leisure activities. The study found that the most popular cultural activities of New Zealanders in the previous four weeks (given a set of choices) were purchasing books (44%) and visiting a public library (39%). In all cases, those respondents with secondary or tertiary qualifications were far more likely than those without such qualifications to undertake each of these activities, and women were more likely to do so than men (Statistics New Zealand, 2003: 9).

The study also found that the most popular cultural activities that people participated in over the previous twelve months were visiting art galleries/museum (48%), attending live performance of popular music (37%), purchasing handmade craft (31%), attending theatre (27%) and visiting historic places (27%). Participation in most cultural activities tended to be more common among people with higher educational qualifications, in the labour force, earning middle to high incomes, among women, and among those who lived in larger urban areas (Statistics New Zealand, 2003:10).

The Midlife Family Transactions Project, with a random sample of 750 New Zealanders aged 40-54 years interviewed in 1997, noted that the majority of people in midlife participated in a diverse range of leisure activities and were satisfied with the amount of their leisure time (Koopman-Boyden et al., 2000; Thompson, Grant & Dharmalingam, 2002). Over 80% of the respondents indicated that they spent leisure time with their family, with women being more likely than the men to participate in their most favourite activity at home, and men being able to find larger blocks of time for their leisure than women (Grant & Thompson, 2000:129). The research also found that the family's influence on leisure participation patterns was both "historical and continuing", in that "partners were crucially important for influencing the take-up of leisure pursuits, [while] spouses/partners and children were influential in encouraging the continuation of these pursuits" (Koopman-Boyden, 2000:137).

## 2.3 *Social Context and Trends in Leisure and Recreation in New Zealand*

The surveys on leisure, recreation, culture and time-use suggest a number of characteristics, trends and influences on New Zealand leisure and recreation activities.



Firstly, participation in sport or in the arts is not mutually exclusive: many people participate in both. Also, the level of participation is relatively high across the different age-groups, and across the ‘broad divide’ of sport and arts/culture, where the latter has often been seen as not so popular (Walker, Donn & Laidler, 2005). Funding increases to the arts over the last decade have given people greater access to an array of more cultural activities, ranging from kapa haka festivals to symphony orchestras and wearable arts shows. The survey findings show higher participation trends among the younger age-groups, while the 1997 Arts Every Day survey also showed that education is a better indicator of an interest in the arts than income (Creative New Zealand, 1999).

Secondly, the importance of the family and the home (as opposed to the community) as a base for leisure activities is shown clearly in many of the surveys. Activities such as gardening, reading, watching or listening to the media, craftwork, social occasions and family events are usually home based. For many Māori, the marae and whanau are the centre of much of their leisure activity, while for many Pacific peoples it is the church and community venues.

Thirdly, diversity in activities by ethnicity is emerging in some of the surveys,<sup>121</sup> where the top five Māori sports and arts activities included karakia, waiata, te reo, kapa haka and poi, while the top five Pacific Island arts activities were choir/group singing, dance, storytelling, performance, chants (Creative New Zealand, 1999; Walker, Donn & Laidler, 2005). In reporting these findings, Walker et al. comment that “the fact that these activities are part of both cultural and active lifestyles, is a reminder of the need to examine arts and sports participation from a more holistic perspective” (p184).

Along with these characteristics and trends, there are other wider influences on the participation of New Zealanders in leisure and recreation. Such influences may not only affect the middle-aged in their current choice and participation of leisure activities, but also continue to influence their participation in their older years. For example, middle-aged people have been exposed to a variety of leisure and recreation activities in their schooling and in the community, as well as through their family and friends. Such influences can be expected to continue into their older years.

In today’s world of competing time pressures, leisure activities tend also to become one of many demands on discretionary time, and the quest for ‘value for time’ is becoming as important as ‘value for money’. Along with the move from a collective to a more individualistic outlook on life, people are choosing to involve themselves more in individualistic leisure activities, where their leisure pursuits are more in line with their personal needs and financial resources (Walker, Donn & Laidler, 2005). As a result, leisure time is no longer simply a ‘respite from work’, but is now more often part of a chosen lifestyle, where time is more carefully allocated. Furthermore, leisure time may become a lesser priority in middle-age when an increasing amount of time is spent juggling multiple roles and achieving a balance of work and family. It is within this social context that the current middle-aged New Zealanders are involved in leisure pursuits, which they may or may not continue into their older years.

### **3. Data and Method**

The data were collected as part of the *Enhancing Wellbeing in an Ageing Society* research programme. The sample included 1,958 New Zealand respondents (48.9% men and 51.1% women) aged between 40-64 years, who were interviewed using computer assisted telephone interviewing (see Chapter One for further details).

#### *3.1 Leisure Activities*

Participation in leisure activities was measured by asking respondents whether they participated in nine different activities in the month before the interview, with a response of either ‘No’ or ‘Yes’. The

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<sup>121</sup> 1996/1998 Sport and Physical Activity Survey (Hilary Commission, 1999); 1997 Arts Every Day Survey (Creative New Zealand, 1999), quoted in Walker, et al, 2005:182.

specified leisure activities were: being a spectator at a sports event; going to an entertainment or arts event (such as concert, theatre, museum or cinema); going to a restaurant or café; going to the pub or bar; going to a TAB (betting shop, particularly for horse racing and other sports) or casino; attending a family event; attending a social occasion (such as a barbeque); going to the library; and participating in an outdoor activity (such as cycling, walking or gardening).

### 3.2 *Wellbeing*

A subjective measure of satisfaction with leisure and recreation activities was obtained through the dichotomous response (satisfied/dissatisfied) to a question of whether the respondent was satisfied with their participation in leisure and recreation activities. This was similar to the other dimensions of wellbeing in this study. The overall wellbeing of the respondents was measured according to the Wellbeing Scale of the World Values Survey by asking: “How satisfied are you with your life as a whole these days?” The response categories ranged from 1 ‘very dissatisfied’ to 5 ‘very satisfied’. The average level of overall wellbeing was 4.1 (SD = .86).

### 3.3 *Other Measures*

To measure the socio-demographic and personal characteristics, age, gender, education level, income, living arrangements, and health were examined. Four age categories were distinguished: 40 to 44 years, 45 to 49, 50 to 54, 55 to 59 and 60 to 64. Respondents were asked their highest completed educational qualification. The responses were recoded into four categories: up to primary education, secondary education, vocational or trade qualification, and university qualification (for further explanation see the chapter on Education). Income level was based on the ‘total personal income before tax’ (in income bands) and was divided into five categories: up to \$15,000, \$15,001-20,000, \$20,001-30,000, \$30,001-40,000, and \$40,000 or more. ‘Living arrangements’ was a composite variable of partner status and household composition. Within this variable five categories were distinguished, namely: (1) respondents living with their partner (or spouse) and others; respondents living alone (in a one-person household); (2) never married; (3) divorced or separated, (4) widowed; and (5) living with others, related and/or unrelated (without a partner). Health was measured by asking respondents to assess, on a five point scale, their own health status (see this chapter’s Appendix for an explanation of the SF-12 Health Survey scale). In this chapter three categories of self-rated health were distinguished: ‘poor/fair’, ‘good’, and ‘very good/excellent’.

### 3.4 *Procedure*

In the descriptive analyses, bivariate associations were investigated between gender, age, education and income levels, living arrangements and health on the one hand, and participation in leisure and recreation activities on the other. The analyses of participation in leisure and recreation activities were based on a summary measure of the number of activities (out of nine) that respondents participated in during the last month. The analyses included frequency distributions, where the differences between categorical variables were examined using chi-square tests. The analyses are presented separately for each gender, because leisure and recreation activities may be different for men and women. The association between the socio-demographic variables and the participation rate in leisure and recreation activities was examined through an analysis of variance. Lastly, bivariate associations were investigated between participation in leisure activities, satisfaction with participation, and overall wellbeing. The data has been weighted to make the results representative of the New Zealand population aged 40 to 64 (as noted in Chapter 1).

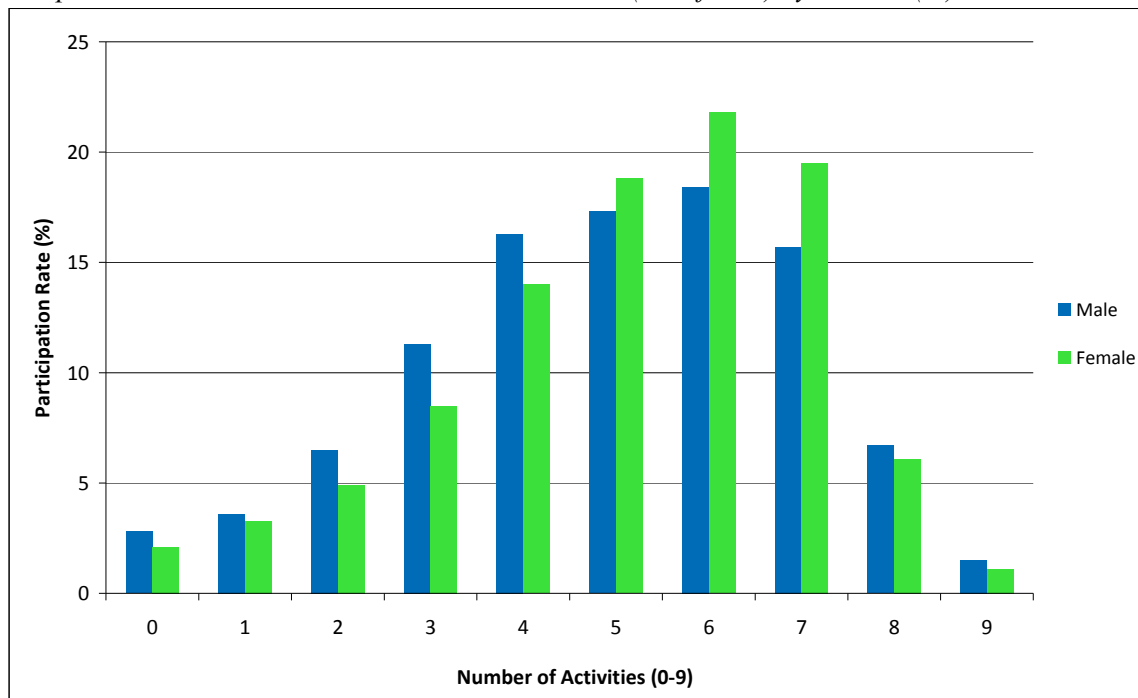
## 4. **Results**

### 4.1 *Participation in Leisure and Recreation Activities*

The average number of different leisure and recreation activities that 40-64 year-old adults participated in during the past month was 5.0 (SD = 2.0) (see Figure 7.1). 3% of the respondents did not participate in any leisure or recreation activity at all, and another 3% participated in only one activity.

Figure 7.1

*Participation Rate in Leisure and Recreation Activities (out of nine) by Gender (%)*



Details of the different types of recreation and leisure activities in which respondents were involved are provided in Table 7.1. Almost 90 percent of the middle-aged respondents participated in outdoor activities, the most popular category, indicating the popularity of walking, gardening, and cycling in New Zealand (see also Sport and Recreation New Zealand, 2008:8). Going to a restaurant/café or attending a family event or social occasion also ranked highly, but fewer people of this age-group gambled, watched a sports event or went to the pub or a bar.

Women were slightly more involved in leisure and recreation activities than men (Mean = 5.1 and 4.9 respectively,  $t_{(1956)} = -2.8$ ,  $p < .01$ ), presumably a result of the lesser involvement of women than men in paid employment at this age (see Figure 7.1). Women were more likely to go to an entertainment/arts event, attend a family or social event, go to a restaurant/ café, or visit a library (Table 7.1). Men were more likely to go to a pub or bar, a sporting event, or the TAB or casino.

Table 7.1

*Participation in Different Types of Leisure and Recreation Activities by Gender (%)*

|                          | Males <sup>122</sup> | Females |     |
|--------------------------|----------------------|---------|-----|
| Outdoor activity         | 87.4                 | 89.7    |     |
| Restaurant/cafe          | 78.8                 | 85.4    | *** |
| Social occasion          | 65.7                 | 72.8    | *** |
| Family event             | 63.7                 | 72.5    | *** |
| Pub/bar                  | 52.0                 | 41.5    | *** |
| Entertainment/arts event | 50.1                 | 56.0    | **  |
| Spectator sports event   | 43.0                 | 34.3    | *** |
| Library                  | 39.0                 | 54.9    | *** |
| TAB/casino               | 10.2                 | 8.0     |     |

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

<sup>122</sup>Male respondents who participated in leisure or recreation activity, as a % of total male respondents answering each question.

Figure 7.2 shows to what extent the number of activities differs between age categories,<sup>123</sup> with the mean participation rate decreasing from the youngest 5 year age-group to the oldest 5 year age-group (from 5.3 for the 40-44 year-olds to 4.7 for the 60-64 year-olds).

Figure 7.2

*Participation Rate in Leisure and Recreation Activities (out of nine) by Age (%)*

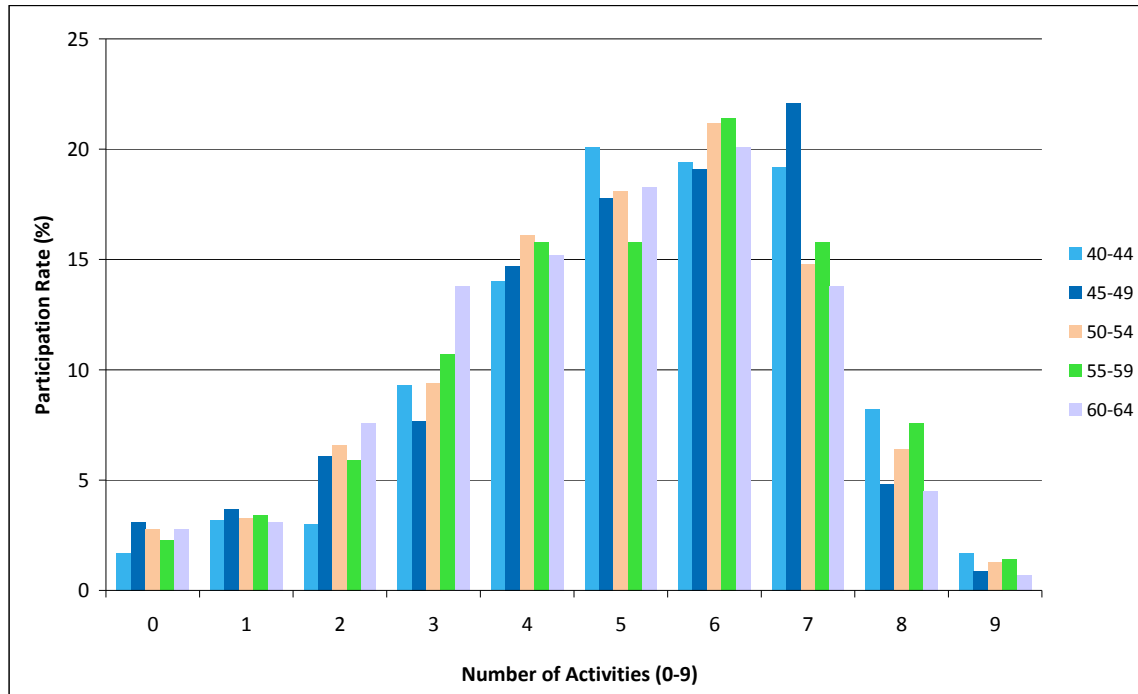


Table 7.2 shows that there were no significant age differences in the types of leisure and recreation activities, with the exception of a clear trend for the younger age-groups to be more likely to attend sports events and the pub/bar than the older age-groups.

Table 7.2

*Participation in Different Types of Leisure and Recreation Activities by Age (%)*

|                          | 40-44 <sup>124</sup> | 45-49 | 50-54 | 55-59 | 60-64 |     |
|--------------------------|----------------------|-------|-------|-------|-------|-----|
| Outdoor activity         | 89.6                 | 86.8  | 88.1  | 90.4  | 88.5  |     |
| Entertainment/arts event | 53.1                 | 56.9  | 53.0  | 52.8  | 47.4  |     |
| Restaurant/café          | 83.8                 | 80.0  | 82.0  | 85.0  | 79.6  |     |
| Social occasion          | 72.3                 | 71.4  | 67.8  | 68.4  | 64.4  |     |
| Family event             | 70.4                 | 66.2  | 64.7  | 70.5  | 69.8  |     |
| Library                  | 52.7                 | 43.7  | 46.7  | 45.2  | 46.5  |     |
| Pub/bar                  | 51.2                 | 49.5  | 45.2  | 44.5  | 39.6  | *   |
| Spectator sports event   | 46.2                 | 40.7  | 36.5  | 35.3  | 30.2  | *** |
| TAB/casino               | 9.9                  | 7.0   | 9.1   | 11.6  | 7.6   |     |

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

#### 4.2 Determinants of Participation in Leisure and Recreation Activities

The influence of socio-economic and personal resources on the participation in leisure and recreation activities was tested through examining the education and income levels, living arrangements, and health of the respondents.

<sup>123</sup>40-44 years:  $M = 5.3$ , 45-49 years:  $M = 5.0$ , 50-54 years:  $M = 4.9$ , 55-59 years:  $M = 5.0$ , 60-64 years:  $M = 4.7$ ,  $F_{(1952,4)} = 3.6$ ,  $p < .01$

<sup>124</sup>Respondents who participated a leisure or recreational activity, as a % of all respondents year-olds.

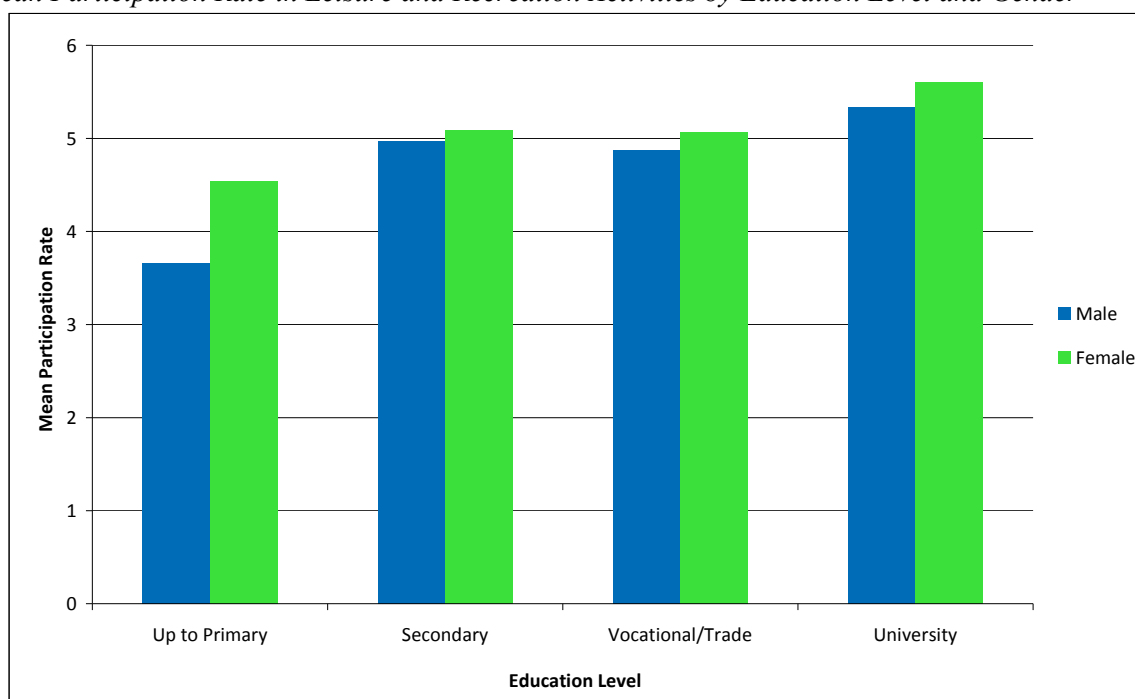
#### 4.2.1 Education Level

Respondents with higher levels of education were active in more categories of activity than those with lower education levels (see Figure 7.3).<sup>125</sup> This finding aligns with the very clear relationship found between higher education and participation in various cultural activities in the 2002 Cultural Experiences Survey (Statistics New Zealand, 2003:9-10). Women in all education categories participated in more leisure and recreation activities than men.<sup>126</sup>

More highly educated respondents participated more in entertainment/arts activities, going to the library, going to a restaurant/café, attending a family or social occasion, outdoor activities or being a spectator at a sports event, than lower educated respondents (results not shown). Going to the TAB or casino was an activity more often taken part in by lower educated respondents than higher educated respondents.

Figure 7.3

*Mean Participation Rate in Leisure and Recreation Activities by Education Level and Gender*



#### 4.2.2 Personal Income Level

The average participation rate in leisure and recreation activities was higher for respondents who had a higher personal income (see Figure 7.4).<sup>127</sup> As income rose, the gap between male and female participation lessened.

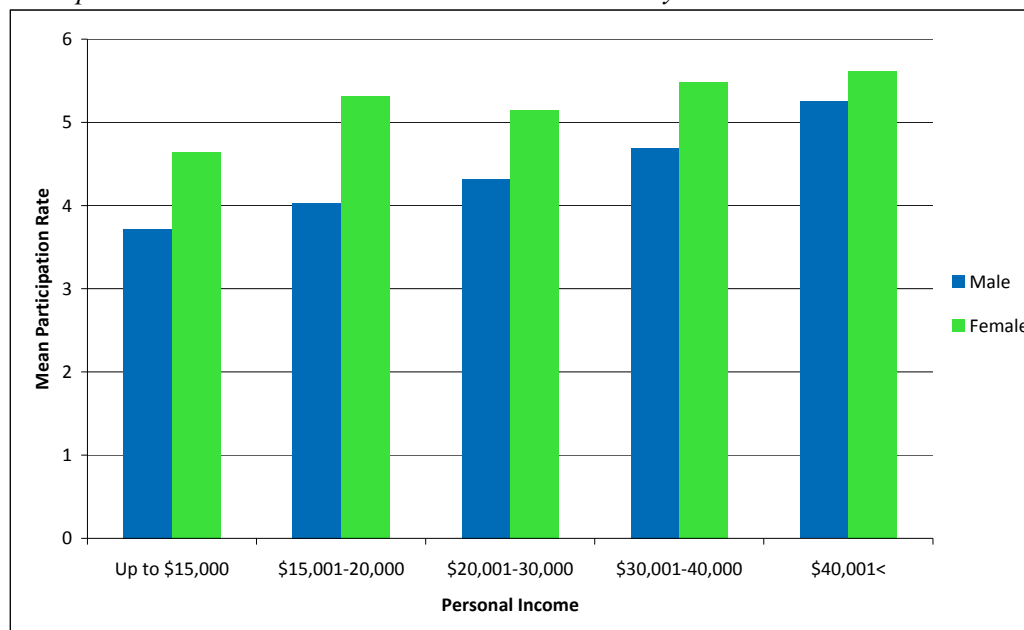
Respondents with higher incomes participated more in entertainment/arts activities, being a spectator at a sports event or participating in outdoor activities, and also visiting a restaurant/café, pub/bar, or attending a family or social occasion (results not shown).

<sup>125</sup>  $F_{(1894,3)} = 21.3, p < .001$

<sup>126</sup>  $F_{(2019,7)} = 11.6, p < .001$

<sup>127</sup>  $F_{(1571,9)} = 11.8, p < .001$

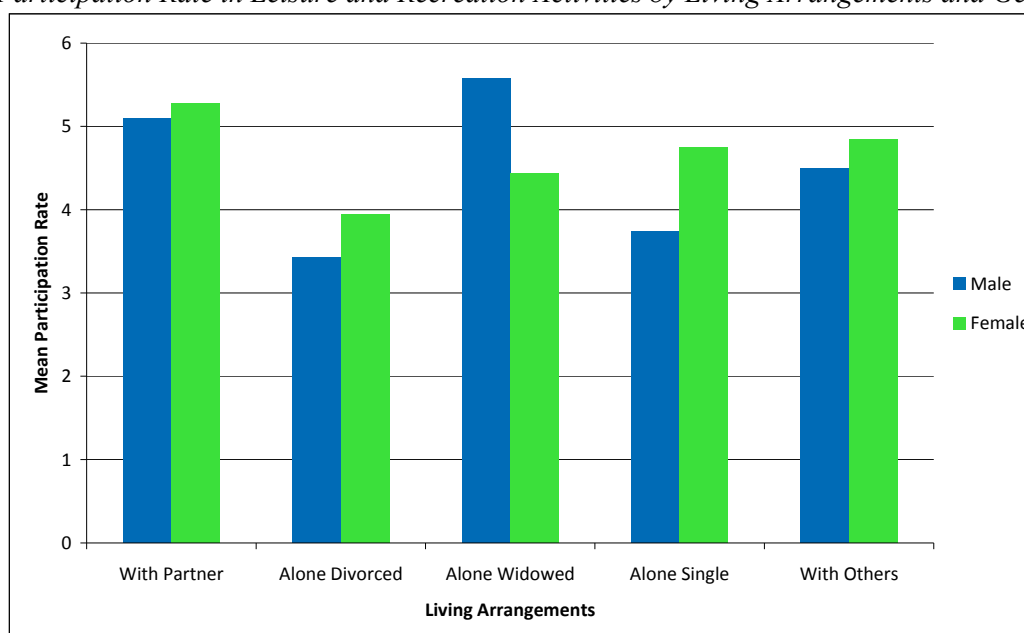
Figure 7.4  
*Mean Participation Rate in Leisure and Recreation Activities by Personal Income and Gender*



#### 4.2.3 Living Arrangements

Consistent differences according to living arrangements were found in the participation of middle-aged respondents in leisure and recreation activities.<sup>128</sup> Both men and women who lived with a partner had the highest average participation rates in leisure and recreation, compared with those in other living arrangements, though widowed men had the highest participation rate of all (see Figure 7.5). Respondents with a partner participated more in each of the different leisure and recreation activities in comparison to those who lived alone or in a household with others (results not shown). Those who lived alone and were divorced had the lowest participation in each of the activities, except for attending a family or social occasion where the least likely to participate were those who lived alone and were single.

Figure 7.5  
*Mean Participation Rate in Leisure and Recreation Activities by Living Arrangements and Gender*



<sup>128</sup>  $F_{(1938,4)} = 23.2, p < .001$

These findings might be explained by the nature of the activities. For example, leisure activities such as going to a restaurant or attending a family event often take place on a couple-companion basis. Another possible explanation might be that middle-aged people living together as a couple tend to have the highest income (see chapter on Income), and financial resources are usually necessary for restaurant and transport expenses.

As noted above, widowed men who were living alone had the highest average participation rate in leisure and recreation activities,<sup>129</sup> followed by partnered men. Divorced and single men, living alone, had the lowest involvement in leisure of both men and women.

For women, the highest rate was among those who had partners, followed by women who lived with others, but even the single and divorced women who lived alone had a higher rate of participation than single or divorced men.

#### 4.2.4 Health

Figure 7.6 shows that middle-aged respondents who had a higher self-rated health had a higher average participation rate in leisure and recreation activities than those who had a lower self-rated health.<sup>130</sup> Women had a higher average participation rate in leisure and recreation activities than their male counterparts, regardless of their level of health.

Figure 7.6

*Mean Participation Rate in Leisure and Recreation Activities by Health and Gender*

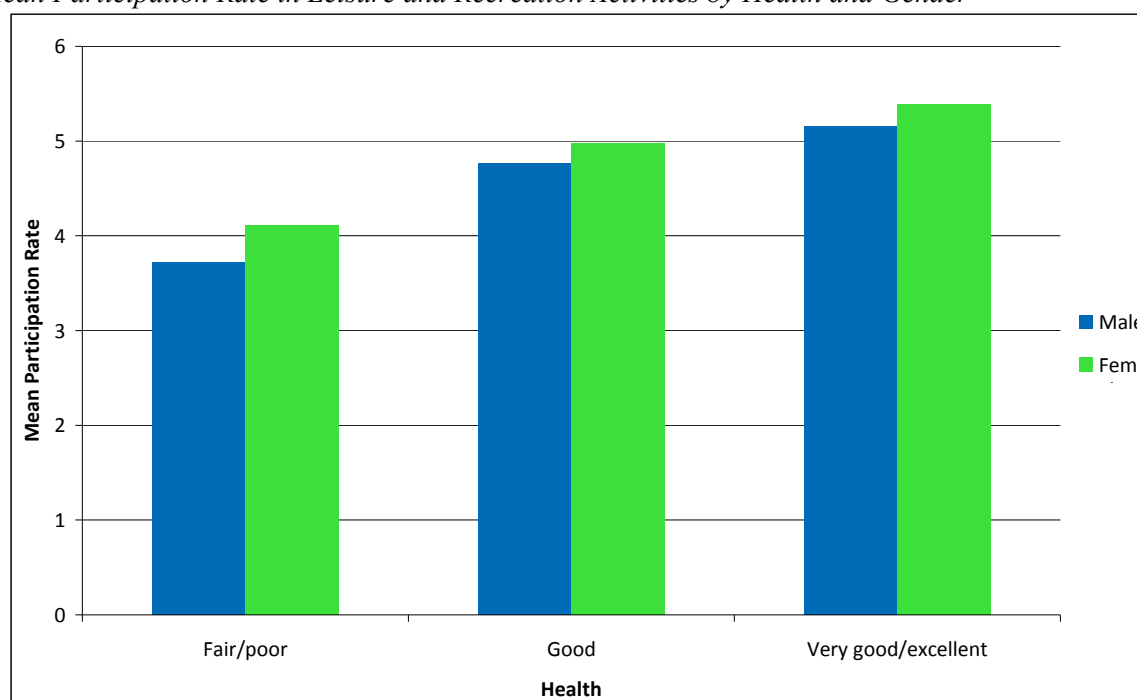


Table 7.3 shows how the level of health may restrict the activities of people, in that middle-aged people who rated their health as fair/poor, as compared with those with better health, participated less often in outdoor activities, or were spectators at a sports event, or went to an entertainment/arts event, restaurant or pub/bar. In contrast, little difference was found in the level of health and those who went to the TAB/casino or to a library. In general, such activities require less physical activity.

<sup>129</sup>  $F_{(2067,9)} = 12.5, p < .001$

<sup>130</sup>  $F_{(2082,5)} = 24.8, p < .001$ . O-order correlation between the participation rate in leisure and recreation activities and the SF12 (PCS and MCS) (see chapter on Health) gave the same results ( $r = .21, p < .001$ , and  $r = .14, p < .001$ , respectively).

Table 7.3

*Participation in Different Types of Leisure and Recreation Activities by Health (%)*

|                          | Fair/Poor <sup>131</sup> | Good | Very good/<br>Excellent |     |
|--------------------------|--------------------------|------|-------------------------|-----|
| Outdoor activity         | 75.8                     | 86.7 | 92.1                    | *** |
| Restaurant/café          | 63.5                     | 80.0 | 86.8                    | *** |
| Family event             | 56.2                     | 63.4 | 72.6                    | *** |
| Social occasion          | 52.6                     | 68.5 | 73.1                    | *** |
| Library                  | 44.0                     | 46.6 | 47.9                    |     |
| Entertainment/arts event | 38.2                     | 48.4 | 58.1                    | *** |
| Pub/bar                  | 33.9                     | 47.4 | 49.1                    | *** |
| Spectator sports event   | 30.2                     | 39.5 | 40.0                    | *   |
| TAB/casino               | 9.1                      | 8.1  | 9.5                     |     |

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

#### 4.3 Comparison of the Participation Rates in Leisure and Recreation of 40-64 year-olds and the 65-84 year-olds by Age, Gender, Education, Income, Living Arrangements, and Health

Comparison with the 65-84 year age-group reveals similar participation patterns to the 40-64 year age-group, with differences most likely resulting from declining health, and greater involvement in paid employment providing more money for leisure and recreation for the younger cohort. In the middle-aged group, women had a small, but significantly higher, participation rate than men ( $M = 5.1$  and  $M = 4.9$  respectively), while in the older age group men had a slightly higher participation rate ( $M = 4.3$  compared to  $M = 4.0$  for older women). In both age groups, and with both men and women, the same activities were the most popular: outdoor activities (the highest) followed by going to a restaurant and family events (see van der Pas & Koopman-Boyden, 2009:117-132, for details on the 65-84 year-olds survey).

Other determinants of participation in leisure and recreation were the same for both the 40-64 year-old and 65-84 year-old group (i.e. the higher the level of education, income and health the higher the participation rate in leisure and recreation), while those living alone (divorced, single or widowed women, but not widowed men) had the lowest rate of participation. Overall, women tended to participate more than men regardless of their living arrangements, with the exception of widowed men, who had the highest rate of participation overall.

#### 4.4 Satisfaction with Participation in Leisure and Recreation Activities

Among the 40-64 year-olds, overall levels of satisfaction with participation in leisure and recreation activities were high, with 86.4% of respondents reporting that they were satisfied with their participation in leisure and recreation activities (and 13.6% reporting they were dissatisfied). There was no difference in satisfaction with participation between men and women.

A significant association was found between satisfaction with participation and age. Older respondents were more satisfied with their participation in leisure and recreation activities than were the younger respondents (see Figure 7.7).<sup>132</sup> It could be that younger respondents are less satisfied because they have less time to participate in leisure and recreation activities due to work and family commitments.

Satisfaction with participation in leisure and recreation activities was significantly associated with the participation rate in leisure and recreation activities.<sup>133</sup> Those who participated in more than five activities were more likely to be satisfied than dissatisfied with their participation (see Figure 7.8). Respondents who participated in four or fewer activities were more likely to be dissatisfied.

<sup>131</sup> Respondents with a fair/poor self-rated health who participated in an entertainment/arts event, as a % of all respondents with a fair/poor self-rated health.

<sup>132</sup>  $\chi^2 = 13.0, p < .05$

<sup>133</sup>  $\chi^2 = 53.3, p < .001$



Figure 7.7

*Satisfaction with Participation in Leisure and Recreation Activities by Age (%)*

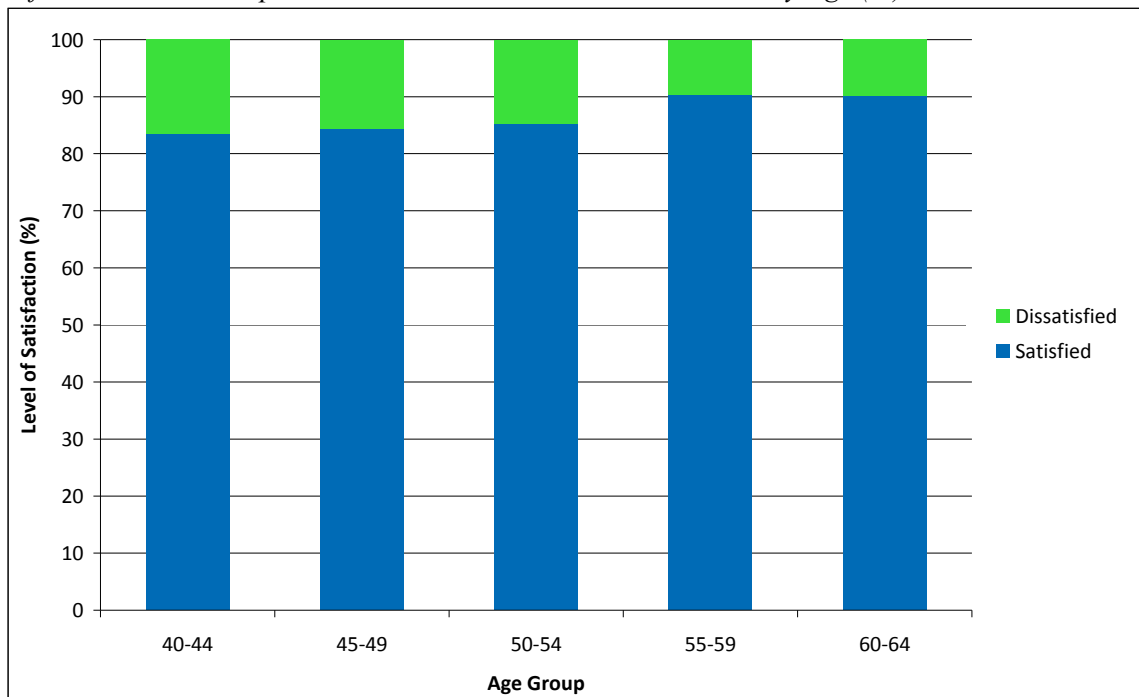
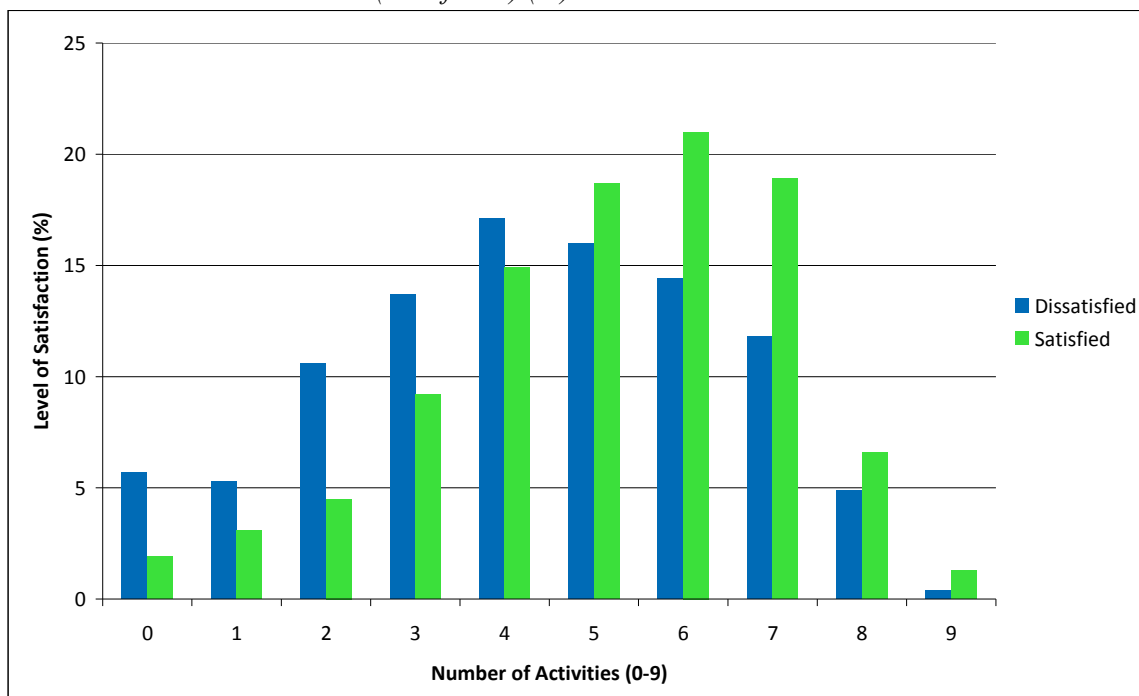


Figure 7.8

*Satisfaction with Participation in Leisure and Recreation Activities by Participation Rate in Leisure and Recreation Activities (out of nine) (%)*

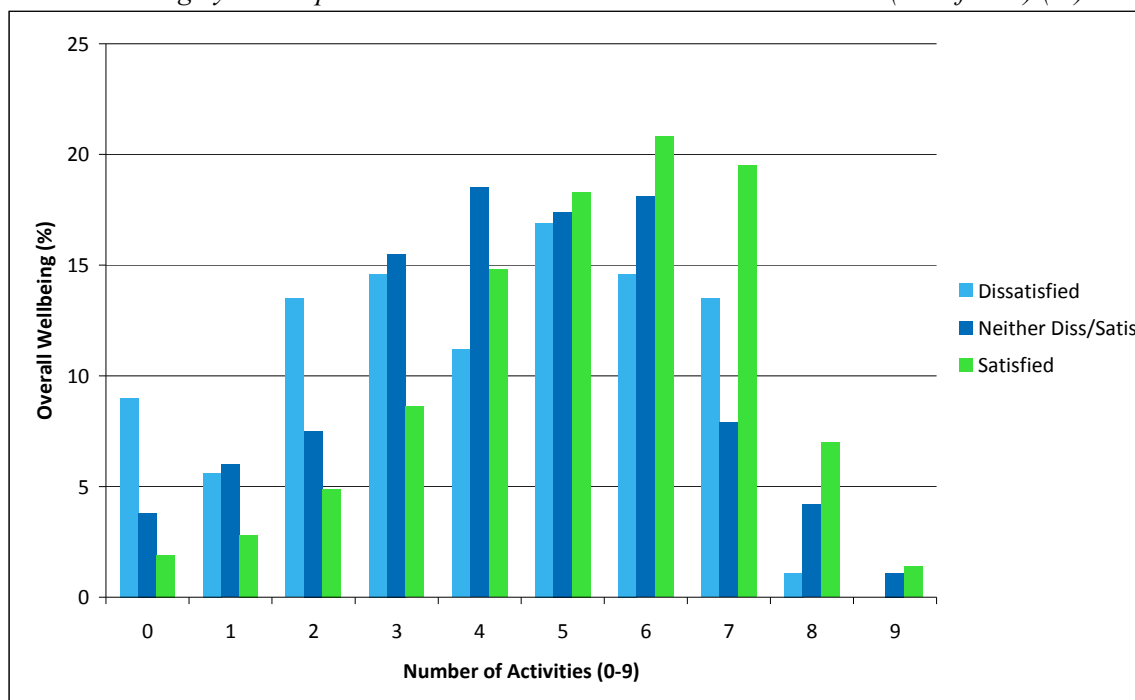


#### 4.5 Participation in Leisure and Recreation Activities, Satisfaction with Participation, and Overall Wellbeing

The researchers were interested in the association between participation in leisure and recreation activities, satisfaction with the rate of that participation, and the level of wellbeing among respondents. Firstly, the participation rate in leisure and recreation activities was significantly related to overall wellbeing. Middle-aged respondents who participated in a larger number of leisure and recreation activities had a higher level of overall wellbeing (see Figure 7.9).<sup>134</sup>

Figure 7.9

*Overall Wellbeing by Participation Rate in Leisure and Recreation Activities (out of nine) (%)*



Secondly, the level of satisfaction with leisure and recreation activities and overall wellbeing also had a very close association (see Figure 7.10). Those with higher satisfaction with their participation in leisure and recreation activities had demonstrably higher overall wellbeing.<sup>135</sup>

Thirdly, the researchers were interested in the association between participation rates in the various types of leisure and recreation and overall wellbeing. There was a close association, whereby those who participated in each of the different activities had higher levels of overall wellbeing.<sup>136</sup> Figure 7.11 shows that of those middle-aged adults, who were (very) satisfied with their overall wellbeing, they participated the most in outdoor activities (90%), visiting a restaurant (85%), attending a social occasion (72%) and taking part in a family event (71%). Clearly, access to outdoor activities plays an important role in enhancing the wellbeing of middle-aged people. Alongside being in an outdoor environment, it also enables social interaction and companionship with family, friends and neighbours (Kweon et al., 1998). With respect to visiting a restaurant, and being part of a social occasion or family event, this result might indicate that the social integration linked to the involvement in such activities is an important aspect of overall wellbeing.

<sup>134</sup>  $\chi^2 = 84.7, p < .001$ , 5-point scale was collapsed to 3-point scale: dissatisfied, neither dissatisfied/satisfied, satisfied

<sup>135</sup>  $\chi^2 = 174.3, p < .001$

<sup>136</sup> All activities were significantly associated with overall wellbeing ( $p < .001$ ) except going to a pub/bar, and going to a TAB or casino.

Figure 7.10  
*Satisfaction with Participation in Leisure and Recreation Activities by Overall Wellbeing (%)*

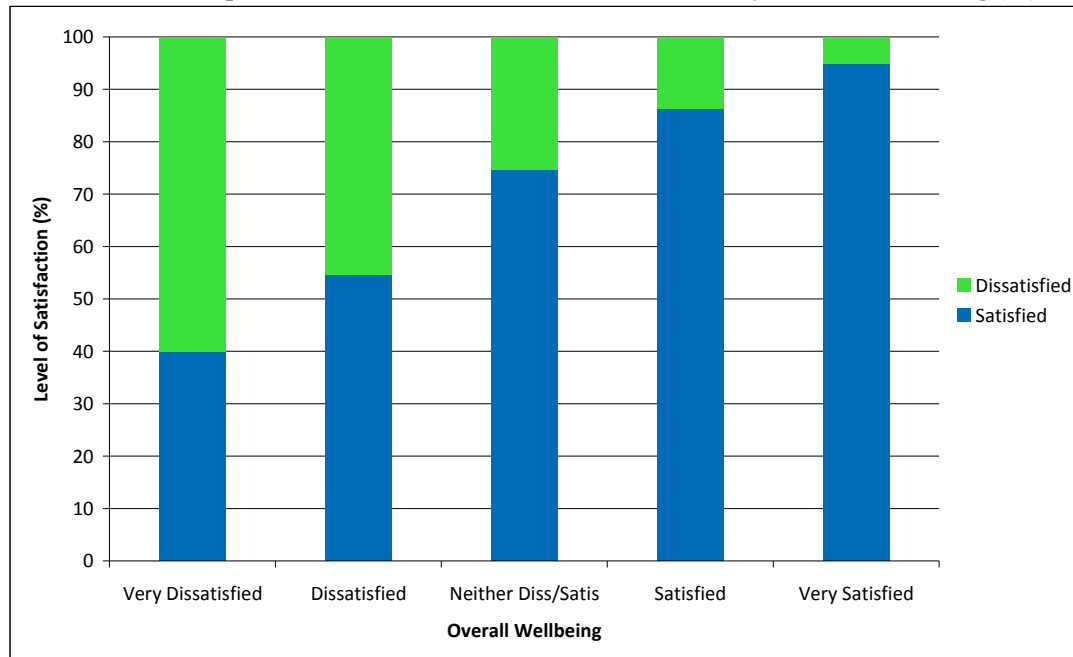
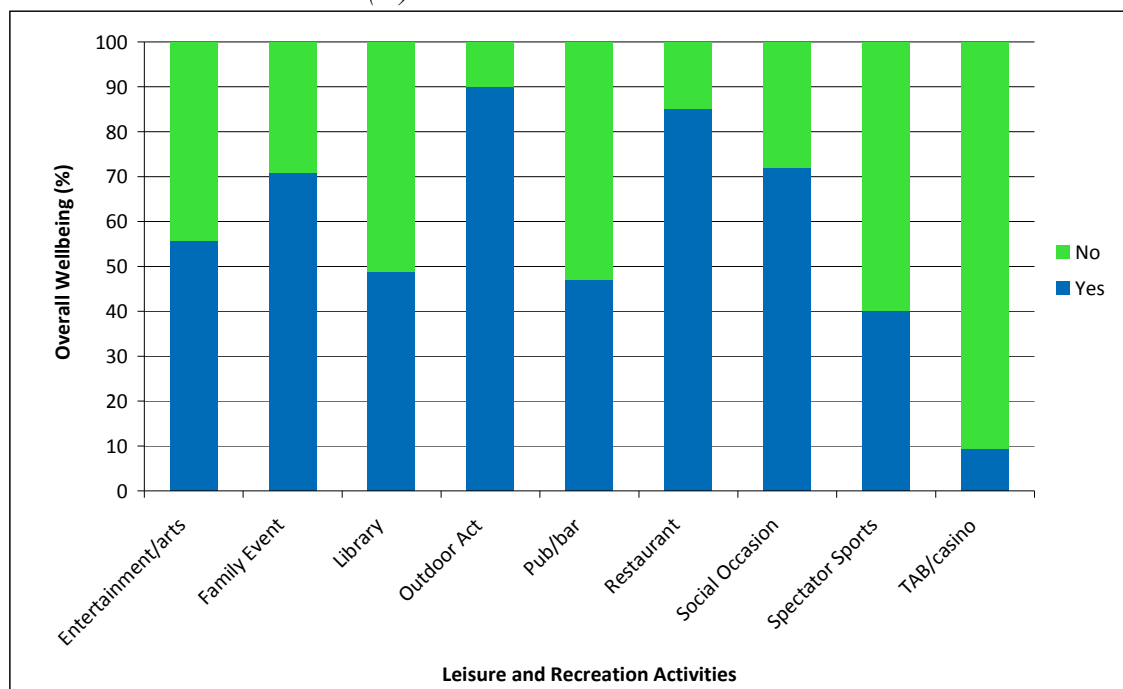


Figure 7.11  
*Respondents with a High Level of Overall Wellbeing<sup>137</sup> by Participation Rate in Different Types of Leisure and Recreation Activities (%)*



## 5. Conclusion

The aim of this chapter was to provide a descriptive overview of middle-aged adults' participation in leisure and recreation activities and to examine the extent to which these activities influenced their

<sup>137</sup> Those who were "very satisfied" and "satisfied" with their overall wellbeing.

wellbeing. It also considered comparisons with the older age group of 65-84 year-olds previously interviewed (van der Pas & Koopman-Boyden, 2009).

Middle-aged people overall averaged a participation rate of 5 activities, with a very low percentage undertaking no activities or only one activity (3 percent in both cases). Women had a significantly higher level of involvement than men (although small), which was probably an outcome of having more time available through their lesser involvement in paid employment than men.

The most popular activities for both men and women were outdoor activities and going to a restaurant, the former illustrating New Zealanders' interest in walking, gardening and swimming (Sport and Recreation New Zealand, 2008). Although women were more involved in most activities than men, both men and women shared a large number of similar interests. However, men were more interested in spectator sport, visiting a pub/bar and the TAB/casino than were women.

Younger age-groups within the 40-64 age-group tended to have a higher rate of participation than the 65 to 84 year-old group, but also tended to be less satisfied with their participation, perhaps indicating a tension between their expectations for participation and their time availability.

A comparison with the 2007 survey of 65-84 year-olds showed that their rate of participation in leisure and recreation was lower than the middle-aged (4.1 activities, compared with 5 activities), with men having a higher participation rate than women among the older group. The reverse was true for the middle-aged. Presumably the greater involvement of middle-aged men in employment is a factor in their lower participation rate in leisure and recreation, but with retirement their participation increases to a higher level than that of the older women.

Both the middle-aged and older age groups participated in similar types of leisure pursuits: outdoor activities and going to a restaurant were the most popular, followed by family events and social occasions. It is recognised that the data are only cross-sectional, but a level of continuity in leisure and recreation participation is quite clear in that the same activities appear as the most popular in both age cohorts. While the popularity of outdoor activities would indicate New Zealanders' passion for walking, gardening and swimming, the popularity of going to a restaurant and family events would indicate the priority given to family and social involvement through such social connectedness.

The findings from the 40-64 year-olds survey showed some clear determinants of the rate of participation in leisure and recreation activities. These were education, income, health and living arrangements: higher education, income and level of health brought a higher participation rate in leisure and recreation. These findings were similar to those with the 65-84 year-olds.

The association between living arrangements and participation in leisure differed between the two age-groups. With the middle-aged group those who lived with a partner or 'others' had a higher participation rate, while those who lived alone had a lower rate, with the major exception of widowed men, who had the highest participation rate of any living arrangement. With the 65-84 year-olds however there were smaller gender differences, so that both widowed men and women (along with those living with a partner or with an 'other') had high participation rates, with the divorced and single who lived alone having the lowest participation rate.

These findings suggest that the presence of a partner seems to be a greater resource for middle-aged women than men, but for older people, having a partner seems to be more advantageous for older men than women. Among middle-aged women, the participation rates of widows were lower than they were for those with a partner. Among middle-aged men, such differences between those with a partner and the widowed were not found. In contrast, among 65-84 year-old men the participation rates of widowers were lower than for those with a partner, while among women these differences between those with a partner and the widowed were not found.

Finally, three associations with wellbeing were identified in this chapter. Firstly, the participation rate in leisure and recreation was positively associated with the level of wellbeing – the more the respondents participated in leisure, the higher was their wellbeing. This confirms findings in international literature, where higher levels of wellbeing were found for those who participated in a larger number of activities (Silverstein & Parker, 2002). Secondly, the higher the satisfaction was with leisure activities, the greater the wellbeing. Thirdly, the highest wellbeing was found with satisfaction with outdoor activities and going to a restaurant, followed by social and family occasions.

Again, these findings on the association with wellbeing are similar to those from the 65-84 year-old survey – higher levels of wellbeing are associated with greater participation in leisure and recreation, and from satisfaction with those activities. Higher wellbeing was associated with participation and satisfaction with specific activities like an outdoor activity and visiting a restaurant, along with social and family occasions (for 40-64 year-olds) and family and entertainment (for 65-84 year-olds).

Overall, this study is in line with previous studies, showing continuity and consistency in the leisure and recreation participation of people as they age (Agahi et al., 2006; Strain et al., 2002; Verbrugge et al., 1996). The preservation of physical and mental function through leisure and recreation activities in middle-age (and all ages) should be added to our existing efforts to prevent disability in older age, in people with and without long-standing illness. Doing so is likely to extend the years of independent living, and therefore lead to an improved quality of life in older age. (Hillsdon et al., 2005:250).

In this respect, Agahi et al. (2006) suggest that: “...in order to uphold an active older population, it may be more important to facilitate participation in activities that elderly cohorts engaged in earlier in life than to start new activities...” (p S345). However, there are also exceptions, where older people engage in new activities such as restaurant visits, dancing and study circles in later life (Agahi et al., 2006). In this respect societal changes also impact on the leisure participation of both middle-aged and older people.

The ‘squeezing out of leisure’ as part of the multiple roles of the middle-aged, particularly by the intensification of work in reducing the time and energy for other activities, is becoming evident in some cross-national studies of the relationships between work, leisure and wellbeing (Haworth & Lewis, 2005). New Zealand may be able to benefit from the policy recommendations of these cross-national studies (Haworth & Lewis, 2005) and thereby encourage the continued active leisure and recreation participation of middle-aged and older people.

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# Chapter 8: Living Arrangements, Physical Environment, and Wellbeing among Midlife New Zealanders

Suzan van der Pas

## 1. Introduction

Midlife is the period of life beyond young adulthood but before the onset of old age, and is generally defined as being the years between 40 and 65 years. Erikson has described the middle age as a period of *generativity*, referring to the adult's ability to care for another person (Erikson, 1950). According to Erikson the most important event in this stage is parenting. Does the adult have the ability to care and guide the next generation?

*Generativity* also has a broader meaning than just the care of children. Adults must have some way to satisfy and support the next generation. Middle-age is therefore associated with the further building of relationships, and these relationships, particularly with children, have an immediate impact on living arrangements. Successfully maintaining relationships is important during the midlife stage. Satisfactory living arrangements, and relationships within the household in particular, are important for the wellbeing and social cohesion of middle-aged people (Hughes & Waite, 2002; Umberson, 1989).

The living arrangements of midlife New Zealanders have predominantly been discussed in the context of family composition (being largely younger families), and the types of dwellings people live in (Families Commission, 2008; Ministry of Social Development, 2004). The living arrangements and preferences regarding the physical environment (both inside and outside the house) of middle-aged people have received less attention. Moreover, these studies have not specifically looked at the extent to which living arrangements and preferences about the physical environment influence the wellbeing of middle-aged people.

The aim of this chapter is to examine the living arrangements of midlife New Zealanders, focusing on the differences between men and women, taking their marital status into account. The chapter identifies a number of aspects of the physical environment, inside and outside the house, and the extent to which living arrangements and physical environment influence their wellbeing. Finally, the chapter compares the living arrangements and physical environment of middle-aged people with older people (65-84 year-olds, as reported in van der Pas, 2009).

## 2. Living Arrangements and Wellbeing

Living arrangements change over the life course, as relationships are formed and reformed. Family history and family structure affect the living arrangements of middle-aged people. In Western industrialised societies, people in their middle years through to early older age increasingly live in diverse family structures (Saraceno, 1997). A large proportion of middle-aged people in their 40s and 50s live with their partner and children; some live with their children only, and some in complex households including their partners, step- and adopted children and other relatives. For those in their late 50s and 60s a large proportion are 'empty nesters', living only with their partner.

The living arrangements of New Zealanders have changed in several ways over the past decades. These changes largely reflect similar developments in other Western countries. Although couples with children are still the largest single category of family (Families Commission, 2008), at the same time a number of other family forms have become more common, and the average size of families today is smaller than that of previous generations.



For New Zealand families, there has been a decrease in the rate of marriage, an increase in divorce rate and an increase in the number of marriages which are remarriages (Families Commission, 2008). The marriage rate<sup>138</sup> has declined steadily from 45.5 per 1,000 in 1971, to 15.6 per 1,000 in 1998, and 13.7 per 1,000 in 2008 (Statistics New Zealand, 2009a). Factors which are attributed to the decrease in marriage rate are the growth in de facto unions, the trend towards delayed marriage and an increase in New Zealanders remaining single (Statistics New Zealand, 2009a). The divorce rate<sup>139</sup> rose from 7.4 in 1976 to 11.6 by 2006, peaking at 17.1 in 1982 (Statistics New Zealand, 2008a). The proportion of marriages that were remarriages has increased from just 16% in 1971 to 34% in 2006 (Statistics New Zealand, 2008a).

There has also been a dramatic decrease in the fertility rate, resulting in a reduction in the average size of families (Families Commission, 2008). The fertility rate has been decreasing since the 1960s, from 4.31 births per women in 1961, 3.00 in 1972, 2.12 in 1979 and has remained stable over the last three decades, averaging 2.01 births per women (Statistics New Zealand, 2009b).

People who are now 40 to 64 years old formed their families during a period when diversity in family form became commonplace. They are more likely than their parents to have had their children later and to have fewer children (Families Commission, 2008). They are also more likely than their parents to have been involved in parenting shared between households and parenting children from other relationships, as rates of divorce and remarriage increased during the 1980s and 1990s.

Patterns of marriage and family formation for people born between 1944 and 1970 were different, depending on whether they were early or late baby boomers (Families Commission, 2008). Early baby boomers were more likely to marry, and married earlier than the later baby boomers, in a pattern more akin to their parents. 47 percent of women born in the 1950s, for example, had legally married by the age of 25 years. By contrast, only 20 percent of women born in the 1960s had legally married by that age (Pool, Dharmalingam, & Sceats, 2007).

The majority of middle-aged people today live in one of two broad living arrangements: in a couple with children household, or a couple without children household (see Table 8.1) (Statistics New Zealand, 2008b).

Table 8.1

*Household Composition among People 40-64 years, Census 2006 ( %)*

|                                     | Male | Female | Total |
|-------------------------------------|------|--------|-------|
| Couple without children             | 33.8 | 36.7   | 35.3  |
| Two parent family                   | 42.8 | 35.8   | 39.3  |
| One parent family                   | 6.3  | 12.4   | 9.4   |
| Multi-person household              | 4.4  | 3.7    | 4.1   |
| One person household                | 11.1 | 10.6   | 10.8  |
| Non private dwelling <sup>140</sup> | 1.4  | 0.7    | 1.1   |

*Source:* Statistics New Zealand, 2008b.

The living arrangements of midlife New Zealanders vary significantly by age and sex within the 40 to 64 year-old age group (Statistics New Zealand, 2008b). In 2006, about 80% of men aged 40-54 were in a family household.<sup>141</sup> By age 55, this percentage had remained stable, but the proportion living as a couple without children had increased.<sup>142</sup> More than 80% of women aged 40-54 were also in a

<sup>138</sup> Number of marriages per 1,000 estimated not-married population aged 16 years and over.

<sup>139</sup> Number of divorces per 1,000 existing marriages.

<sup>140</sup> Accommodation including hospitals.

<sup>141</sup> 22.4% were in a couple without children household, 53.4% were in a couple with children household, and 7.4% were in a one parent family with children.

<sup>142</sup> 57% were in a couple without children household, 21.4% were in a couple with children household, and 4.2% were in a one parent family with children.

family household, but with twice the number in a one parent family than men in that same age group.<sup>143</sup> By age 55, there was a decrease in the proportion of women living in a family household and an increase in 'one-person households'.

International studies have shown that living arrangements influence the wellbeing of middle-aged people and their families. Some studies have shown that the household provides a context where household members benefit from varied levels of social integration as well as support, promoting good health outcomes (Hughes & Waite, 2002). However, other studies find that relations between household members can also be less positive, and may involve stressful interactions and be damaging to individuals' wellbeing (Rook, 1984).

Waite and Hughes (1999) found that people living in household types other than as a couple or with children, had disadvantages on a range of health measures. Later middle-aged people living in the most demanding and least supportive households had poorer functioning, particularly single women living with children. They conclude that the social context formed by the household is important to individual health outcomes, and the effect of marital status on health depends on the household context.

Findings on the relationship between middle-aged people living in shared households and wellbeing are inconsistent. Parent-child relationships are a particularly strong source of social support and solidarity (Umberson, 1992). However, some international research on parenting and wellbeing suggests the presence of children in the parent's home may have a negative impact on the psychological wellbeing of parents (McLanahan & Adams, 1987). Changes such as divorce, remarriage and single parenting place strain on the parent-child relationships (Kalmijn, 2008; McLanahan, 1983). Some studies show a modest increase in parental wellbeing after children leave the parental home (Dennerstein, Dudley & Guthrie, 2002). Other studies have found that parenthood contributes to a sense of meaningfulness (Umberson & Gove, 1989) and a reduction of negative health behaviours (Umberson, 1987). Various studies indicate that parent-child relationships have both positive and negative effects, varying by relationship quality, and the circumstances of parents and children (Silverstein, Chen, & Heller, 1996; Ward, 2008).

### **3. Physical Environment and Wellbeing**

The physical environment of middle-aged people can be viewed in a number of ways. Some researchers and policymakers adopt the ecological approach of Bronfenbrenner (1979), which puts individuals at the heart of a number of concentric circles of environmental influence. These circles include the family, friends, the neighbourhood, and community. More recent versions of the theory recognise that the process of interaction between the individual and the environment will vary according to individual or family characteristics, the environmental context, and life cycle stage (Bronfenbrenner & Morris, 1998).

Although neighbourhoods have been found to influence peoples' wellbeing, a number of studies have concluded that the physical or geographical neighbourhood is a less important influence on successful individual outcomes than other factors such as family dynamics and social networks (Burgess, Gardiner, & Propper, 2001). In urban areas particularly, many people have only part of their personal networks in their locality. Their social networks are likely to be strongly influenced by their housing status, education, and income and their history of geographical mobility.

The wellbeing of middle-aged people and those with whom they live in a household depends to a large extent on having access to good education, health services, housing, transport and adequate income (Pickett, 2001). Income has a significant effect on the ability of people to access these resources as well as their ability to take part in social, recreational and community activities.

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<sup>143</sup> 14.9% for 40-54 year-olds and 7.3% for 55-64 year-olds.

International studies have also shown that there is a relationship between place and wellbeing (Lawton, 1983; Oswald et al, 2007). For example, Oswald et al's work on the relationship between objective and perceived housing and wellbeing, showed that older people who perceive their home as meaningful, and who think that others are not responsible for their housing situation, have greater wellbeing in all five European countries studied.<sup>144</sup> However, in another study focusing on the influence of attachment to place and wellbeing of the over 50s in England (Gilleard, Hyde & Higgs, 2007), no association was found between feelings of attachment to one's area and feelings of wellbeing. The authors suggest that the causality may be reversed, and the feeling of wellbeing itself contributes to attachment to place.

New Zealanders have a strong attachment to their homes, driven by both comfort and practicality (Wiles et al, 2009). In a recent qualitative New Zealand study on attachment to place, Wiles et al (2009) conclude that attachment to place is developed through the relationship between a number of physical and social features such as location, convenience of the house, proximity to family and involvement in neighbourhood activities. This suggests that it is the continuously changing balance between the social-emotional and practical aspects of living in a certain place which influences the wellbeing of people.

## **4. Data and Method**

The data were collected as part of the Enhancing Wellbeing in an Ageing Society research programme. The sample included 1,958 New Zealand respondents (48.9% men and 51.1% women) aged between 40-64 years, who were interviewed using computer assisted telephone interviewing (see Chapter One for further details).

### *4.1 Living Arrangements*

The living arrangements of the respondents were categorised in two ways. Firstly, a composite variable was constructed based on partner status and household composition. Five categories were distinguished, namely (1) respondents living with their partner (or spouse) with or without others; (2) widowed living alone; (3) divorced or separated living alone; (4) single living alone and (5) respondents living with others, related and/or unrelated without a partner.

A second categorisation of living arrangements did not include people living alone or living as a couple only. It was limited to other respondents living in a shared household. Six categories were distinguished, namely: (1) couple living with others; (2) couple with one or more children; (3) couple with one or more children and others; (4) one parent with one or more children; (5) one parent with one or more children and others; and (6) household with related and/or unrelated persons.

### *4.2 Physical Environment*

Factors which may impact on physical environment were examined through the level of urbanisation, moving in the previous five years, satisfaction with house size, factors impacting on continued living in their own home and whether respondents had difficulties accessing amenities. Urbanisation was divided into four categories: urban areas, outskirts of a city, small town, and rural area.

Respondents were asked to assess what factors would enable them to continue to live in their own homes as they grew older. A question was also asked whether getting to the shops or public transport was difficult for the respondents, with a response of 'no', 'yes' or 'someone else takes me'. The response categories 'yes' and 'someone else takes me' were combined in the analysis.

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<sup>144</sup> Germany, the UK, Sweden, Hungary, and Latvia.

#### 4.3 *Satisfaction with Physical Environment and Overall Wellbeing*

A subjective measure of satisfaction with the physical environment was used, with the dichotomous response (satisfied/dissatisfied) to a question as to whether the respondent was satisfied with the physical environment inside and outside the house, similar to the other dimensions of wellbeing in this study. The overall wellbeing of the respondents was measured by asking: “How satisfied are you with your life as a whole these days?” The response categories ranged from 1 ‘very dissatisfied’ to 5 ‘very satisfied’. The average overall wellbeing was 4.1 (SD = .86).

#### 4.4 *Other Measures*

Socio-demographic variables included gender, age, education and income level, and health. Five age categories were distinguished: 40 to 44 years, 45 to 49, 50 to 54, 55 to 59 and 60 to 64. Respondents were asked their highest completed educational qualification. The responses were recoded into four categories: up to primary education, secondary education, vocational or trade qualification, and university qualification (for further explanation see the chapter on Education). Income level was based on total personal income before tax in income bands in five categories: up to \$15,000, \$15,001-20,000, \$20,001-30,000, \$30,001-40,000, and \$40,001 or more. Finally, health was measured by asking respondents to assess, on a five point scale, their own health status. Three categories of self-rated health were distinguished: ‘poor/fair’, ‘good’, and ‘very good/excellent’.

#### 4.5 *Procedure*

In the descriptive analyses, bivariate associations were investigated between gender, age, level of urbanisation, education and income level, and health on the one hand and living arrangements on the other. The analyses include frequency distributions, where the differences between categorical variables were examined using chi-square tests. The association between socio-demographic variables and the physical environment was also examined. Lastly, bivariate associations were investigated between living arrangements, satisfaction with physical environment, and overall wellbeing. The data has been weighted to make the results representative of the New Zealand population aged 40 to 64 (as noted in Chapter One).

### 5. Results

#### 5.1 *Living Arrangements According to Partner Status*

Among the sample of 40-64 year-olds, the largest proportion lived with a partner (and others) (76%),<sup>145</sup> followed by 13% who lived alone,<sup>146</sup> and 11% who lived in a household with others without a partner. There is a significant gender difference in living arrangements among middle-aged people, with men more often living with a partner than women (see Figure 8.1).<sup>147</sup> In contrast, women more often lived with others than men. These women were predominantly divorced. Other living arrangement types did not show major gender differences.

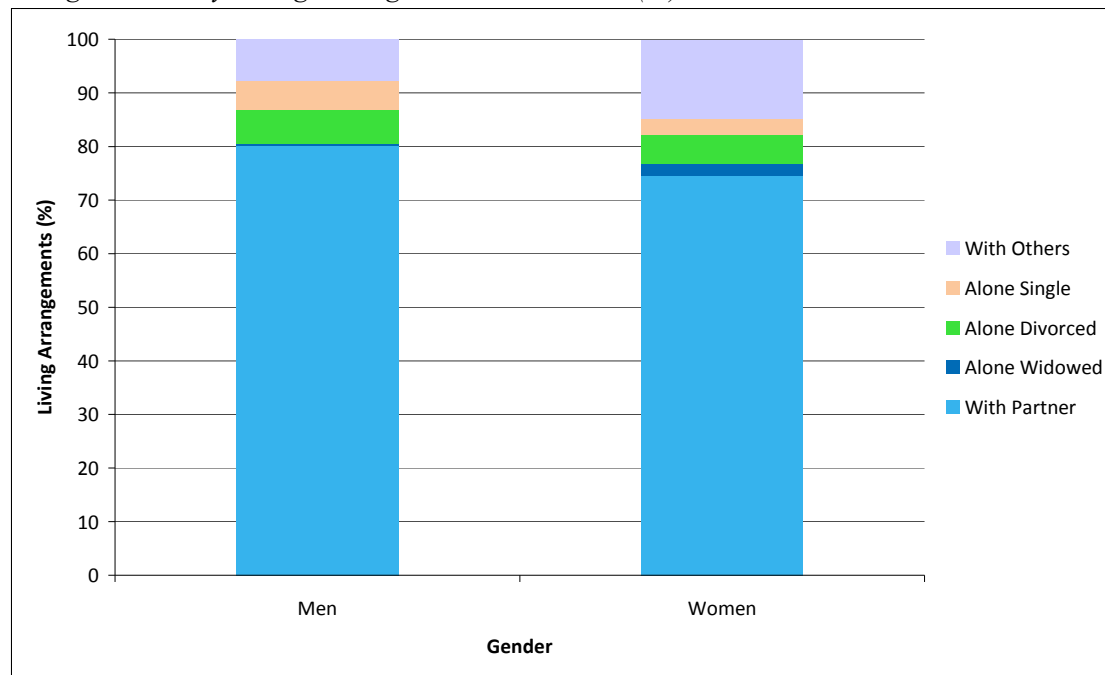
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<sup>145</sup> 32% lived with a partner only; and, 44% lived with a partner and others.

<sup>146</sup> Widowed, divorced or separated, or single

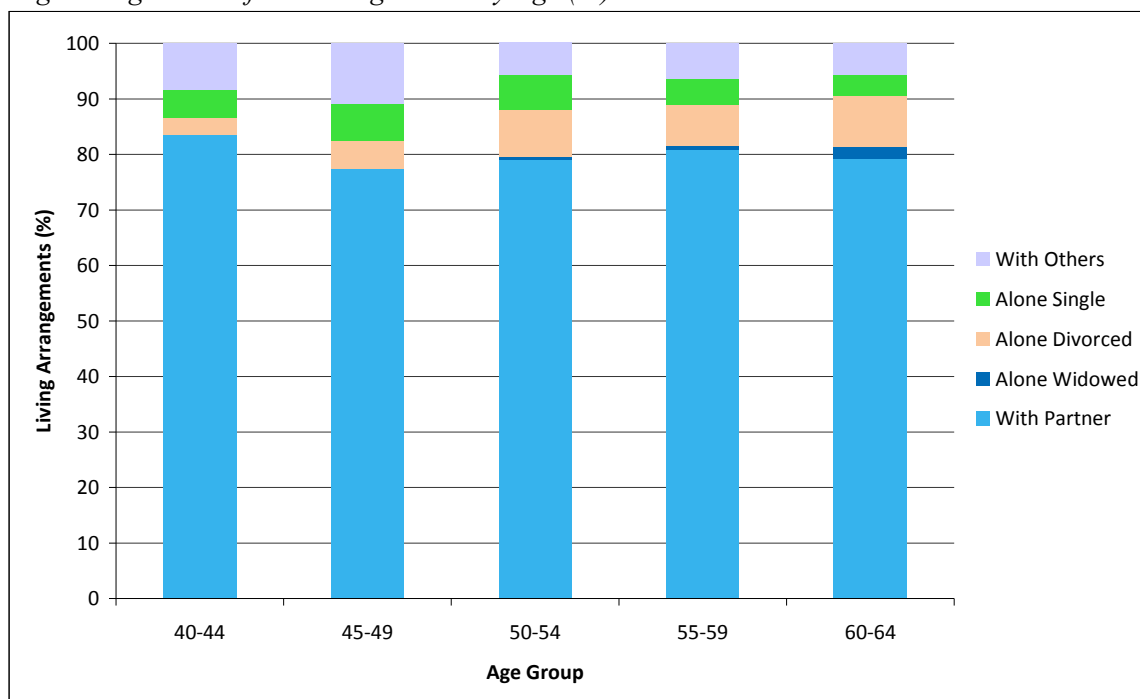
<sup>147</sup>  $\chi^2 = 40.6, p < .001$

Figure 8.1  
*Middle-aged Adults by Living Arrangements and Gender (%)*



Figures 8.2 and 8.3 show the distribution of men and women in different age categories across living arrangements. In Figure 8.2 84% of men between 40 to 44 years lived with a partner.<sup>148</sup> After the age of 45 years the proportion of men living with a partner decreases somewhat but remains stable at around 80% until the age of 64 years. The proportion of middle-aged men living alone (single, divorced or widowed) increases with age, from 8% between 40 and 44 years to 15% among the 60 to 64 years old age group.

Figure 8.2  
*Living Arrangements of Middle-aged Men by Age (%)*

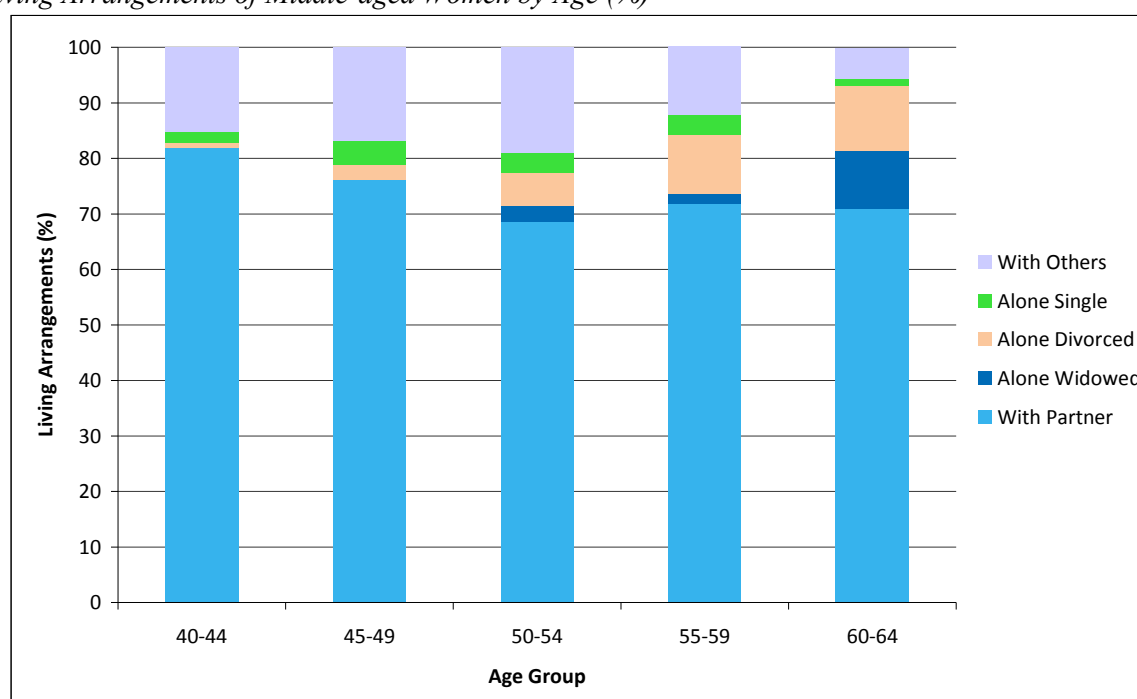


<sup>148</sup>  $\chi^2 = 25.2, p < .001$

A comparison of Figures 8.2 and 8.3 shows that the age structure of living arrangements among women differs from that among men. The proportion of women who lived with a partner decreased much faster by age than among men (from 82% for the 40 to 44 age category to 71% for the 60 to 64 age group),<sup>149</sup> and the proportion living on their own increased much faster (from 3% to 23%). Women more often lived with others, increasing to 19% at 54, but decreasing to 6% among the 60 to 64 year-olds.

The reasons for this are probably the higher mortality among men, and the older age of men at marriage. This enhances the chances that wives outlive their husbands. Women also remarry less often after divorce (Statistics New Zealand, 2008a), increasing the chances of living alone.

Figure 8.3  
*Living Arrangements of Middle-aged Women by Age (%)*



Education and income level were significantly associated with household composition. Middle-aged people with a university qualification were more likely to be single and living alone, or living with a partner, than those with lower education levels (results not shown).<sup>150</sup> Those with only primary education were more likely to be living with others.

Respondents with a personal income of \$30,001 or more were more likely to live with a partner compared with those with a personal income of \$15,001-30,000 (results not shown).<sup>151</sup> In contrast, those with a personal income of \$15,001-20,000 were more likely to be living with others.

Figure 8.4 shows that middle-aged people with fair or poor self-rated health were more likely to be single and living alone or living with others.<sup>152</sup> Those with self-rated health which was very good or excellent were more likely to be living with a partner. Hughes and Waite (2002) suggest that the reasons for this may be that households with partners generally have more economic resources, monitor their health more and have more social support than other households. A significant

<sup>149</sup>  $\chi^2 = 100.1, p < .001$

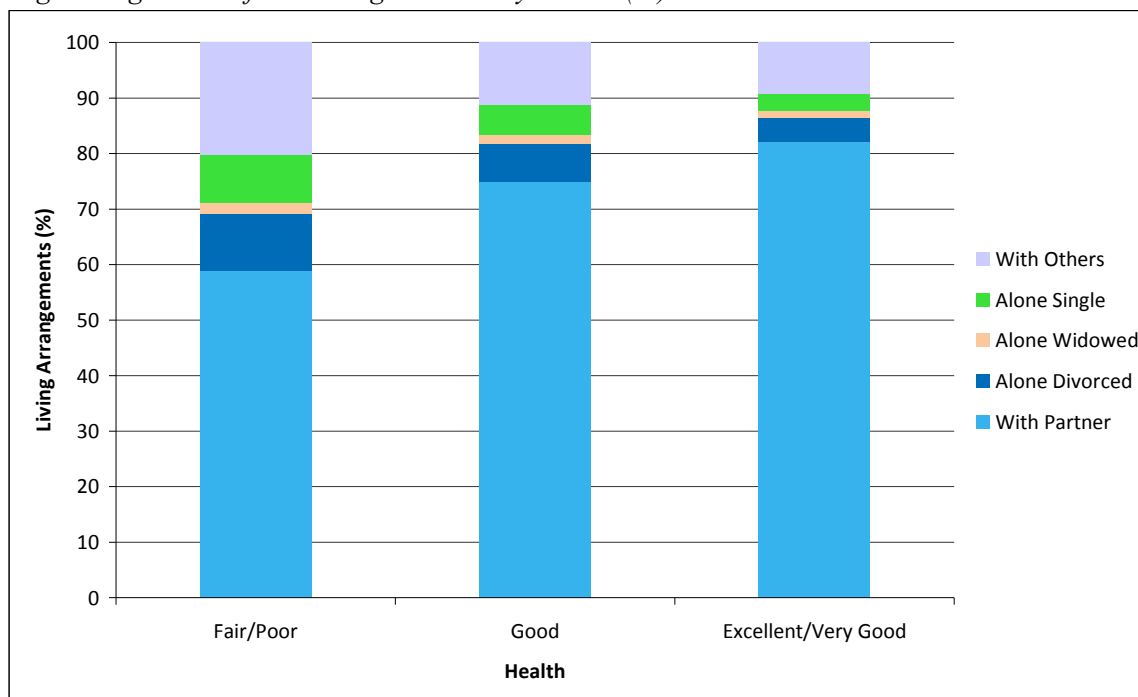
<sup>150</sup>  $\chi^2 = 37.0, p < .001$

<sup>151</sup>  $\chi^2 = 47.0, p < .001$

<sup>152</sup>  $\chi^2 = 69.2, p < .001$

association was found between partner status and health (data not shown).<sup>153</sup> The results match the results for the total sample, suggesting that the effects of living arrangements mirror the effect of having a partner.<sup>154</sup>

Figure 8.4  
*Living Arrangements of Middle-aged Adults by Health (%)*



## 5.2 Shared Households

In total, 55% of the 40-64 year-old respondents lived in a shared household.<sup>155</sup> Most were living with a child (88%).<sup>156</sup> A smaller number of respondents were living with people other than children: 5% were couples living with others, and 7% were respondents living in a household with related and/or unrelated people.<sup>157</sup>

The living arrangements of women in shared households differ from men (see Figure 8.5).<sup>158</sup> Men more often lived in a shared household as a couple. Women more often lived in a shared household as an individual without a partner.

<sup>153</sup>  $\chi^2 = 70.6, p < .001$

<sup>154</sup> Married middle-aged people were more likely to report an excellent/very good self-rated health than divorced, widowed or single middle-aged people.

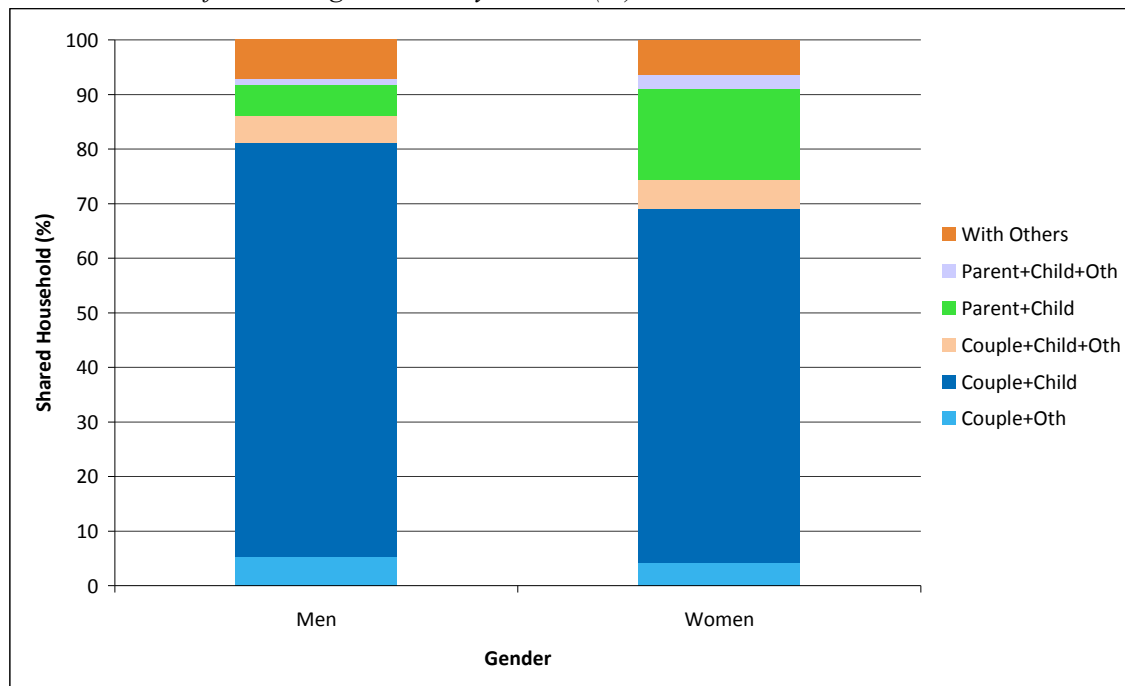
<sup>155</sup> 44.3% lived with a partner and others; 7.4% lived as a single person with others; and 3.8% lived in a household with related and/or unrelated people.

<sup>156</sup> Parent + child; Couple + child; Parent + child + others; Couple + child + others.

<sup>157</sup> Of this last group, 2.3% were related people only; 4.4% were unrelated people only; and 0.2% were related and unrelated people.

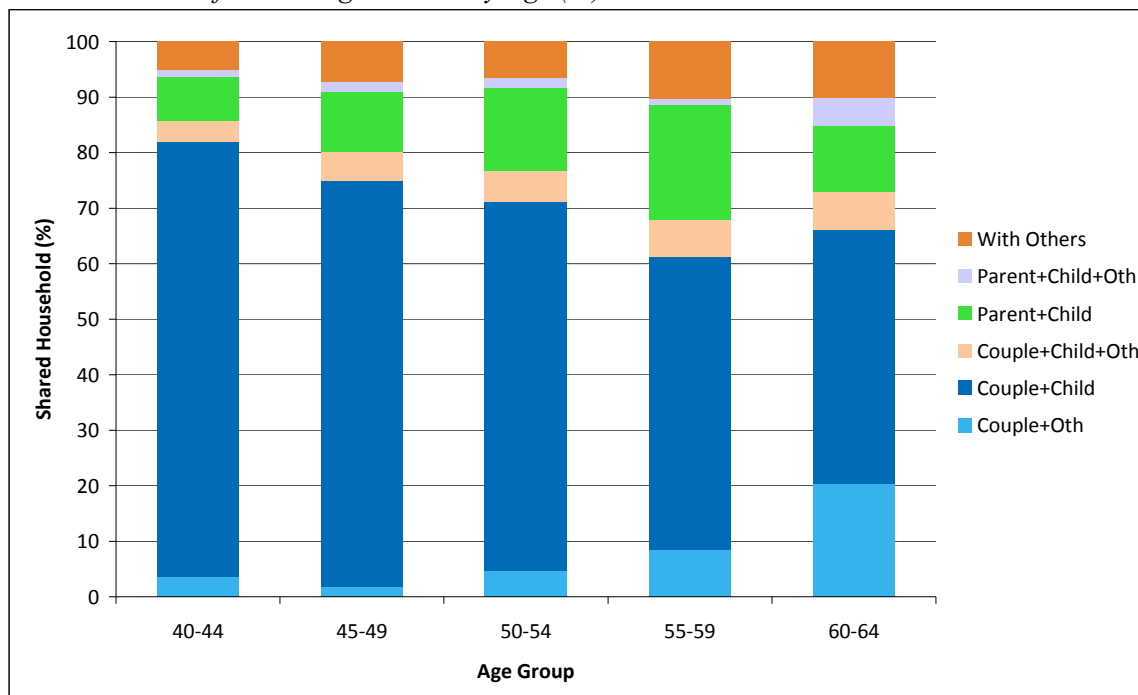
<sup>158</sup>  $\chi^2 = 38.3, p < .001$

Figure 8.5  
Shared Household of Middle-aged Adults by Gender (%)



There was also a significant association between living in a shared household and age.<sup>159</sup> Figure 8.6 shows that 78% of middle-aged people between 40 to 44 years lived with a partner and children. The proportion living with a partner and children decreases to 46% for those between 60 and 64 years. The proportion of middle-aged people living with others, either as a couple or alone, increases with age, from 9% between 40 and 44 years to 31% among the 60 to 64 year-old age group.

Figure 8.6  
Shared Household of Middle-aged Adults by Age (%)



<sup>159</sup>  $\chi^2 = 80.7, p < .001$

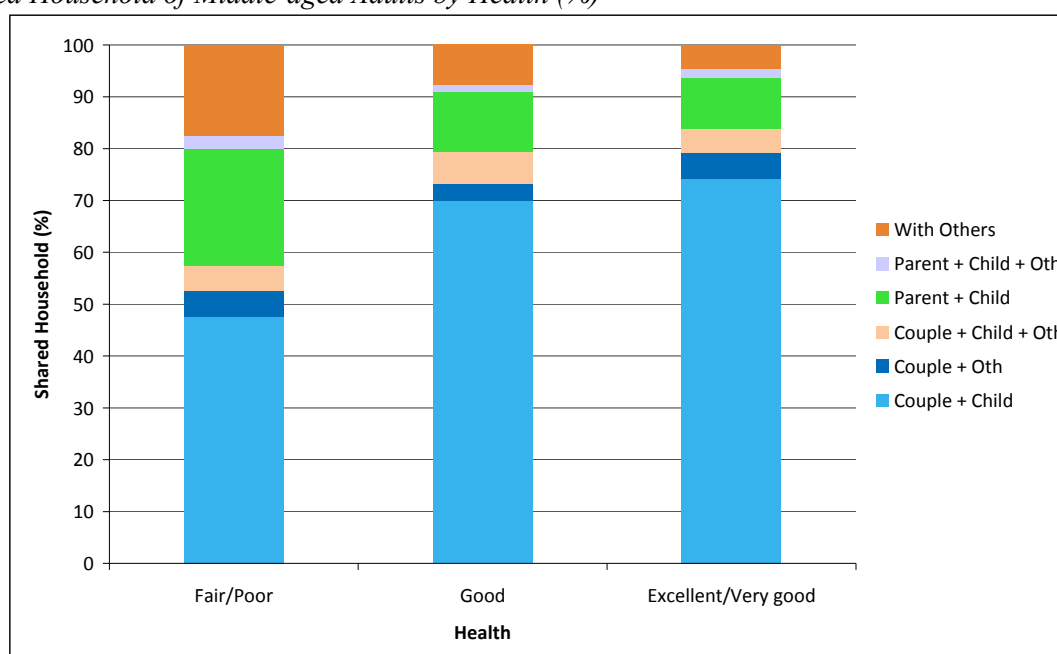


Living in a shared household was significantly associated with education and income level. Respondents with higher education were more likely to live as a couple with children than those with lower education levels (results not shown).<sup>160</sup> In contrast those with a lower education were more likely to live as a parent with children and others, or live with others, related and/or unrelated, than those with a higher education.

Respondents with a higher income were more likely to live as a couple with children and others, than those with a lower income (results not shown).<sup>161</sup> Respondents with a lower income were more likely to live as a parent with children than those with a higher income. This suggests that partner status may have a mediating effect on living in a shared household whereby for those with a low income, available resources such as income affects the decision to live in a shared household.

Figure 8.7 shows that respondents who had a fair or poor self-rated health were more likely to live as a parent with children or to live with others, related and unrelated.<sup>162</sup>

Figure 8.7  
*Shared Household of Middle-aged Adults by Health (%)*



### 5.3 Physical Environment

The association between level of urbanisation, moving in the last five years, satisfaction with house size, factors impacting on continued living in one's own home, whether respondents had difficulties accessing amenities, and social-demographic variables, was examined.

#### 5.3.1 Level of Urbanisation

The majority of the 40-64 year-old respondents lived in urban areas (55%), followed by rural areas (20%), small towns (15%), and the outskirts of a city (10%). The level of urbanisation was significantly associated with living arrangements, education and income level. However, there was no significant association between urbanisation and age, gender or health.

Figure 8.8 shows that middle-aged people who were widowed and living alone, more often lived in the outskirts of a city or small town compared with other living arrangements.<sup>163</sup> Those who were

<sup>160</sup>  $\chi^2=41.2, p < .001$

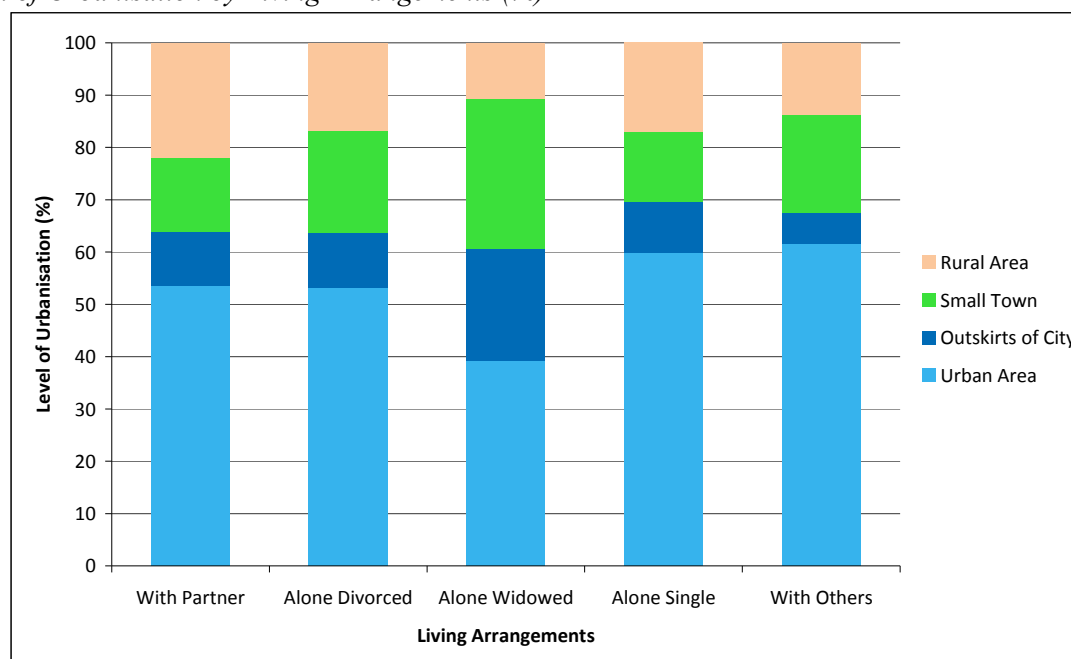
<sup>161</sup>  $\chi^2=39.4, p < .001$

<sup>162</sup>  $\chi^2=53.1, p < .001$

alone and single or living with others, were more likely to live in an urban area compared with other living arrangements.

Figure 8.8

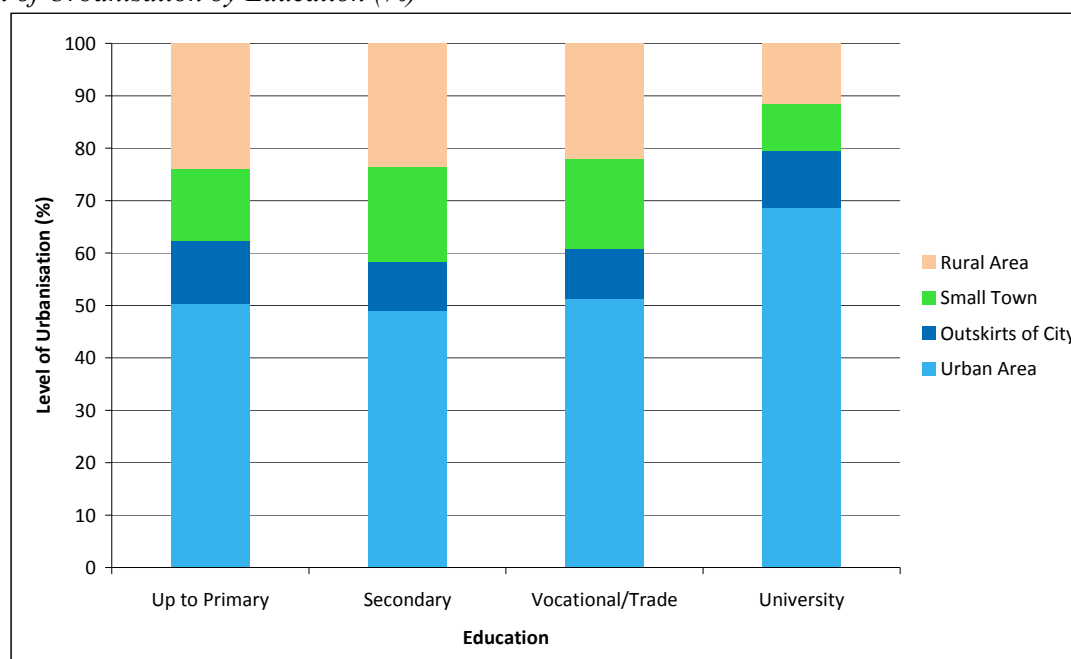
*Level of Urbanisation by Living Arrangements (%)*



Significant associations were also found between the level of urbanisation and education and income levels. Higher educated 40-64 year-olds were more likely to live in an urban area compared with lower educated middle-aged people<sup>164</sup> (see Figure 8.9). In comparison, middle-aged people with a lower education level were more likely to live in a rural area compared with those with a higher education level.

Figure 8.9

*Level of Urbanisation by Education (%)*

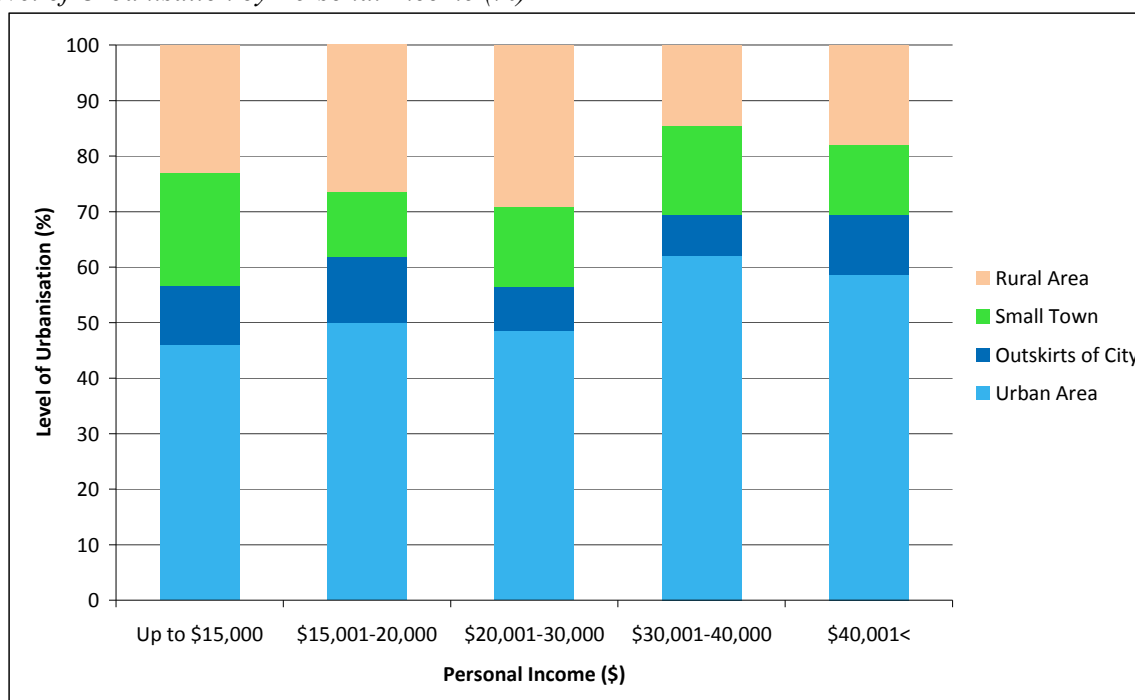


<sup>163</sup>  $\chi^2 = 28.4, p < .01$

<sup>164</sup>  $\chi^2 = 66.0, p < .001$

The results for personal income level show that middle-aged people with a personal income of \$30,001 or more were more likely to live in an urban area compared with those with a lower personal income (see Figure 8.10).<sup>165</sup> Those with a personal income of \$30,000 or less were more likely to live in a rural area in comparison with those with a personal income of \$30,001 or more.

Figure 8.10  
*Level of Urbanisation by Personal Income (%)*



### 5.3.2 Moving in the Previous Five Years

Most of the respondents have been living in the same area over the previous five years (74%). There was no difference in the proportion of middle-aged people who moved in the previous five years according to living arrangements, gender, education and income level, or health. However, moving in the previous five years was significantly associated with age (results not shown).<sup>166</sup> Those who were younger moved more often over the past five years, compared with those who were older.

### 5.3.3 Satisfaction with House Size

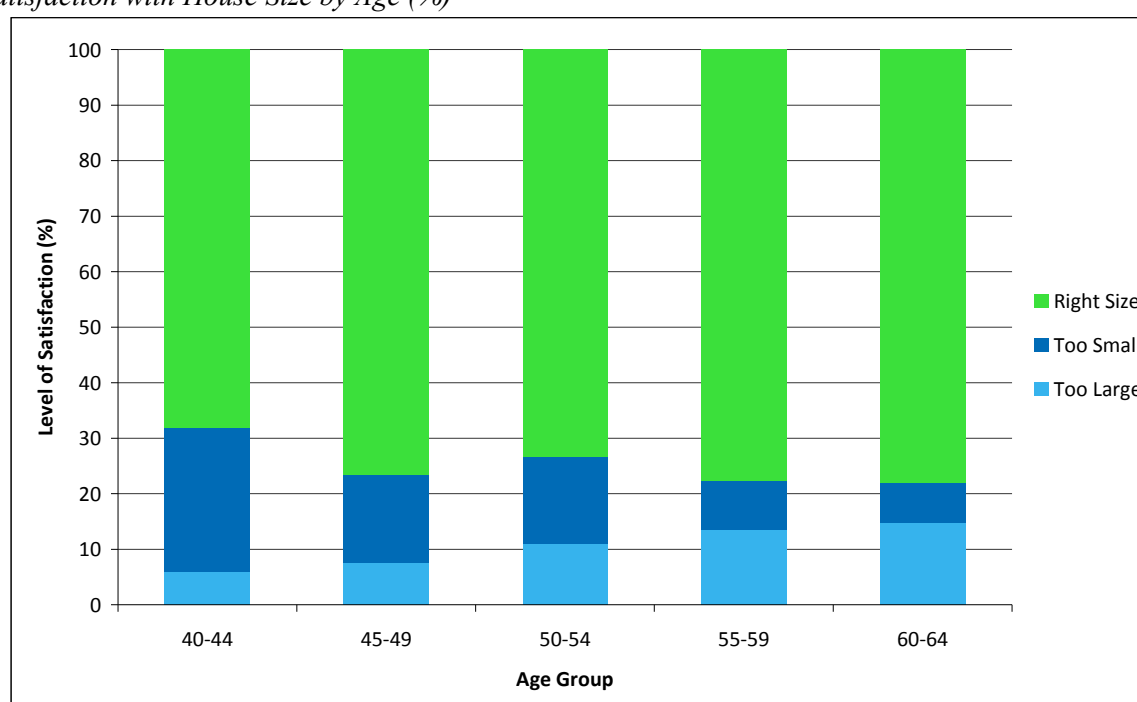
Middle-aged people were generally very satisfied with the size of their current home. 74% reported that their home was the 'right size', 10% reported that it was 'too large' and only a small proportion found their home to be 'too small' (16%). There was no difference in satisfaction with the size of the home between genders, living arrangements, education and income level. However, there was a significant association between satisfaction with house size and age and health. The youngest age category (between 40 and 44 years old) were more likely to find their homes too small than other age categories, perhaps because they were the most likely to have teenaged and young adult children living at home. Middle-aged people between 55 and 64 years old were the most satisfied with the size of their house (see Figure 8.11).<sup>167</sup>

<sup>165</sup>  $\chi^2 = 34.5, p < .001$

<sup>166</sup>  $\chi^2 = 54.4, p < .001$

<sup>167</sup>  $\chi^2 = 79.7, p < .001$

Figure 8.11  
Satisfaction with House Size by Age (%)



Middle-aged people were also less satisfied with the size of their house when they had a lower self-rated health (results not shown).<sup>168</sup> Those who rated their health as excellent or very good were more likely to find their house to be the right size compared with those who rated their health as fair or poor. Middle-aged people who rated their health as fair or poor were more likely to find their house too small.

#### 5.3.4 Continued Living in Own Home

The most important factor that middle-aged people reported would enable them to continue to live in their own home was having good health - either themselves or their spouse (80%). More than half of the respondents stated that a desirable neighbourhood was important (63%) and reasonable rent/maintenance costs (60%). Having family and friends living close by was also important (60%), which suggests social networks also play an important role in their sense of belonging and identification with place. Only a very small proportion of the midlife group did not intend to stay in their own home (6%). There were no significant gender differences (see Table 8.2).

Table 8.2  
Factors Impacting Continued Living in Own Home by Gender (%)

|                                   | Males | Females |
|-----------------------------------|-------|---------|
| Good health                       | 81.2  | 79.3    |
| Desirable neighbourhood           | 65.2  | 61.2    |
| Reasonable rent/maintenance costs | 61.7  | 58.7    |
| Family/friends close by           | 58.0  | 61.5    |
| Easy access to transport          | 52.0  | 54.0    |
| Do not intend to stay in house    | 5.5   | 7.2     |

In general, the importance of the factors was consistent across almost all age bands. Only with respect to having reasonable housing costs was there an age difference, in that the younger age categories found this more important than the older age categories (see Table 8.3).

<sup>168</sup>  $\chi^2 = 36.4, p < .001$

Table 8.3

*Factors Impacting Continued Living in Own Home by Age (%)*

|                                   | 40-44 | 45-49 | 50-54 | 55-59 | 60-64 |     |
|-----------------------------------|-------|-------|-------|-------|-------|-----|
| Good health                       | 78.5  | 81.0  | 82.2  | 78.0  | 81.6  |     |
| Reasonable rent/maintenance costs | 67.5  | 59.8  | 61.2  | 52.1  | 57.8  | *** |
| Desirable neighbourhood           | 65.9  | 64.8  | 63.8  | 58.3  | 61.1  |     |
| Family/friend close by            | 60.8  | 60.7  | 58.8  | 58.3  | 59.9  |     |
| Easy access to transport          | 55.3  | 52.6  | 54.6  | 50.4  | 51.4  |     |
| Do not intent to stay in house    | 8.4   | 5.0   | 7.0   | 7.2   | 3.5   |     |

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Factors important to the middle-aged respondents to continue to live in their own home were related to a number of socio-demographic characteristics. The factors of ‘good health’ and ‘family/friend close by’ were more important to respondents who were widowed and living alone than other household composition types (results not shown).<sup>169</sup> Also, a ‘desirable neighbourhood’ was more likely to be reported by respondents who were living with a partner.<sup>170</sup>

Significant associations were also found between a number of the factors impacting on continued living in their own home and education and income levels (results not shown). Having ‘reasonable rent/maintenance costs’ and a ‘desirable neighbourhood’ was more important to respondents with a lower education level than those with a higher education level.<sup>171</sup> With respect to income, having ‘good health’ was more important to those with a higher personal income.<sup>172</sup>

Finally, having ‘good health’ was more important for respondents who had an excellent or very good self-rated health than those who had a poor or fair self-rated health (results not shown).<sup>173</sup>

### 5.3.5 Access to Amenities

The respondents were asked if they experienced difficulty getting to amenities such as shops or public transport. 15% of them reported that they had difficulty getting to amenities, but this was not associated with age, gender, income level or living arrangements. Respondents who had a fair or poor self-rated health had more difficulties with amenities than those who had a very good or excellent health (see Figure 8.12).<sup>174</sup> As well, respondents with up to primary education had more difficulties getting to amenities compared with those with a university qualification (results not shown).<sup>175</sup>

<sup>169</sup>  $\chi^2 = 24.1, p < .001$  for good health, and  $\chi^2 = 14.1, p < .01$  for family/friends close by.

<sup>170</sup>  $\chi^2 = 11.8, p < .01$  for reasonable rent/maintenance costs,  $\chi^2 = 7.9, p < .05$  for desirable neighbourhood.

<sup>171</sup>  $\chi^2 = 9.0, p < .05$

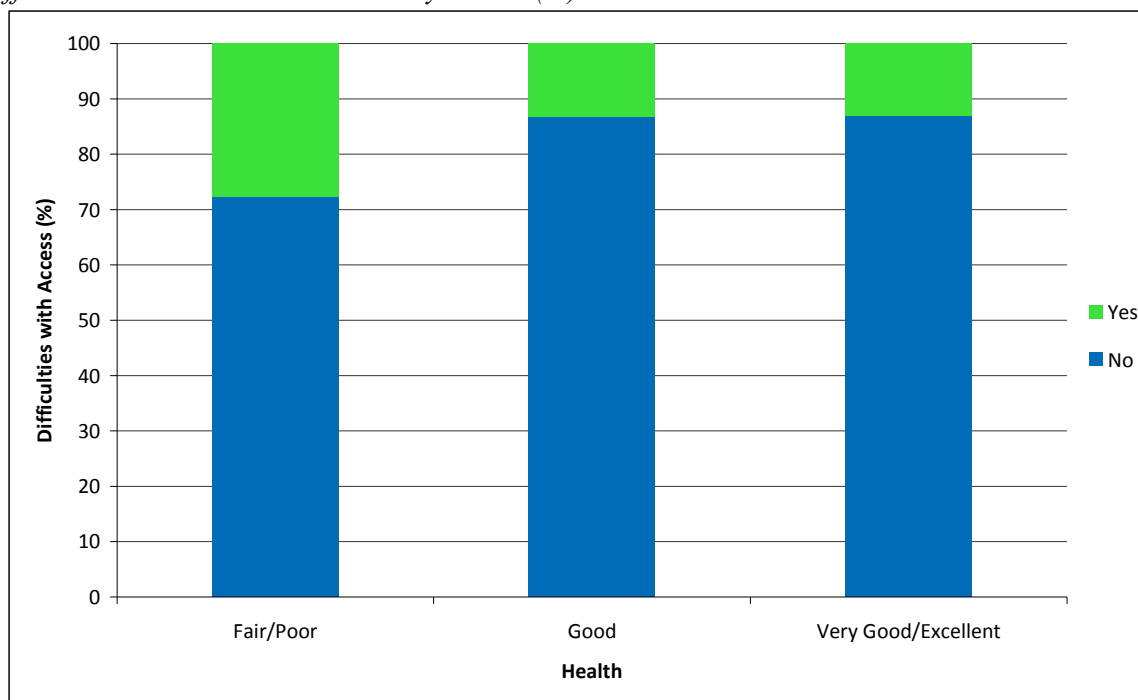
<sup>172</sup>  $\chi^2 = 17.7, p < .001$

<sup>173</sup>  $\chi^2 = 33.1, p < .001$

<sup>174</sup>  $\chi^2 = 36.6, p < .001$

<sup>175</sup>  $\chi^2 = 16.8, p < .001$

Figure 8.12  
*Difficulties with Access to Amenities by Health (%)*

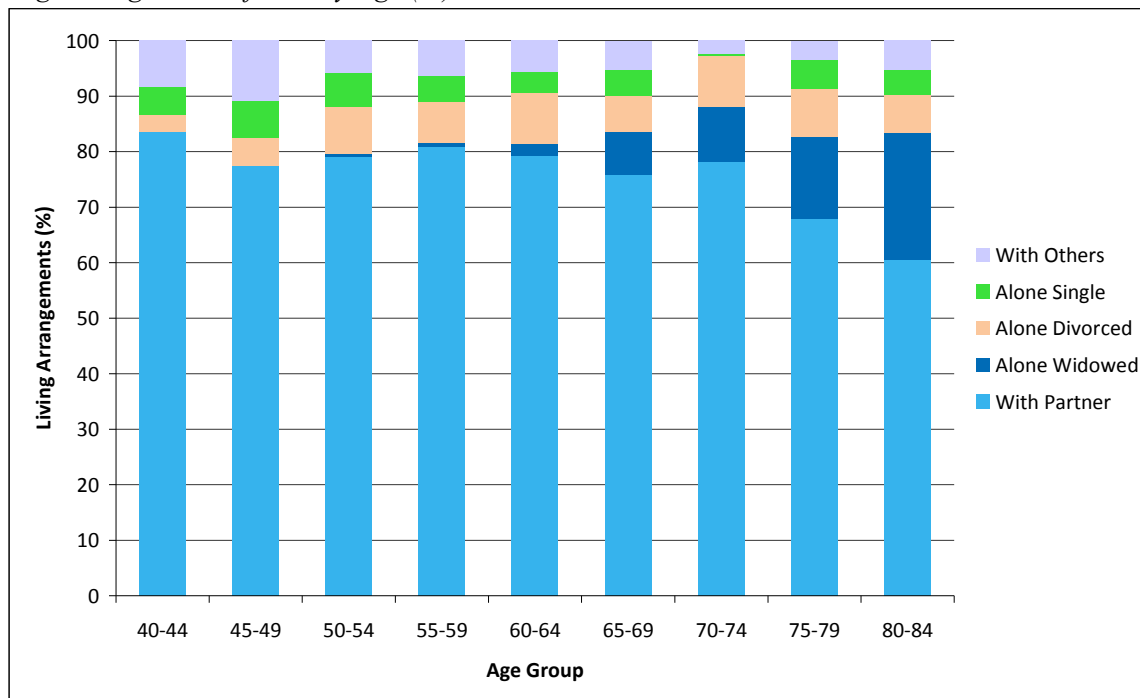


In summary, middle-aged people who had a lower education level or lower self-rated health had the most difficulties accessing amenities.

#### 5.4 *Comparison of the 40-64 year-old and the 65-84 year-old New Zealanders regarding Living Arrangements and Physical Environment*

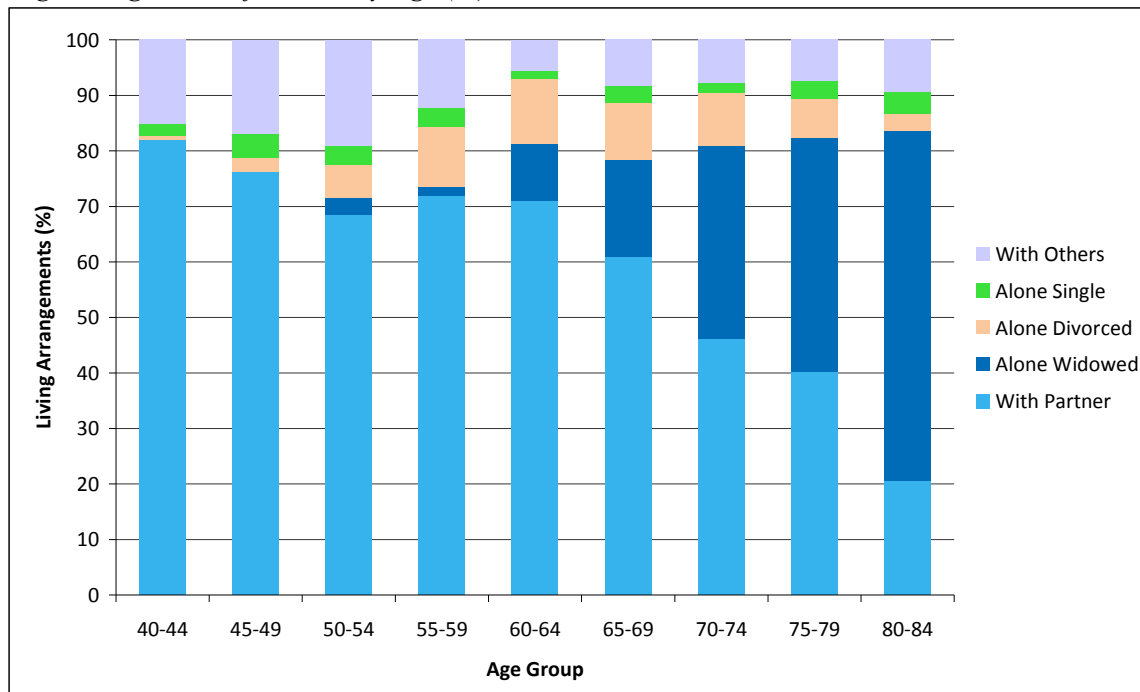
A comparison of the 40-64 year-olds with the 65-84 year age group reveals a large difference in living arrangements between these two age groups. The age structure of living arrangements differs substantially between men and women across the age span from 40 to 84, with men more likely to be living with a partner than women (see Figures 8.13 and 8.14). The proportion of men living with a partner is quite stable (at around 80%) until the age of 75 years. After 75 the proportion of men living with a partner decreases, mostly through widowhood, but even for the oldest age-group (80 to 84 years) still more than half of the men live with a partner (61%).

Figure 8.13  
*Living Arrangements of Men by Age (%)*



In contrast, the proportion of women who live with a partner decreased much faster by age than among men, particularly after the age of 65. Mainly as a result of differential mortality between men and women, women are much more likely than men to live in a one-person household in old age (70% in the 80-84 year age-group).

Figure 8.14  
*Living Arrangements of Women by Age (%)*



Differentiation in living arrangements with respect to education, income and health, was very similar for the 40-64 year-olds and 65-84 year-olds. People living with a partner generally had a higher level of education, income and health, than those living alone or with others.

The majority of both 40-64 year-olds and 65-84 year-olds lived in urban areas. Middle-aged respondents were more likely to live in rural areas (20%) than the older people (13%). In contrast, older people were more likely to live in a small town (18% compared with 15% for 40-64 year-olds).

Middle-aged respondents were somewhat less satisfied with the size of their current home than older people. More than twice as many of the middle-aged found their home to be 'too small' (16%) compared with older people (6%).

A comparison of 40-64 year-olds and 65-84 year-olds showed similar differences with respect to which factors were important to continue living in their own home. Both middle-aged and older people said that having good health either for themselves or their spouse was the most important factor that would enable them to continue to live in their own home. After health, middle-aged people said a desirable neighbourhood and reasonable rent/maintenance costs were the next most important factors, while older people said having family and friends close by and a desirable neighbourhood were the next most important.

Middle-aged people (15%) were somewhat more likely than older people (11%) to experience difficulty getting to amenities such as shops or public transport. It could be that middle-aged people, who were more likely to live in rural areas than older people, actually have less access to amenities. Another explanation could be that middle-aged people have higher expectations of access to amenities than older people.

### 5.5 *Satisfaction with Physical Environment and Wellbeing among Midlife New Zealanders*

Among the 40-64 year-olds, overall levels of satisfaction with the physical environment were high, with 95% of respondents reporting that they were satisfied with the physical environment inside and outside the house (and 5% reporting they were dissatisfied with their physical environment). There was no difference in satisfaction with the physical environment by age, gender or education level. However, living arrangements and income level were significantly associated with satisfaction with the physical environment.

Middle-aged people who lived with a partner had higher satisfaction with their physical environment than those who lived alone or with others (results not shown).<sup>176</sup> Moreover, those who had a higher personal income had higher satisfaction with their physical environment than those with a lower personal income (results not shown). Figure 8.15 shows that the reported satisfaction with the physical environment was significantly associated with health.<sup>177</sup> Middle-aged people who rated their health as very good or excellent had higher satisfaction with their physical environment than those who rated their health as fair or poor.

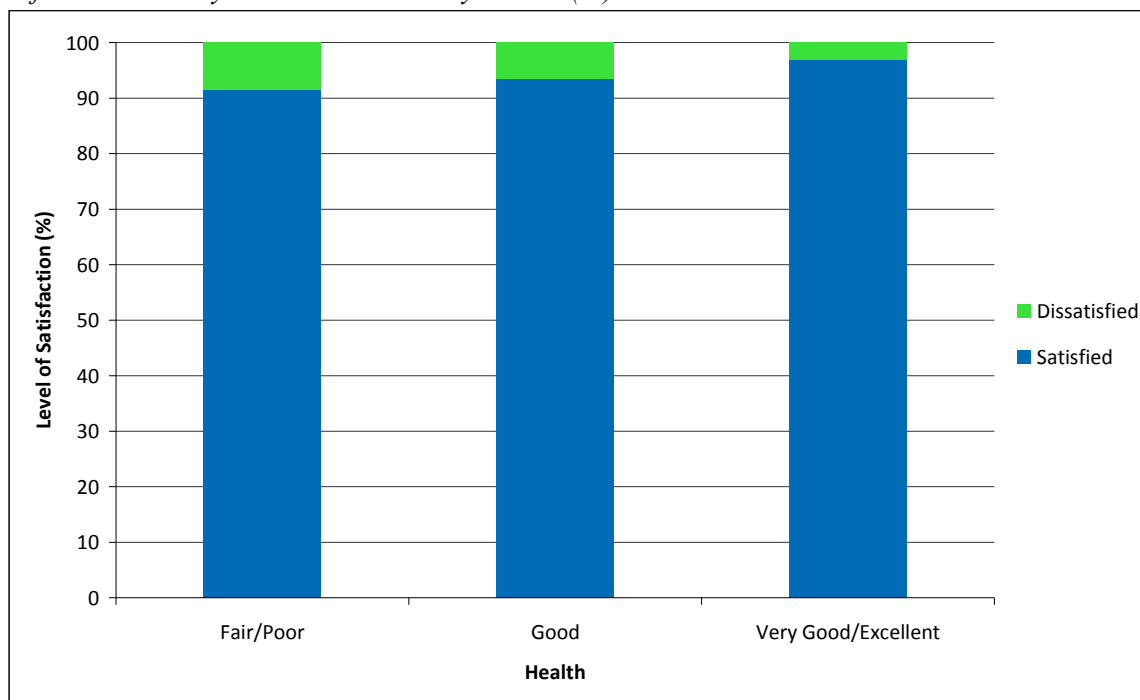
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<sup>176</sup>  $\chi^2 = 144.3, p < .001$

<sup>177</sup>  $\chi^2 = 18.9, p < .001$

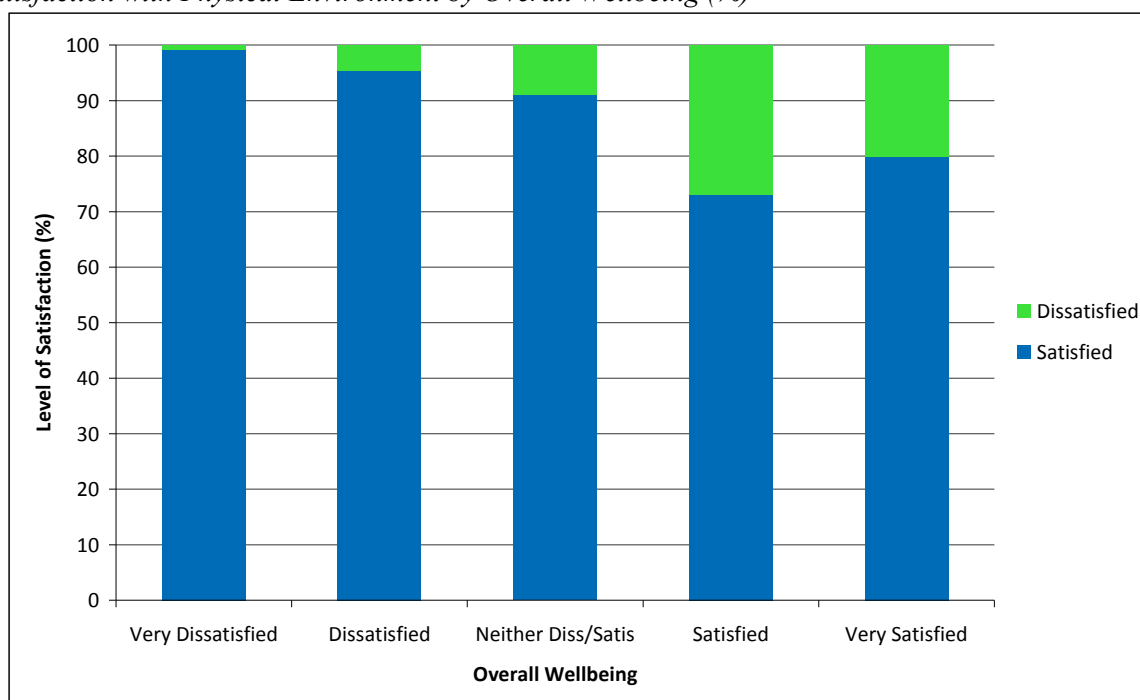


Figure 8.15  
*Satisfaction with Physical Environment by Health (%)*



Satisfaction with the physical environment inside and outside the home was significantly related to overall wellbeing (see Figure 8.16). Those with higher satisfaction with their physical environment had demonstrably higher overall wellbeing.<sup>178</sup>

Figure 8.16  
*Satisfaction with Physical Environment by Overall Wellbeing (%)*



<sup>178</sup>  $\chi^2 = 122.3, p < .001$

### 5.6 *Living Arrangements, Physical Environment, and Overall Wellbeing*

A significant association was found between overall wellbeing and the living arrangements of middle-aged people (results not shown).<sup>179</sup> As was expected, middle-aged people living with a partner had higher overall wellbeing compared with those who were living alone or in a household with others. Within the category of people living alone, middle-aged people who were divorced or separated had a lower overall wellbeing than widows, widowers and those who were single. Interestingly, no association was found between living in a shared household and overall wellbeing. The differences found between those living alone, in contrast to those living with their partners, support the idea that the cohesive functions of the nuclear family (and partnership bonds in particular) provide a sense of identity and emotional support and therefore improve overall wellbeing (Gove, Style & Hughes, 1990).

Looking at the relationship between overall wellbeing and factors which may impact on the physical environment, the results show no significant association between overall wellbeing and urban/rural location. However, respondents who reported a desirable neighbourhood, family and friends living close by, and good health as important to enable them to continue living in their own home were more satisfied with their overall wellbeing than those who did not report these factors as being important.<sup>180</sup>

A significant association was also found between overall wellbeing and difficulties accessing amenities (results not shown).<sup>181</sup> Respondents who reported having difficulty accessing amenities were more dissatisfied with their overall wellbeing than those who did not report difficulties accessing amenities.

Finally, overall wellbeing was significantly associated with satisfaction with household size. Respondents who found their home to be the right size were more satisfied with their overall wellbeing than those who found their home to be too small or too large (results not shown).<sup>182</sup>

## 6. Conclusion

The aim of this chapter was to provide a descriptive overview of midlife (or middle-aged) people's living arrangements, identify a number of aspects of the social and physical environment which may impact on middle-aged people's ability to live in a community, and examine the extent to which living arrangements and physical environment influence the wellbeing of middle-aged people.

Not surprisingly, the living arrangements of middle-aged people change as they age. Living with a partner becomes less common, especially at later ages, with the loss of a partner much more pronounced among women than men. Mainly as a result of differential mortality between men and women, but also the lower rate of remarriage, women are much more likely than men to live alone in old age.

Although only a small proportion of the middle-aged people lived in a household with others, middle-aged people who shared their household with others did so primarily with their adult children. There were important gender differences. Middle-aged men were more likely to have a partner in the shared household than middle-aged women.

Good health was clearly perceived as the most important factor which enabled middle-aged people to continue to live in their own home. Those who had low self-rated health had more difficulties with getting to shops or public transport. Thus health appears to have an impact on people feeling

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<sup>179</sup>  $\chi^2 = 144.3, p < .001$

<sup>180</sup>  $\chi^2 = 11.1, p < .05$  for desirable neighbourhood,  $\chi^2 = 21.9, p < .001$  for family/friends close by, and  $\chi^2 = 18.8, p < .001$  for good health.

<sup>181</sup>  $\chi^2 = 16.4, p < .01$

<sup>182</sup>  $\chi^2 = 53.1, p < .001$

comfortable to stay on in their own home. A significant proportion of the middle-aged New Zealanders in this study (just over half) considered living in a desirable neighbourhood and reasonable housing costs were necessary for them to stay in their current housing. A slightly smaller proportion rated having family and friends close by, and easy access to transport, as important, reflecting the importance of social networks.

There was a clear pattern for both middle-aged and older people who lived with a partner to have a higher level of wellbeing than those who had previously lived with a partner but now lived alone or with others. This group in turn had greater wellbeing than both middle-aged and older people who were single and lived alone. The benefits of living with a partner can be that the relationship not only fulfils basic and universal human needs (Rook, 1984), but also provides companionship and freedom from loneliness (Peters & Liefbroer, 1997). In addition, people living with a partner usually have more economic resources than those in other households (Hughes & Waite, 2002).

Another important association with wellbeing for both age groups was the negative association with difficulties accessing amenities. This suggests that this is an important factor to focus on for middle-aged as well as older people being able to remain living in their own home and in their community. The findings indicate, in line with other New Zealand research (Field et al., 2004), that young families are more likely than older people to live outside of cities, further away from community services. Field et al (2004) suggest that this may reflect either a conscious choice to be away from noise or for safety reasons or that there is a lack of affordable housing. More attention should be given to the extent to which housing is sited near to community services and the awareness of people to this when choosing housing.

Overall, the results reflected more homogeneous living arrangements, but much greater diversity in family structures among middle-aged people in comparison to the older people, with the majority of both middle-aged men and women predominantly living with a partner and children. However, the results also showed significant differences between middle-aged and older men and women. Women were much more likely than men to live alone in old age. The findings demonstrate, in line with international research, the positive impact of living with a partner in relation to the wellbeing of both middle-aged and older New Zealanders.

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# Chapter 9: Safety among Midlife New Zealanders

Peter King

## 1. Introduction

The enjoyment of personal safety by not being subject to violence, crime, dangerous or unhealthy surroundings, or other threats to bodily integrity, is a core element of the New Zealand Government Positive Ageing Strategy (Dalziel, 2001). Goal 5 of that strategy states that older people should feel safe and secure and be able to 'age in place'. Safety is included in wellbeing and quality of life measures, such as the WHO Quality of Life Index, and forms one of the ten dimensions of the Ministry of Social Development's Social Wellbeing measure (Ministry of Social Development, 2008).

Bodily integrity and safety are identified as key capabilities by researchers working in the capabilities based wellbeing paradigm and who have suggested items that should be included in lists of capabilities to be used in studies of capabilities based wellbeing. Some of these researchers, such as Nussbaum (2005) and Robeyns (2003) have included bodily integrity and safety in lists of capabilities that they have identified on philosophical and theoretical grounds. Others, such as Clark and Gough (2005) have also identified safety as a capability related factor on the basis of surveys and interviews they carried out with people to investigate perceptions of wellbeing. These latter empirical investigations were carried out to build on and evaluate the theory-based capability categories originally nominated by Nussbaum and Sen (1993). From a capabilities-based perspective, personal safety and bodily integrity are basic requirements for people to be able to freely exercise their capabilities and apply them to the achievement of their wellbeing.

While this chapter is concerned with findings from a survey of midlife New Zealanders rather than 'older' New Zealanders, it is part of a study focused on wellbeing in an ageing society. The midlife sample in the study is of particular interest as the next generation of older people. It is hoped that knowledge about the safety dimension of wellbeing of the midlife cohort will help to identify the issues that will affect the safety of older people in the future, and inform appropriate and effective responses to those issues.

In this chapter preliminary findings are presented, based on the analysis of responses to the safety-related survey questions and any relationships with age, gender, marital/partnership status, living arrangements, rural/urban location, and personal income. Findings on the relationship of safety with health, subjective wellbeing or general satisfaction with life, loneliness, and leisure and recreation are also included. Different patterns of responses to the 'objective', experience-based questions from those to the 'subjective', perception-based question are identified and discussed.

## 2. Theoretical Background

From the perspective of common sense, one would probably suppose that the experience and perception of personal safety, i.e. bodily and psychological integrity and freedom from victimisation, are positively related to wellbeing. This postulated positive relationship has also been proposed (without evidence) by some researchers in the field, as documented by Michalos and Zumbo (2000). However, studies that have investigated relationships between fear of crime and/or perceptions of personal safety and subjective wellbeing, quality of life or happiness have found no clear relationship (Michalos & Zumbo, 2000; Silverman & Kennedy, 1985), while Hartnagel (1979) found a negative association between feelings of safety in the neighbourhoods of Edmonton residents and their satisfaction with their safety. Silverman and Kennedy (1985:10) suggest that the expected positive relationship between feeling safe and subjective wellbeing is countered by the possibility that people

who are more satisfied with their lives have more to lose if they are victimised, and therefore express more fear of crime.

As the relationship between experiences and perceptions of safety and subjective evaluations of wellbeing is unclear, the selection of safety as a dimension of wellbeing might be open to question. Safety has not been a feature of other major studies of ageing such as Old Age and Autonomy - The role of Service Systems and Intergenerational Solidarity (OASIS), The European Study on Ageing Well (ESAW), The Survey of Health Ageing and Retirement in Europe (SHARE), and The English Longitudinal Study of Ageing (ELSA ).

However, from a capabilities-based wellbeing perspective, the inclusion of safety is certainly justified, because it represents what Sen calls an “instrumental freedom”. In Sen’s framework instrumental freedoms “contribute, directly or indirectly, to the overall freedom that people have to live the way they would like to live” (Sen, 1999:38). Sen proposes a non-exhaustive list of five types of instrumental freedoms: political freedoms, economic facilities, social opportunities, transparency guarantees, and protective security (ibid.). Of these, protective security aligns most clearly with the dimension of safety included in this study. From a capabilities perspective, then, the absence of an expected positive association between feeling safe and life satisfaction does not disqualify safety from consideration as a dimension of wellbeing. As an instrumental freedom, safety (both objective and subjective) represents one condition necessary for people to apply their capabilities to the achievement of their wellbeing. Thus the inclusion of ‘safety’ is justified on both theoretical (Nussbaum, 2005; Robeyns, 2003) and empirical (Clark & Gough, 2005) grounds in this study.

From a capabilities-based theoretical perspective, people’s safety is most usefully examined in relation to their engagement in events and activities, and with other people. As an example of this, the debilitating effects of the fear of crime are identified by Adams and Serpe (2000) in their Los Angeles based study, which identified its impact upon people’s life satisfaction by lowering their sense of control over their lives. The same study found that social integration (measured by attachment to neighbourhood and neighbours) was associated with reduced feelings of vulnerability.

In this chapter, the relationship between safety and participation in leisure and recreation provides a useful avenue for assessing the status of safety as a capability-related variable. The tension between the experience and the perception of safety is also of interest from a capabilities perspective. While the objective, experience-based, measures indicate high levels of safety for people in midlife, the subjective, perception-based, measure is found to be related significantly to the other variables included in this analysis. Whether or not people are, on the whole, objectively safe, their subjective perception of whether or not they are safe has a bearing on their ability to enjoy life.

### **3. Method**

#### *3.1 Data*

The current survey of midlife people (40-64 year-olds) canvassed respondents’ experiences and perceptions of their personal safety in their homes and neighbourhoods. The data used to measure ‘safety wellbeing’ were derived from six questions<sup>183</sup> that covered respondents’ perceptions of their personal safety within their homes and neighbourhoods. Responses to the six questions were combined to form three variables covering whether: 1. respondents felt safe or not in and around their own homes, and, if they did not, what events or experiences had caused them to feel unsafe; 2. during the previous 12 months, respondents had been in situations within their neighbourhoods when they felt their safety had been threatened, and if so, how often this had happened; and 3. respondents felt safe in their neighbourhoods in the evenings or at night while walking alone. The first two variables measured respondents’ experiences of safety or victimisation in a more objective sense, whereas the third variable measured perceptions of safety in a subjective sense.

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<sup>183</sup> Questions 275 to 280 in the questionnaire for 45 to 64 year-olds.

In addition, the questionnaire included one question in which respondents were asked to indicate whether or not they were satisfied with their situation in relation to each of the ten dimensions of wellbeing included in this study. Responses to the part of that question concerned with their satisfaction with their personal safety have been included in the 'Subjective wellbeing or general satisfaction with life' section of this chapter.

Because the numbers of respondents in the various 'not safe' categories were very small, further analysis beyond the overall frequencies that follow in the first four tables was carried out with the responses dichotomised into 'safe' and 'not safe' categories in order to achieve adequate data cell sizes. The three areas of safety were next examined in relation to the following variables: age, gender, marital/partnership status, household type, rural/urban location, personal income, overall subjective wellbeing satisfaction with personal safety, loneliness, and leisure and recreation. The tables summarising these results do not include non-responses, don't knows, or refusals, and, as these responses vary from question to question, the totals in the tables vary from table to table. The percentages presented are therefore percentages of the valid responses.

The marital/partnership status variable was also restructured for this analysis by collapsing the 34 marital/partnership status categories contained in the database to the five categories shown in Table 9.7. The category 'never married or in a relationship' already exists as a distinct category in the database. The category 'in a relationship' is new and represents 15 categories in the database that encompass a range of opposite sex and same sex relationships of varying degrees of formality. The two new categories 'widowed and no longer in a relationship' and 'no longer in a relationship but not widowed' have been kept separate in order to allow discrimination between becoming single again through the death of a partner, on the one hand, and through separation or divorce, on the other. The last category includes people who are 'in a relationship but not living in the same home'.

Living arrangements were defined in terms of household type, based on eight categories of household composition: couple only, couple with other persons, couples with children, couples with children and other persons, one parent with children, one parent with children and other persons, multi-person households of related people, and single person households.

Involvement in clubs and organisations was measured on a three point scale (0 = No involvement, 1 = Involvement in last month, and 2 = Organisation or leadership role). Participation in entertainment and recreation in the last month was measured as No or Yes. Simple involvement and participation scores were calculated by summing each participant's responses across the club/organisation and entertainment/recreation categories, respectively. Higher involvement scores reflected greater breadth and/or depth of involvement with clubs and organisations, while higher participation scores reflected greater breadth of participation only.

### 3.2 *Analysis*

Bivariate relationships are examined between each of the three areas of safety (i.e., safety at home, safety in the neighbourhood, and safety in the neighbourhood at night) and the following variables: age, gender, marital/partnership status, living arrangements, rural/urban location, personal income, health, subjective wellbeing or general satisfaction with life, loneliness, and leisure and recreation. The first seven are basic demographic and personal status variables. The next two variables (subjective wellbeing and loneliness) are subjective measures of respondents' general satisfaction with their lives, and their emotional and social connection with other people. The last variable is an objective measure of engagement in leisure and recreation, and is examined in order to identify any relationship between the experience and/or perception of safety and the likelihood of engaging in and contributing to leisure and recreation activities in the wider community. Statistical tests used and their levels of significance are shown as either footnotes or table notes.

All analyses in this chapter use weighted data, with sampling weights calculated and applied to adjust for gender and age.



## 4. Results and Findings

### 4.1 Overall Frequencies

Overall, experiences of safety are very high among midlife New Zealanders. As Table 9.1 shows, nearly 98 percent of the 40-64 year-old respondents felt safe around their own homes without having experienced any threats to their safety. No cases of intra-household threats to safety were reported, with only neighbours and other non-household members being identified as sources of threatening behaviour. The very low rates of victimisation reported within the home are surprising and might be an artefact of the way the questions were constructed. For example, people were first asked if they felt safe in their home, and if they said 'Yes' the next question, which asked in what ways their safety had been threatened, was skipped and not asked. It is possible that, on balance, people felt safe in their homes, even when they were not always safe. If the questions had been constructed in such a way that all respondents were given the option of identifying instances of victimisation, it is possible that more would have done so. Less than one percent of respondents had been recent victims of crime.

Table 9.1  
*Feelings and Experience of Safety in the Home (%)*

| Safety at Home  |       |
|---|-------|
| Feel safe around their home                                       | 97.9  |
| Don't feel safe, threatening behaviour of non-household members   | 1.2   |
| Don't feel safe, recent victim of crime                           | 0.3   |
| Don't feel safe, can't lock their house securely and other reason | 0.1   |
| Don't feel safe, other reason or don't know in what way           | 0.5   |
| Total   | 100%  |
| N =   | 1,922 |

Table 9.2 shows similarly high perceptions of safety within neighbourhoods, with nearly 90 percent of those who answered feeling that their safety had not been threatened at all in the previous 12 months. Of the roughly ten percent who had been threatened during the period about half had been threatened once and the remainder several times or more.

Table 9.2  
*Feelings and Experience of Safety in the Neighbourhood (%)*

| Safety in the Neighbourhood                     |       |
|---|-------|
| Don't feel safety was threatened                | 89.9  |
| Safety was threatened once                      | 4.9   |
| Safety was threatened several times             | 4.1   |
| Safety was threatened many times                | 0.9   |
| Safety was threatened, but don't know how often | 0.2   |
| Total   | 100%  |
| N =   | 1,934 |

In Table 9.3, the results presented in the earlier tables are combined to obtain an overall prevalence of threats to safety or victimisation. The resulting prevalence of victimisation is 10.2 percent, which is

almost the same as the prevalence of 10.3 percent for people aged 40 to 59 reported by the 2001 New Zealand National Survey of Crime Victims<sup>184</sup> (Morris & Reilly, 2003).<sup>185</sup>

Table 9.3

*Feelings and Experience of Safety in the Home and Neighbourhood Combined (%)*

| Feeling of Safety in the Home or Neighbourhood Combined |       |
|---|-------|
| Feel safe   | 89.8  |
| Feel unsafe in one of the home or the neighbourhood     | 8.4   |
| Feel unsafe in both the home or the neighbourhood       | 1.8   |
| Total   | 100%  |
| N=  | 1,920 |

As far as feelings of safety in the neighbourhood at night are concerned, Table 9.4 reveals lower perceptions of safety, with only 77.6 percent of those who answered feeling safe when walking alone at night in their neighbourhood. 13 percent of the respondents said that they never walked alone at night.

Overall, the proportions shown in Table 9.4 are consistent with results from the 2001 New Zealand National Survey of Crime Victims (Morris & Reilly, 2003) which found that 74.2 percent<sup>186</sup> of people aged 40 to 59 felt either very safe or fairly safe about walking alone in their neighbourhood after dark, compared to 77.6 percent in this 2007 survey of those aged 40 to 64 years.

Table 9.4

*Feelings of Safety in their Neighbourhood in the Evenings or at Night when Walking Alone (%)*

| Safety in the Neighbourhood at Night       |       |
|--|-------|
| Yes  | 77.6  |
| No   | 9.5   |
| Never walk alone in neighbourhood at night | 12.9  |
| Total                                      | 100%  |
| N =  | 1,923 |

The higher assessments of safety reported in Table 9.1, 9.2 and 9.3 are based on the more objective indicators of respondents' actual experiences, compared to the lower assessments reported in Table 9.4 that are based on more subjective evaluations. These differences illustrate the disjuncture between subjective fear of crime or victimisation and the objective risk of it happening, as noted earlier in this chapter.

## 4.2 Age

For the midlife group, age was not significantly related to the perception or experience of safety in either the home or the neighbourhood. This is consistent with Australian research that identified similarly high levels of feelings of safety in the home (and neighbourhood) with no difference across age groups (Quine & Morrell, 2008).

## 4.3 Gender

Significant gender-based differences were found for all three areas of safety (i.e., safety at home, safety in the neighbourhood, and safety in the neighbourhood at night), with women less likely than men to feel safe in their neighbourhoods at night, as shown in Table 9.5, and more likely than men to

<sup>184</sup> Despite its title, the survey of crime victims was a survey of the general population and was thus able to develop incidence and prevalence rates.

<sup>185</sup> Directly comparable figures were not given in the report of the 2006 survey (Mayhew & Reilly, 2007).

<sup>186</sup> Table A9.3b, page 272 (Morris & Reilly, 2003).

have had their safety threatened in their homes<sup>187</sup> and neighbourhoods.<sup>188</sup> This differs from the situation for people aged 65 to 84, for whom gender was significantly associated with the perception of safety in the neighbourhood at night only. Whether middle-aged women's comparatively higher risk of threats to safety will carry through into older age and distinguish their generation from the present older generation is uncertain and could be of concern.

Table 9.5

*Feelings of Safety in the Neighbourhood at Night by Gender (%)*

| Feelings of Safety in the Neighbourhood at Night | Gender |        |       |
|--|--------|--------|-------|
|  | Male   | Female | Total |
| Feel safe  | 90.1   | 69.3   | 79.5  |
| Do not feel safe/Never walk alone at night       | 9.9    | 30.7   | 20.5  |
| Total  | 100.0  | 100.0  | 100.0 |
| N=   | 944    | 981    | 1,925 |

Note: Chi-square (1) = 128.243,  $p < .001$ . Phi = .258,  $p < .001$ .

The differences between men and women were more pronounced for the more subjective evaluation of safety in the neighbourhood at night (Table 9.5) than for both experience of safety in the home and neighbourhood. For example, as shown in Table 9.6, the proportions of men and women who experienced safety in their homes and neighbourhoods were very similar, whereas men were clearly more likely to report feeling safe in their neighbourhoods at night than were women. Nonetheless, women were less likely than men to experience safety in their homes and neighbourhoods, and this is consistent with other research which identifies higher rates of victimisation for women than for men (e.g. Morris & Reilly, 2003). The lower perception of feeling safe at night for women than men is also consistent with other research (Mayhew & Reilly, 2007, Morris & Reilly, 2003). Women's lower experience and perception of safety poses a greater threat to their freedom than is the case for men, and represents an important focus for any policy aimed at enhancing wellbeing.

Table 9.6

*Safety in Various Locations by Gender (%)*

| Safety in the home and neighbourhood    | Gender |        |       |
|---|--------|--------|-------|
|   | Male   | Female | Total |
| Safe in the home                        | 98.8   | 97.0   | 97.9  |
| Safe in the neighbourhood               | 91.6   | 88.4   | 90.0  |
| Feel safe in the neighbourhood at night | 90.1   | 69.3   | 79.5  |

#### 4.4 Marital/Partnership Status

People's experience and perception of safety in all three areas of safety varied significantly across marital/partnership status categories.<sup>189</sup> This is unlike the situation for people aged 65 to 84, for whom marital/partnership status was only significantly associated with perception of safety in the neighbourhood at night.

Table 9.7 shows that those who were widowed and no longer in a relationship, and those in a relationship but living apart, were almost equally less likely to feel safe in their neighbourhoods at night than other people (at 64.7 and 65.6 percent, respectively). Interestingly, those in a relationship and those who had never married or been in a relationship were almost equally likely to feel safe, at 82.0 and 81.0 percent respectively. Those who were no longer in a relationship but not widowed (in other words divorced or separated) were in between, at 74.7 percent.

<sup>187</sup> Chi-square (1) = 7.618,  $p < .01$ . Cramer's V = .063,  $p < .01$ .

<sup>188</sup> Chi-square (1) = 5.293,  $p < .05$ . Cramer's V = .052,  $p < .05$ .

<sup>189</sup> See Methods section, 3.1, for details of category construction.

Table 9.7

*Feelings of Safety in the Neighbourhood at Night by Marital/Partnership Status (%)*

| Feelings of safety in the neighbourhood at night | Marital/Partnership Status         |                   |         |   |                                    | Total |
|--|------------------------------------|-------------------|---------|---|------------------------------------|-------|
|  | Never married or in a relationship | In a relationship | Widowed | No longer in a relationship but not widowed | In a relationship but living apart |       |
| Feel safe  | 82.0                               | 81.0              | 64.7    | 74.7  | 65.6                               | 79.5  |
| Do not feel safe/<br>Never walk alone at night   | 18.0                               | 19.0              | 35.3    | 25.3  | 34.4                               | 20.5  |
| Total  | 100                                | 100               | 100     | 100   | 100                                | 100   |
| N=   | 89                                 | 1465              | 51      | 269   | 32                                 | 1906  |

Note: Chi-square (4) = 16.825,  $p < .01$ . Cramer's V = .094,  $p < .01$ .

The pattern of differences identified above suggests that those living without a partner, after having lived with one, feel less safe than those who either still live with their partner or who have never lived with one. Women's perceptions of safety were lower than men's, which might account for the lower perceptions of safety for those who were widowed, as the majority (78.4 percent) of those were women. However, gender cannot account for the almost equally low perception of safety among those in a relationship but living apart, because men and women are quite closely matched in that category, with 47 percent men and 53 percent women.

The disjuncture between experience and perception of safety is again highlighted in Table 9.8, which shows that those who were widowed and no longer in a relationship, of whom over 78 percent were women, had both the lowest perception of their safety in their neighbourhoods at night and the highest rates of feeling safe in their homes and neighbourhoods through not having experienced threats or victimisation.

Table 9.8

*Feelings and Experience of Safety in Various Locations by Marital/Partnership Status (%)*

| Feel Safe:                | Marital/Partnership Status         |                   |   |   |                                    | Total |
|---------------------------|------------------------------------|-------------------|---|---|------------------------------------|-------|
|                           | Never married or in a relationship | In a relationship | Widowed and no longer in a relationship | No longer in a relationship but not widowed | In a relationship but living apart |       |
| In the home               | 97.8                               | 98.1              | 100.0                                   | 97.4  | 90.3                               | 97.9  |
| In neighbourhood          | 90.1                               | 90.8              | 94.1                                    | 84.8  | 87.5                               | 89.9  |
| In neighbourhood at night | 82.0                               | 81.0              | 64.7                                    | 74.7  | 65.6                               | 79.5  |

#### 4.5 Living Arrangements

No statistically significant relationships were found between household type and either experience of safety in the home or perception of safety in the neighbourhood at night.

There were significant differences in terms of the experience of safety in the neighbourhood for different living arrangements.<sup>190</sup> Overall, 89.9 percent of respondents said their safety had not been threatened, whereas only 57.9 percent of one parent households with children and other persons said this was the case. In general, households containing 'other persons' had a lower experience of safety

<sup>190</sup> Chi-square (7) = 37.639,  $p < .001$ . Cramer's V = .140,  $p < .001$ .

than households containing only ‘related people’ such as couples, parents and their children. For example, 83.0 percent of households containing ‘other persons’ had not had their safety threatened, compared to 89.4 percent of households containing ‘related people’.<sup>191,192</sup>

#### 4.6 Rural/Urban Location

No statistically significant relationships were found between rural/urban location and experience of safety in the neighbourhood.

In terms of experience of safety in the home and perception of safety in the neighbourhood at night, those living in rural areas were significantly<sup>193</sup> more likely to both experience safety and feel safe than others, while those living on the outskirts of a city were the least likely to either experience safety or feel safe.<sup>194</sup> These differences between urban and rural areas are consistent with findings from other research into victimisation in New Zealand (Mayhew & Reilly, 2007; Morris & Reilly, 2003). Similar differences have also been found in the United States (Adams & Serpe, 2000) and the United Kingdom (O’Mahony & Quinn, 1999). Although these latter might not be exactly comparable with New Zealand results due to different definitions of rural and urban, they seem to point in the same direction.

#### 4.7 Personal Income

Significant relationships were found between personal income and experience of safety in the home and the neighbourhood, and perception of safety in the neighbourhood at night. However, as Table 9.9 shows, the only clear trend is for income and feeling safe in the neighbourhood at night for which the proportions feeling safe increase from 70.1 percent to 88.4 percent as income increases

The positive relationship between income and perceptions of safety (indicated by feeling safe in the neighbourhood at night) is consistent with research that has found a similar relationship between levels of feeling unsafe and deprivation in New Zealand (Mayhew & Reilly, 2007),<sup>195</sup> and the United Kingdom (Pantazis, 2000), and with socioeconomic status in the United Kingdom (Koffman, 1996) and The United States (James & Graycar, 2000). However, previous New Zealand research (Morris & Reilly, 2003) using the New Zealand Socioeconomic Index of Occupational Status (NZSEI) (Davis, et al., 1997) is less clear about this relationship.

Table 9.9

*Feelings and Experience of Safety in Various Locations by Personal Income (%)*

| Feel safe                                | Personal Income brackets |                       |                       |                       |               | Total |
|--|--------------------------|-----------------------|-----------------------|-----------------------|---------------|-------|
|  | \$0-<br>\$15,000         | \$15,001-<br>\$20,000 | \$20,001-<br>\$30,000 | \$30,001-<br>\$60,000 | \$60,001<br>+ |       |
| In the home <sup>196</sup>               | 97.3                     | 95.0                  | 98.9                  | 96.1                  | 100.0         | 97.8  |
| In neighbourhood <sup>197</sup>          | 86.1                     | 84.3                  | 91.1                  | 88.7                  | 92.6          | 89.5  |
| In Neighbourhood at night <sup>198</sup> | 70.1                     | 75.5                  | 76.5                  | 81.5                  | 88.4          | 80.9  |

#### 4.8 Health

Self-reported health status information was obtained using the SF-12 instrument. This provided three measures: global self-reported health rated on a five point scale from excellent to poor, a physical health scale, and a mental health scale. Global self-reported health was significantly and positively

<sup>191</sup> Chi-square (1) = 6.280,  $p=.012$ . Phi =  $-.077$ ,  $p=.012$ .

<sup>192</sup> A similar difference was found for feelings of safety in the neighbourhood at night but it was not statistically significant.

<sup>193</sup> Chi-square (3) = 8.213,  $p<.05$ . Cramer’s V =  $.065$ ,  $p<.05$ .

<sup>194</sup> Chi-square (3) = 11.391,  $p=.01$ . Cramer’s V =  $.077$ ,  $p=.01$ .

<sup>195</sup> Using the area based New Zealand Index of Deprivation (NZDep) (Salmond, Crampton & Sutton, 1998) as a proxy individual measure of respondent deprivation.

<sup>196</sup> Chi-square (4) = 21.467,  $p<.001$ . Cramer’s V =  $.121$ ,  $p<.001$ .

<sup>197</sup> Chi-square (4) = 11.166,  $p<.05$ . Cramer’s V =  $.087$ ,  $p<.05$ .

<sup>198</sup> Chi-square (4) = 37.544,  $p<.001$ . Cramer’s V =  $.159$ ,  $p<.001$ .

associated with the perception of safety in the neighbourhood at night,<sup>199</sup> but not significantly associated with the experience of safety either in the home or in the neighbourhood. Physical health was significantly and positively associated with perception of safety in the neighbourhood at night<sup>200</sup> and experience of safety in the neighbourhood,<sup>201</sup> but not experience of safety in the home. Mental health was significantly and positively associated with experiencing safety in the neighbourhood<sup>202</sup> and in the home,<sup>203</sup> but not with perception of safety in the neighbourhood at night. The lack of association between mental health and feeling safe in the neighbourhood at night is surprising because it might have been expected to be more closely associated with such a subjective evaluation than physical health was shown to be. However it is consistent with the results from the survey of people aged 65 to 84 (King, 2009). It is possible that an association with mental health is obscured by the perception of being safe in the neighbourhood at night being due to not going out at night in some cases.

#### 4.9 *Subjective Wellbeing or General Satisfaction with Life*

Respondents' subjective wellbeing or general satisfaction with life was measured on a five point scale ranging from very satisfied to very dissatisfied. Significant positive associations were found between general satisfaction with life and all three areas of safety.

The presence of a significant relationship between the perception of safety and subjective wellbeing for the midlife group contrasts with the absence of one for the older (65-84) group (see King, 2009). The divergent results between the two studies are consistent with the mixed results reported in other studies, as noted in the Theory section of this chapter.

General satisfaction was also measured across each of the ten dimensions of wellbeing covered in this study. For each dimension, respondents were asked whether they were either satisfied or dissatisfied with it in the context of their lives. For the 'satisfaction with personal safety' dimension, satisfaction was very high at 96.2 percent. Satisfaction with personal safety was positively associated with subjective wellbeing or general satisfaction with life.<sup>204</sup>

In Table 9.10, responses to the question about satisfaction with personal safety are cross tabulated with each of the three safety dimensions. Relationships between the categories 'satisfied' and 'dissatisfied' about personal safety are significantly related to experiencing safety around the home<sup>205</sup> and neighbourhood,<sup>206</sup> and perception of safety in the neighbourhood at night.<sup>207</sup> Unsurprisingly, those who were dissatisfied with their personal safety were also less likely to experience safety around their homes or in their neighbourhoods, or to feel safe in their neighbourhoods at night than were those who were satisfied with their personal safety.

Despite that pattern, many who were dissatisfied with their personal safety did, nonetheless, experience safety or feel safe. For example, 78.3 percent of those who said they were dissatisfied with their personal safety did experience safety in their homes; 54.9 percent of them experienced safety around their neighbourhood; and 50.7 percent felt safe in their neighbourhoods at night. The difference between the home and the neighbourhood suggests that people's subjective evaluations of their personal safety are focused more on the environment outside the home than within the home, and that the greatest source of perceived threats to personal safety are from outside the home.

<sup>199</sup> Chi-square (4) = 23.306,  $p < .001$ . Cramer's V = .110,  $p < .001$ .

<sup>200</sup>  $U = 280889$ ,  $p < .001$ .

<sup>201</sup>  $U = 153526.00$ ,  $p < .01$ .

<sup>202</sup>  $U = 142492.00$ ,  $p < .001$ .

<sup>203</sup>  $U = 29501.50$ ,  $p < .05$ .

<sup>204</sup> Chi-square (4) = 17.049,  $p < .001$ . Cramer's V = .094,  $p < .01$ .

<sup>205</sup> Chi-square (1) = 138.356,  $p < .001$ . Phi = .270,  $p < .001$ .

<sup>206</sup> Chi-square (1) = 100.605,  $p < .001$ . Phi = .229,  $p < .001$ .

<sup>207</sup> Chi-square (1) = 38.861,  $p < .001$ . Phi = .143,  $p < .001$ .

Table 9.10

*Feelings of Safety in Various Locations by Satisfaction with Personal Safety (%)*

| Feelings of Safety            |  | Satisfaction with Personal Safety |              |       |
|-------------------------------|--|-----------------------------------|--------------|-------|
|                               |  | Satisfied                         | Dissatisfied | Total |
| Around the home               | Feel safe around home                      | 98.7                              | 78.3         | 98.0  |
|                               | Do not feel safe around home               | 1.3                               | 21.7         | 2.0   |
|                               | Total                                      | 100.0                             | 100.0        | 100.0 |
|                               | N=   | 1835                              | 69           | 1904  |
| In the neighbourhood          | Safety not threatened                      | 91.3                              | 54.9         | 90.0  |
|                               | Safety was threatened                      | 8.7                               | 45.1         | 10.0  |
|                               | Total                                      | 100.0                             | 100.0        | 100.0 |
|                               | N=   | 1847                              | 71           | 1918  |
| In the neighbourhood at night | Feel Safe                                  | 81.0                              | 50.7         | 79.8  |
|                               | Do not feel safe/Never walk alone at night | 19.0                              | 49.3         | 20.2  |
|                               | Total                                      | 100.0                             | 100.0        | 100.0 |
|                               | N=   | 1838                              | 71           | 1909  |

*4.10 Loneliness*

Loneliness was measured using the De Jong Gierveld Loneliness Scale (de Jong Gierveld & van Tilburg, 2006). This scale measures overall loneliness on a seven point scale, with four point subscales that measure emotional loneliness and social loneliness, respectively. Higher scale numbers indicate higher levels of loneliness. “Emotional loneliness is the lack of a specific, intimate relationship, while social loneliness is a lack of social integration and embeddedness.” (van Tilburg et al., 2004:170)

Overall loneliness was negatively associated with experience of safety in the home<sup>208</sup> and neighbourhood,<sup>209</sup> and perception of safety in the neighbourhood at night.<sup>210</sup>

Emotional loneliness was significantly and negatively associated with experience of safety in the home<sup>211</sup> and neighbourhood,<sup>212</sup> and perception of safety in the neighbourhood at night,<sup>213</sup> while social loneliness was only significantly associated, negatively, with experience of safety in the neighbourhood.<sup>214</sup>

Of particular interest for this research is the negative relationship between the experience of safety in the neighbourhood and social loneliness. As Table 9.11 shows, those whose safety has not been threatened are likely to be less rather than more lonely socially, as they constitute nearly 92 percent of those with a zero social loneliness score and about 85 percent of those with the highest (3) social loneliness score. Conversely, the prevalence of safety having been threatened increases as social (and emotional) loneliness increase.

While the relationship between loneliness and fear of victimisation or fear for personal safety has been examined in other research (e.g., Donder, Verte & Messelis, 2005; Acierno et al., 2004), the relationship between loneliness and experiencing victimisation is less well examined. While it is possible that the isolation associated with loneliness could be associated with increased risk of being victimised, it is also possible that the relationship is in the other direction in that being victimised leads to social and emotional withdrawal along with the experience of loneliness.

<sup>208</sup> Chi-square (6) = 32.108,  $p < .001$ . Cramer's V = .129,  $p < .001$ .

<sup>209</sup> Chi-square (6) = 26.841,  $p < .001$ . Cramer's V = .118,  $p < .001$ .

<sup>210</sup> Chi-square (6) = 21.717,  $p < .01$ . Cramer's V = .106,  $p < .01$ .

<sup>211</sup> Chi-square (3) = 11.401,  $p < .05$ . Cramer's V = .078,  $p < .05$ .

<sup>212</sup> Chi-square (3) = 12.466,  $p < .01$ . Cramer's V = .081,  $p < .01$ .

<sup>213</sup> Chi-square (3) = 24.999,  $p < .001$ . Cramer's V = .115,  $p < .001$ .

<sup>214</sup> Chi-square (3) = 12.235,  $p < .01$ . Cramer's V = .081,  $p < .01$ .

Table 9.11  
*Experience of Safety in the Neighbourhood by Level of Social Loneliness (%)*

| Experience of Safety in the Neighbourhood | Social Loneliness Scores |       |       |       | Total |
|---|--------------------------|-------|-------|-------|-------|
|   | 0                        | 1     | 2     | 3     |       |
| Safety not threatened                     | 91.8                     | 90.8  | 88.4  | 84.7  | 90.2  |
| Safety was threatened                     | 8.2                      | 9.2   | 11.6  | 15.3  | 9.8   |
| Total                                     | 100.0                    | 100.0 | 100.0 | 100.0 | 100.0 |
| N=  | 1002                     | 391   | 258   | 235   | 1886  |

Note: Chi-square (3) = 12.235,  $p < .01$ . Cramer's V = .081,  $p < .01$ .

#### 4.11 Leisure and Recreation

Relationships between the experience and perception of safety and participation in leisure and recreation activities were examined to assess the status of safety as a capabilities-related variable. Does being safe and feeling safe increase the likelihood of participation in the wider community?

In two sets of questions, respondents were asked to indicate their degree of involvement in a range of clubs and community based organisations, and their participation in a range of entertainment and recreation activities.

No significant relationships were found between either involvement or participation in leisure and recreation and any of the safety dimensions, except for participation in leisure and recreation and feelings of safety around the neighbourhood at night,<sup>215</sup> which indicates that those who feel safe tend to participate in more entertainment and recreation activities than those who do not feel safe in their neighbourhoods at night. The feeling of being unsafe at night appears to be at least a partial barrier to participation in entertainment and recreation. More detailed analysis will need to be carried out to learn whether different types of leisure and recreation activities are related to safety in different ways.

## 5. Conclusion

### 5.1 Summary of Findings

This analysis of safety using data from the 2008 survey of New Zealand midlife residents (aged 40 to 64) has found that overall objective experiences of safety are very high, both in the home and the neighbourhood, with 98.2 percent not experiencing threats to their safety around their homes and 93.4 percent not experiencing threats to their safety in their neighbourhoods. However, subjective perception of safety, measured with reference to feeling safe in the neighbourhood at night, is lower, with 77.6 percent feeling safe in their neighbourhoods at night.

Significant, but not strong,<sup>216</sup> relationships identified in this analysis are summarised below:

Objective experience of safety around the home was found to be:

- lower for women than men
- lowest for those in a relationship but living apart than for other partnership categories
- highest in rural areas and lowest on the outskirts of cities
- positively associated with mental health
- positively associated with subjective wellbeing and satisfaction with personal safety
- inversely associated with emotional loneliness.

<sup>215</sup>  $U = 320253.5$ ,  $p < .01$ .

<sup>216</sup> Cramer's V and Phi coefficients are all below 0.2 with the exception of the relationship between gender and feelings of safety in the neighbourhood at night.



Objective experience of safety in the neighbourhood was found to be:

- lower for women than for men
- lowest for those no longer in a relationship but not widowed than for other partnership categories
- lowest for one parent households
- positively associated with mental and physical health
- positively associated with subjective wellbeing and satisfaction with personal safety.
- inversely associated with emotional and social loneliness.

Subjective perception of safety, represented by feelings of safety in the neighbourhood at night, was found to be:

- more likely to be felt by men than by women
- significantly lower for those widowed and those in a relationship but living apart than for other marital/partnership status types
- highest in rural areas and lowest on the outskirts of cities
- positively associated with personal income
- positively associated with physical health and global self-assessed health
- positively associated with general subjective wellbeing and its personal safety component
- inversely associated with overall loneliness and emotional loneliness
- positively associated with participation in leisure and recreation activities.

The results show quite different patterns of responses to the more ‘objective’, experience-based, questions from those to the more ‘subjective’, perception-based question. These differences are consistent with other research that has found no necessary link between the subjective fear of crime or victimisation and the objective risk of it happening<sup>217</sup> (e.g., Thomas & Hyman, 1977; White, 2000; Morris & Reilly, 2003; Powell & Wahidin, 2007). The strongly positive experiences of personal safety contrast with the sensational media accounts of victimisation. At the same time, the lower subjective perception of safety perhaps reflects the influence of that same negative media representation.

Significant gender-based differences were found for all three areas of safety, with women less likely than men to feel safe in their neighbourhoods at night and more likely than men to have had their safety threatened in their homes and neighbourhoods. While the differences between men and women were more pronounced for the more subjective evaluation of safety in the neighbourhood at night than for both experience of safety in the home and neighbourhood, women were still less likely than men to experience safety in their homes and neighbourhoods. The threat to women’s freedom posed by their lower experience and perception of safety represents an important focus for any policy aimed at enhancing their wellbeing.

This analysis suggests that the use of a purely objective measure could lead to the conclusion that safety was not a serious concern requiring attention, while masking the existence of subjective concerns that people might have about their safety – justified or not – that impair their capacity to age positively. The use of both levels of measurement makes it possible to obtain a balanced view of the issues involved in people’s safety. Such a balanced view can support the development of responses to people’s safety-related subjective needs that are consistent with both the nature of the safety-related conditions they face in their homes and communities and their integration in those communities throughout their lives.

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<sup>217</sup>Also of relevance here is the distinction observed in other research between people’s perceptions of their own safety and their perceptions of the safety of others (Quine & Morrell, 2008:72; Abramson & Silverstein, 2004; Ranzijn, Howells & Wagstaff, 2002).

## 5.2 Comparison of the Midlife and Older Generation Surveys

In comparison with the findings for the survey of people aged 65 to 84, the midlife survey revealed a greater number of statistically significant associations in connection with the experience of safety in the home and in the neighbourhood. These associations indicate that the midlife population is more diverse in its perception and experience of safety than the older population.. For the midlife population, differences in gender, health status, marital/partnership status, household type, and loneliness have greater relevance to being safe in their homes and neighbourhoods than is the case for the present generation of older people.

An important difference between the midlife and older cohorts was that the association between gender and all three areas of safety that was found for the midlife group was not found for people aged 65 to 84, for whom gender was only significantly associated with the perception of safety in the neighbourhood at night. Whether middle-aged women's comparatively higher risk of threats to safety will carry through into older age and distinguish their generation from the present older generation is uncertain and should be an area of policy concern.

In the absence of comparable data from the period when the present generation of people aged 65 to 84 were in the 40 to 64 age group, it is difficult to establish the extent to which their safety-related characteristics might have changed during the intervening twenty years. One possibility is that the present characteristics of the older group are much the same as their midlife characteristics, and that the characteristics of the present midlife group will be maintained into older age in the same way. If that is the case, the safety-related future of today's midlifers will be less favourable than it is for the present older generation. Another possibility is that people experience fewer threats to their safety as they grow older, in which case the future safety of today's midlife generation might be expected to be much the same as that of the present older generation.

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# Chapter 10: Social Connectedness and Wellbeing among Midlife New Zealanders

Peggy Koopman-Boyden and Suzan van der Pas

## 1. Introduction

Making social connections could be seen as the most important aspect of human survival and community continuity - ‘No man is an island’ is a basic tenet of living. Essentially social connectedness refers to *the relationships people have with others*. It is also a process requiring a considerable amount of time, energy and commitment.

In New Zealand, the importance of social connectedness is clear from the Ministry of Social Development’s statement in the annual Social Reports that,

“Social connectedness is integral to wellbeing. People are defined by their social roles, whether as partners, parents, children, friends, caregivers, teammates, staff or employers, or a myriad of other roles. Relationships give people support, happiness, contentment and a sense they belong and have a role to play in society...Social connectedness also refers to people joining together to achieve shared goals that benefit each other and society as a whole” (Ministry of Social Development, 2008:110).

International research has established that social connectedness is beneficial to quality of life or wellbeing (Helliwell, 2003; Antonucci, 1990; Berkman et al., 2000). However, relatively little is known about the level of social connectedness among middle-aged people in New Zealand, how social connections are established or maintained, and how they contribute to our general wellbeing.

Given the importance of social connectedness, this chapter considers the question of the nature of social connectedness among middle-aged New Zealanders and, most critically, the extent of the association of their social connectedness with their wellbeing.

To do this, the chapter considers three indicators of social connectedness: social contacts, support exchange and participation in community organisations. With respect to social contact, the chapter examines the number, frequency and type of social contacts of middle-aged people, and the extent of association with age, gender, education and income level, living arrangements, health, and urbanisation. It also considers the support exchange between middle-aged people and their (grand)parents focussing on both instrumental and emotional support. A second aim of the chapter is to examine the extent to which middle-aged people participate in community organisations (as a member and as a leader) as a particular form of social connectedness. The chapter concludes by describing the association between social connectedness and wellbeing for the respondents, and by comparing the social connectedness of middle-aged adults with older adults (those 65-84 year-olds as reported in Koopman-Boyden & van der Pas, 2009).

It should be noted that in a separate chapter, Leisure and Recreation, the indicator ‘participation in leisure and recreation’ is used. This could also be seen as another measure of social connectedness. Some of the discussion in that chapter is therefore relevant to this one.

## 2. Social Connectedness and Wellbeing of Middle-aged People

Older, rather than middle-aged, people have largely been the focus of international research into social connectedness and wellbeing. There has been a long tradition of assuming that reduced social connectedness in old age is accompanied by a loss in emotionally meaningful social experiences and reduced social competency. Reduced social contacts have been seen as arising from barriers to social

access (Maddox, 1963), role loss (Rosow, 1974) and a decreasing potential for reciprocal relationships due to the increasing fragility of older people (Bengtson & Dowd, 1980-81).

More recently, and in a more positive vein, it has been suggested that reduced social connectedness may reflect the means by which older people strengthen emotional ties and optimise their social environments (Carstensen, 1992). According to this theory, reduced social connectedness reflects a gradual life-long process, with such reduction being carefully limited to carefully delineated social contacts and social involvement. The model of “selective optimisation with compensation” has been used in research with older people when exploring their degree of social connectedness. It has yet to be considered in detail for other life periods, including the middle-aged, where it is assumed that people will maintain (and even expand) their level and intensity of social contacts.

International research also shows that over an individual’s life course, there are times when there is more or less contact and support exchanged within their social network (Takashi, 2005). For example, both parents and adult children may devote less time to intergenerational relationships during the ‘empty nest’ phase, following the child’s transition from youth to adulthood and leaving home (Aquilino, 1997; van der Pas, 2006). For the parents, this stage is typically during their middle-age years, i.e. 40+ years.

While many of these theoretical explanations of changing social relationships have been developed with older people, social connectedness and wellbeing of the middle-aged stands at the crossroads of theoretical explanation – between ‘attachment’ theories focussing on the social connectedness of children and young adults with their family, especially the mother figure<sup>218</sup> (Bowlby, 1969/1982), and, at the other end of the life continuum, theories suggesting positive, adaptive reasons for the changing networks of older people (‘social network’ theories).

The ‘convoy’ theory may be particularly suitable for the middle-aged, where an individual is surrounded by a ‘convoy’ of persons with whom they develop close emotional relationships from early childhood to old age (Kahn & Antonucci, 1980). Although some people may stay socially connected within an individual’s convoy throughout the life course, others may disappear or re-enter the convoy at later life phases, depending on individual needs and goals. For example, social connections (or relationships) may end due to transitions such as divorce or changing jobs, while at the same time, other relationships will be maintained or may enter the network as a result of (re)marriage, job transition or becoming a parent or grandparent. The social convoy model implies that continued selection of social relationships is adaptive, as it determines the access that individuals have to social resources that can satisfy their social needs. Thus the dynamics of social relationships lie in both the situational and personal characteristics of people, of whatever age (van der Pas, van Tilburg & Knipscheer, 2007).

While such theories may explain the relationship between social connectedness and wellbeing, the extent of the social connectedness of middle-aged people through their social contacts can be affected in a number of ways, including through increased emotional and instrumental support, geographical proximity, co-residence, and an active work role, as outlined below.

The importance of the geographical proximity of social contacts is recognised in various empirical studies (Pillemer et al., 2000). For example, intergenerational contact is greatly affected by geographic distance between households, with more distant children interacting less often with their (middle-aged or approaching middle-aged) parents (Lawton, Silverstein, & Bengtson, 1994).

On the other hand, the extent of social connectedness has also been affected by the increase in co-residence of parents in their middle years with their adult children. Since the 1980s, there has been an increase in those who have ‘fled the nest’ returning home to live with their parents in the so-called

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<sup>218</sup> Although an attachment hierarchy has more recently been discussed (Cassidy, 1999).

'cluttered nest' (see next section for the New Zealand situation). American research has shown that this is partly because these adult children are members of a large cohort that has experienced difficulty in finding employment, along with relatively high rates of marital delay, marital dissolution, and unmarried motherhood (Glick & Lin, 1986). It is also associated with higher levels of interaction and more interchange of support than with those living nearby (van der Pas, van Tilburg & Knipscheer, 2007; White & Rogers, 1997), along with greater opportunities for reciprocal learning and revising generational expectations (Strom, 2005). As well, according to a 1988 National Survey of Families and Households in the USA, "the majority of parents were highly satisfied with the co-resident living arrangement and described mostly positive relationships with their adult children' (Aquilino & Supple, 1991:13).

Other research has noted how the level and type of social contacts (and social support) are associated with differences in wellbeing. For example, partners and children are the most important people within the social networks of older people, and contribute more to the older person's quality of life than do support from friends. Relationships with a partner or children are characterised by more social contact and the exchange of both emotional support and instrumental support (Broese van Groenou & van Tilburg, 1996; Yeung & Fung, 2007; van Tilburg & van der Pas, 2008).

Some studies show people who have intimate companions in later life (usually their spouse) have higher levels of life satisfaction (Payne, Mowen & Montoro-Rodriguez, 2006), because they feel valued, needed, and a sense of belonging, all of which are indicators of social support. Powdthavee reported from the British Household Panel Survey,<sup>219</sup> where the married and cohabiting individuals (including same-sex partnerships) were selected from those being interviewed between 1996-2007 (7,468 females and 7,464 males), that "one partner's happiness significantly influenced the happiness of the other partner" to the extent that "I can't smile without you" (2009:675). However, for those who do not value family relationships, social contact and support from family members may not be welcome because of the perception of being dependent on them. Further to this, some studies have shown that friendship is more important than family relationships in predicting the wellbeing of older people (Fiori, Antonucci, & Cortina, 2006).

International research has also shown how social connectedness is not necessarily affected by gender. For example, in a Netherlands sample of middle-aged and older married men and women, few differences were found in the size and composition of their core networks, the provision of emotional support to and from the partner, and in the provision of instrumental support to others (Stevens & Westerhof, 2006).

The afore-mentioned studies of social connectedness, mainly among older people, have established a significant relationship between a number of variables (e.g. intimate companions, intergenerational contact) and social connectedness, measured by the extent of social contacts. However, such research may or may not be generalised to the middle-aged. For instance, do the middle-aged have more or less social contacts than older people? It has usually been assumed that the middle-aged have a greater number of contacts than the old, and this number will decline as they move into old age (and lose their contacts through death). But why the possibly greater number in the first place? And do the middle-aged have a higher level of participation in community organisations than older (or younger) people, and if so, why?

Research specifically into the middle-aged, with a sample of 45-59 year-olds from the 2000 British Household Panel Study (BHPS), has shown that, where both husband and wife are in full-time employment, there are lower odds of meeting friends or relatives (Glaser, Evandrou & Tomassini, 2006). Where husbands were heavily involved in unpaid caring work, wives tended to undertake less social and leisure activity, whereas where wives were heavily involved in paid work, husbands tended to undertake more social and leisure activities.

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<sup>219</sup> British Household Panel Survey where over 10,000 individuals have been interviewed every year since 1991

Research such as the British Household Panel Study shows the implications for the current middle-aged of the social changes surrounding them. Yet they have to be fully explored in terms of their impact on social connectedness. As a cohort, today's middle-aged have experienced many changes in the workplace and family. Organisational restructuring has removed the concept of life-long tenure, while up-skilling and changing jobs have brought upheaval in continuity of work colleagues and, on occasion, social relationships with friends and family. Simultaneous changes in personal life may have included divorce, remarriage and a blended family, along with the increasing paid work participation of women, so that work and family roles and relationships have to be managed and developed, or they are lost.

For many middle-aged people involved in multiple roles, they are simply surrounded by too many demanding relationships - dependent children still living with them, young adult children recently 'launched' and ageing parents, combined with the obligations of employment and marriage, and other kinds of relatives and friends (Waite & Harrison, 1992). Furthermore, such relationships and social connectedness may be conditional on both sides, with the emphasis being on the extent to which other people meet their present needs and help them to grow (Stanley, 2007). The positive or negative association of these relationships with their wellbeing becomes important.

Social connectedness among the middle-aged is therefore changing in an increasingly complicated social context, and it needs to be investigated against this background.

### **3. The Social Context and New Zealand Research on Social Connectedness of Middle-aged People**

New Zealand research on social connectedness and wellbeing is relatively sparse, although, within the small amount of research on middle-aged people, the interest in social connectedness is noteworthy. Historically, the level of social connectedness has been associated largely with levels of social support, especially intergenerational contact and support, along with participation in community activities.

The earliest research on social connectedness through social contact and support, investigated levels of expected social support held by 190 main caregivers of older people, as well as 249 people over 65 years (Koopman-Boyden, 1979). 88 percent of the middle-aged main caregivers expected children to assist their elderly parents, with 87 percent of these main caregivers themselves being 'children' or family members. The sample of people aged 65+ years held similar expectations, with 81 percent expecting their middle-aged children to support them, and a third (32 percent) indicating that the social contact and support they valued most was 'contact and company' (Koopman-Boyden, 1978). The expectation of social contact and social support from the middle-aged to older family members was well established in the 1970s among New Zealanders.

Much of the more recent research on social contacts in New Zealand has continued to focus on the social support that is provided, and on families in a caring relationship in particular. For example, a qualitative New Zealand study on social capital found that families are the most important connection for all family members, and that middle-aged people maintained regular contact with their older parents (Stephens, 2008).

In the Mid-Life Family Transactions Project, with a random sample of 750 New Zealanders aged 40-54 years interviewed in 1997, social support in the form of 'care' was provided to 3.8 close relatives per midlife respondent. Different levels of care were provided to these close relatives: midlife respondents "were most likely to provide care to their spouses/partners and children, and least likely to their parents-in-law and grandparents, with their parents falling somewhere in the middle" (Mitchell & Hendy, 2000:78). The degree of such social connectedness was not only frequent and intense, but also carefully directional.

As an over-riding conclusion from the Transactions Project, Hillcoat-Nalletamby and Dharmalingham (2004) noted that rather than supporting the notion of mid-lifers as being ‘sandwiched’ between competing demands, the midlife individual is engaged in providing help to *both* young and older generations. “The support needs of the older generation seem to enhance the parent-child transactions” (Hillcoat-Nalletamby & Dharmalingham, 2004:12), with the midlife individual being at the nexus of complementary rather than competing multigenerational demands. They concluded that, where grandparents supported their children, those children were, in turn, more likely to support their own children. Thus the notion of social connectedness through social support is continued through on-going inter-generational socialisation.

The possibility of greater connectedness through co-residence has also been noted in New Zealand research. A long-standing tradition in New Zealand is for children to leave home relatively young (15-24 years) to undertake work or study in larger urban areas, and ‘go flatting’ in non-related households. A review of data of household composition in 1986 and 2001 showed an increase in ‘cluttered nest’ families, to include not only young, but also mature adults, aged 25 years and over (Pool et al., 2005). For example, the percentage increase for 25+ year-old children was the highest in Auckland (58.4% increase, to a total of 11.8% of parenting households), the Bay of Plenty (49.9% increase, to 8.7% total parenting households) and Wellington (33.7% increase, to 10.7% total parenting households). Whether such co-residence in New Zealand allowed for greater social connectedness between generations, or any association with greater wellbeing has yet to be researched.

Social connectedness is one of the ten domains described in the Ministry of Social Development’s annual Social Reports and is measured by the following indicators:

- Regularity of contact with family/friends through “having them over for a meal”
- Level of trust in others
- Experience of loneliness in the last 12 months
- Contacts between secondary school students (aged 12-18 years) and their parents
- Telephone and internet access in the home (Ministry of Social Development, 2008:110-121).

With each of these indicators (except loneliness) two age-groups are considered, the 18-64 years and 65+, which does not permit any disaggregation to a 40-64 year age-group. As a result, on the first indicator, “regularity of contact with family/friends through having them over for a meal,” only the comparative figures of 71.1 percent for the 18-64 year age-group and 63.7 percent for the 65+ group are provided from the 2004 data (Ministry of Social Development, 2008). However, with respect to experiencing loneliness (in 2006), it is noted that “levels of loneliness were lower among those aged 50-64 years and 65+ (both 15 percent)” than the levels for the younger age-groups (Ministry of Social Development, 2008:118).

As well as measuring social connectedness through the level of social contact, the extent of participation in 'community organisations' can also be seen as an indication of social connectedness. New Zealand research on this, for the middle-aged, is very sparse. For example, there is no middle-aged version of reports such as the Positive Ageing Indicators Report which documents the various indicators of the quality of life of people over 65 years, including their participation in community organisation (Ministry of Social Development, 2007).

The 2007/08 Active New Zealand Survey provides information on the “club or centre involvement” of “sport, recreation and physical activity” (Sport and Recreation New Zealand, 2008). It shows that 32.9% of adults (16+ years) were members of clubs or centres for a sport or recreation activity - 30.6% for 35-49 year-olds and 31.3% for 50-64 year-olds. Compared with the total population, a higher percentage of Māori, but fewer Asian and Other adults were members of clubs or centres.



With respect to leadership in these activities, 25.3% of the adults volunteered for the roles of coach/trainer, parent/helper, referee, or administrator/secretary, with the largest number of volunteers being in the 35-49 age-group (34.8%), and 20.1% in the 50-64 age group.

While these reports on sport and recreation provide information on involvement in club and leadership activities, the degree of participation in a wider set of community organisations would be more useful as an indicator of social connectedness.

## **4. Method**

The data were collected as part of the *Enhancing Wellbeing in an Ageing Society* research programme. The sample included 1,958 New Zealand respondents (48.9 percent men and 51.1 percent women) aged between 40-64 years, who were interviewed using computer assisted telephone interviewing (see Chapter 1 for further details).

Social connectedness was measured in two general ways: social contact, and participation in community organisations.

### *4.1 Social Contact*

Social contact was used as an indicator of social connectedness and was measured by the number, frequency, and type of social contact. To obtain information on the number of social contacts, respondents were asked: “who would be the people (other than your partner/spouse) you have frequent and important contact with, for your wellbeing?” The size of the social network was determined by the number of people who were named. Of the first 14 social contacts that the respondents reported, questions were asked on the frequency and type of contact. Respondents were asked whether the frequency of contact was daily, several times a week, weekly, fortnightly, monthly, or less frequently than monthly. Respondents were also asked whether the contact was in person, by phone, letter, or email.

### *4.2 Support Exchange*

Support was measured by asking respondents who named a parent or grandparent as a social contact whether they had given help to or received help from this parent over the past 12 months. The term ‘parent’ included all those who identified as a parent, step-parent, foster parent or mother or father-in-law. The question on help *given to* or *received from* refers to both parents and grandparents, and so the term ‘(grand)parent’ is used in the results. Respondents were asked: “Have you given/received help with...And how often?”

Different types of support were differentiated, namely instrumental oriented support: work or jobs around the home, help with health needs, medication etc, transport, doing the shopping, financial help, and emotional support. Regarding the frequency of help, respondents were asked whether the given or received help was: never, frequency unspecified, once a year, several times a year, monthly, several times a month, weekly, several times a week, or daily. These responses were assigned values from 0 (never) to 8 (daily).

### *4.3 Participation in Community Organisations*

Participation in organisations, as an indicator of social connectedness, was measured by asking respondents whether they participated in a list of 13 different organisations or clubs in the month before the interview, with a response of either ‘Yes’ or ‘No’. The specified organisations or clubs were: hobby association, community or service organisation that helps people, religious or church organisation, sports club, Returned Services Association (RSA) or workingmen’s club, women’s organisation, other club/organisation, trade union, political party, school organisation, choir, drama or music society, ethnic (Māori) organisation and other ethnic organisation. The participants were also asked if they had a leadership role in any of the organisations in which they participated.

#### *4.4 Satisfaction with Contacts and Wellbeing*

Two measures of satisfaction with contacts were obtained through the dichotomous response (satisfied/dissatisfied) to the question as to whether the respondent was satisfied with their contact with family, and whether they were satisfied with their contact with other people.

The overall wellbeing of the respondents was measured by asking: “How satisfied are you with your life as a whole these days?” The response categories ranged from 1 ‘very dissatisfied’ to 5 ‘very satisfied’. The average level of overall wellbeing was 4.3 in the ‘satisfied’ to ‘very satisfied’ range (SD = .85) (see Chapter One for a discussion of the Wellbeing Scale – the World Values Survey).

#### *4.5 Other Measures*

To measure socio-demographic characteristics, gender, age, educational and income level, living arrangements, number of children, health, and level of urbanisation were examined. Five age categories were distinguished: ages 40 to 44 years, 45 to 49, 50 to 54, 55 to 59 and 60 to 64. Respondents were asked their highest completed educational qualification. The responses were recoded into four categories: up to primary education, secondary education, vocational or trade qualification, and university qualification (for further explanation, see the chapter on Education). Income was based on ‘total personal income before tax’ (in income bands) and was divided into five categories: up to \$15,000, \$15,001-20,000, \$20,001-30,000, \$30,001-40,000, and \$40,001 or more.

‘Living arrangements’ was a composite variable of partner status and household composition. Within this variable five categories were distinguished: 1) respondents living with their partner (or spouse) with or without others; (2) divorced or separated living alone; (3) widowed living alone; (4) single living alone and (5) respondents living with others, related and/or unrelated without a partner. Health was measured according to the SF-12 scale, by asking respondents to assess, on a five point scale, their own health status. Three categories of self-rated health were distinguished: poor/fair, good, and very good/excellent (see Appendix One for more details). Finally, the level of urbanisation was divided into four categories: urban areas, outskirts of a city, small town, and rural area.

#### *4.6 Procedure*

In the descriptive analyses, bivariate associations were investigated between gender, age, marital status, educational level, income, living arrangements, number of children, health, and level of urbanisation on the one hand, and the number of social contacts and participation in organisations on the other. Differences in gender, age, educational level and income, living arrangements, number of children, health, and level of urbanisation differences were also analysed for frequency and type of contact. Bivariate associations were also investigated between gender and age differences for type of relationship and instrumental and emotional support given and received. Lastly, associations were investigated between the number of social contacts, satisfaction with these social contacts, participation in organisations, and wellbeing. The analyses include frequency distributions where the differences between categorical variables were examined using chi-square tests. The data have been weighted to make the results representative of the New Zealand population aged 40 to 64 (as noted in Chapter 1).

## **5. Results**

The results section is divided into three areas: social contacts, support exchange and participation, and leadership in community organisations. With respect to social contacts, the results are presented on the number, frequency of contacts and type of contact by gender, age and other variables; and respondent satisfaction with their contact with family and others by age, gender, education, living arrangements, health and urbanisation.

Support exchange results are presented on the support given and received between respondents and their (grand)parents, in relation to gender and age. A differentiation was made between instrumental and emotional support.

With respect to participation in community organisations results are presented on the average levels of participation, leadership and type of community organisation, in relation to gender, age, educational level, income, health and satisfaction with social contacts with family/others of the respondents.

Finally, the number of social contacts, respondent satisfaction with these social contacts, and participation in organisations, are related to overall wellbeing.

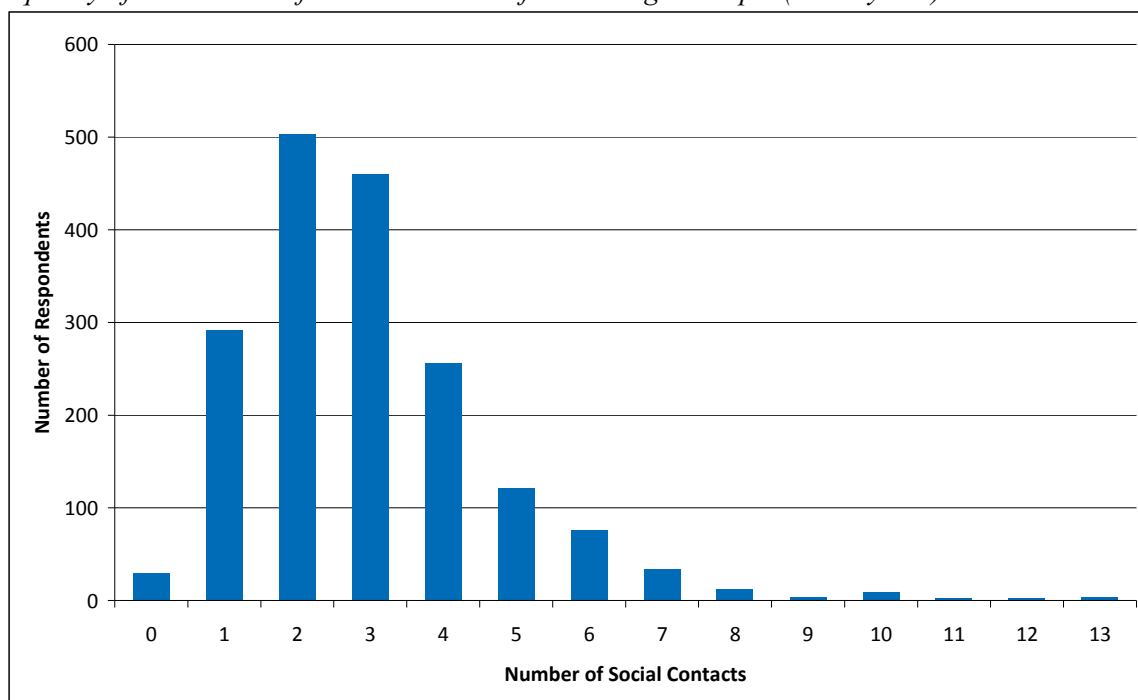
Comparisons of the results on social contacts and participation and leadership in community organisations are made between the 40-64 and 65-84 year-old age cohorts (Koopman-Boyden & van der Pas, 2009).

### 5.1 Number of Social Contacts

The 1,807 respondents who answered the question asking for their “frequent and important contacts” nominated 5,344 social contacts, which gave an average of 3 social contacts each (SD = 1.8). Using weighted data to make it representative of the New Zealand population, the mean is 2.9 (SD = 1.7). Figure 10.1 shows that 30 respondents did not nominate any social contacts at all, and 292 respondents nominated only one person. The mode was 2 social contacts.

Figure 10.1

*Frequency of the Number of Social Contacts of Middle-aged People (40-64 years)*



### 5.2 Number of Social Contact by Gender, Age, and Other Variables

Women had a significantly larger number of social contacts than men ( $t_{(1830)} = -4.74, p = .001$ ). For men the mean number of social contacts was 2.7 (SD = 1.6) and for women 3.1 (SD = 1.8).

Bivariate analyses showed no significant differences in the number of social contacts according to age category.<sup>220</sup> Those who were aged 40-44 had a mean number of social contacts of 2.8 (SD = 1.6), those 45-49 had a mean number of 2.9 (SD = 1.7), 50-54 year-olds had a mean number of 3.0 (SD =

<sup>220</sup>  $F_{(1809,4)} = 0.7, p = .59$

1.8), 55-59 year-olds had a mean number of 2.9 (SD = 1.7) and 60-64 year-olds had a mean number of 3.0 (SD = 1.9).

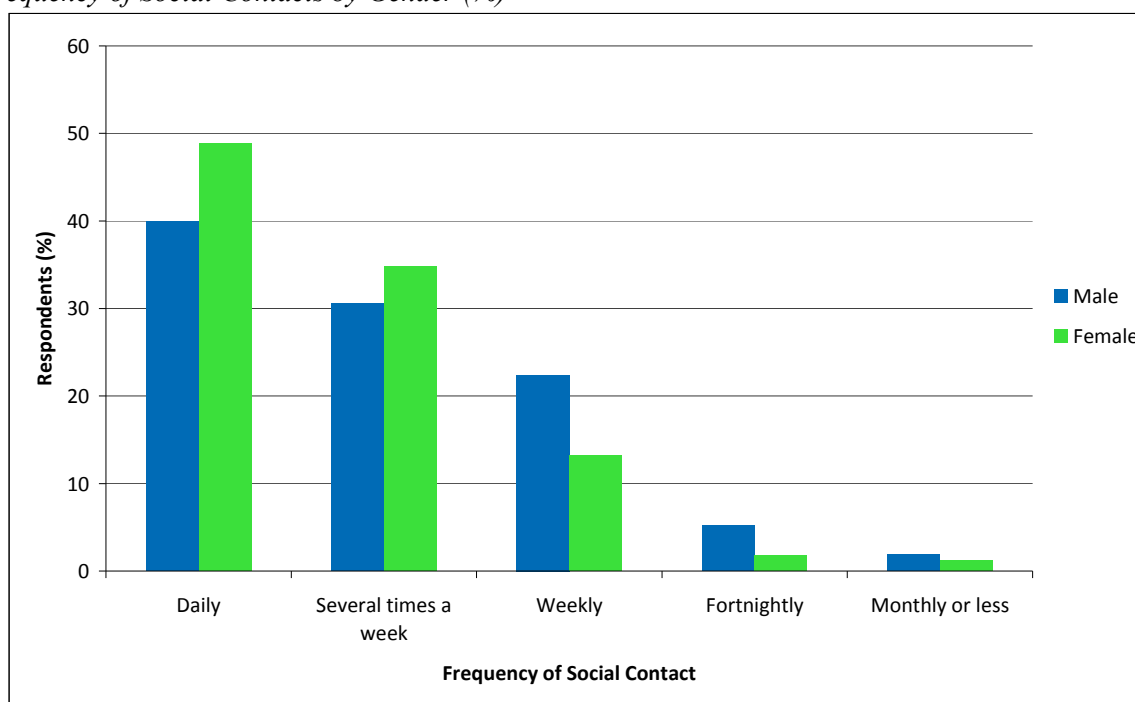
There were no significant differences in the number of social contacts of the respondents by educational level, income, living arrangements, or level of urbanisation. However, there was a statistically significant association between the number of social contacts and the number of children: respondents with more children had a higher average number of social contacts.<sup>221</sup>

### 5.3 Frequency and Type of Social Contact

Respondents reported on the frequency and type of contact they had with up to 14 people in their social networks. Such contacts did not include their spouse. 45 percent of the respondents had daily contact with one or more people in their social network, 33 percent had contact several times a week, 18 percent had contact on a weekly basis, and 3 percent had contact fortnightly. This left 2 percent who had contact monthly or less with one or more people in their social network.

There was no significant association between *frequency of contact* and different age categories. However, there was a statistically significant association with gender (see Figure 10.2).<sup>222</sup> Women had more contact on a daily basis, or several times a week, with at least one person in their social network. In contrast men had more contact on a weekly or fortnightly basis than women.

Figure 10.2  
*Frequency of Social Contacts by Gender (%)*



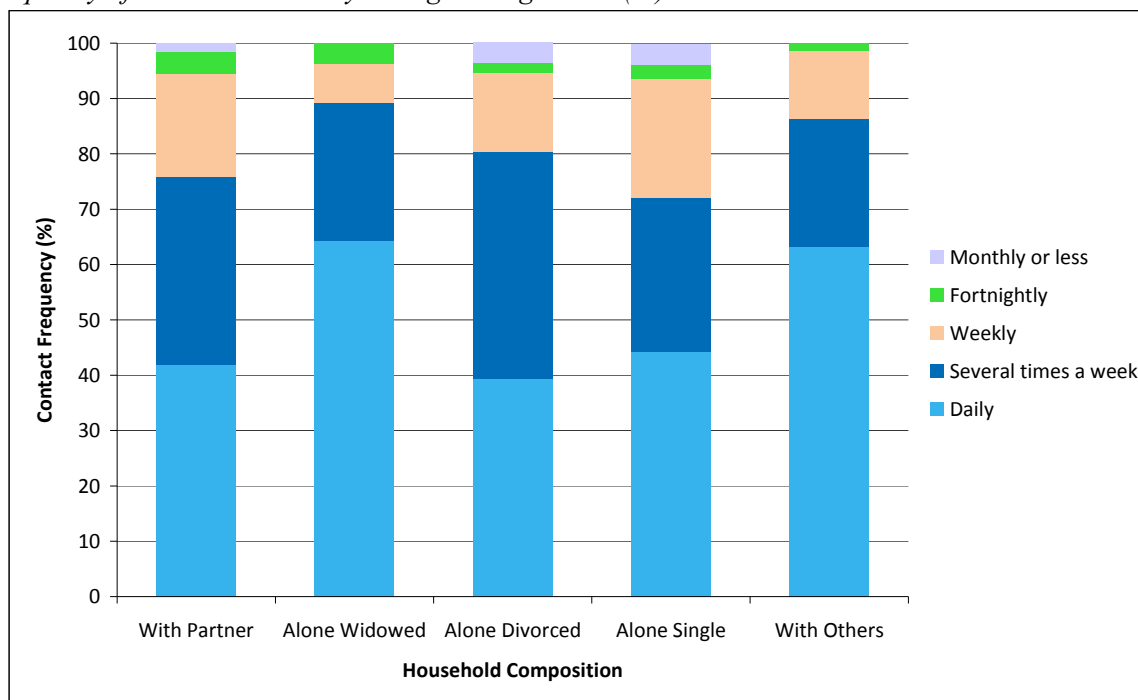
No significant association was found between frequency of contact and education, income, or level of urbanisation. However, frequency of contact was significantly associated with living arrangements (see Figure 10.3).<sup>223</sup> Widowed respondents were the most likely to have daily contact, followed by respondents living with others. Those living with a partner were less likely to have contact on a daily basis, perhaps recognising that they already had an existing daily contact. Respondents who were divorced and living alone were the least likely to have daily contact when compared with the other household composition types.

<sup>221</sup>  $F_{(1805,5)} = 21.1, p < .001$

<sup>222</sup>  $\chi^2 = 53.7, p < .001$

<sup>223</sup>  $\chi^2 = 127.9, p = .001$

Figure 10.3  
Frequency of Social Contacts by Living Arrangements (%)



Frequency of contact was also associated with self-rated health (results not shown).<sup>224</sup> Respondents who had a poor or fair self-rated health were more likely to have daily contact than those with an excellent or very good self-rated health.

Looking at the *type of contact*, middle-aged people had contact predominately in person and on the phone (41%). Another 30% had contact in person only and 20% had contact by phone only. The remaining 9% included 3% who had contact in person, by phone and email; 2% who had contact via phone and email; 3% who had multiple combinations of contact,<sup>225</sup> and 2% who did not have any contact at all.

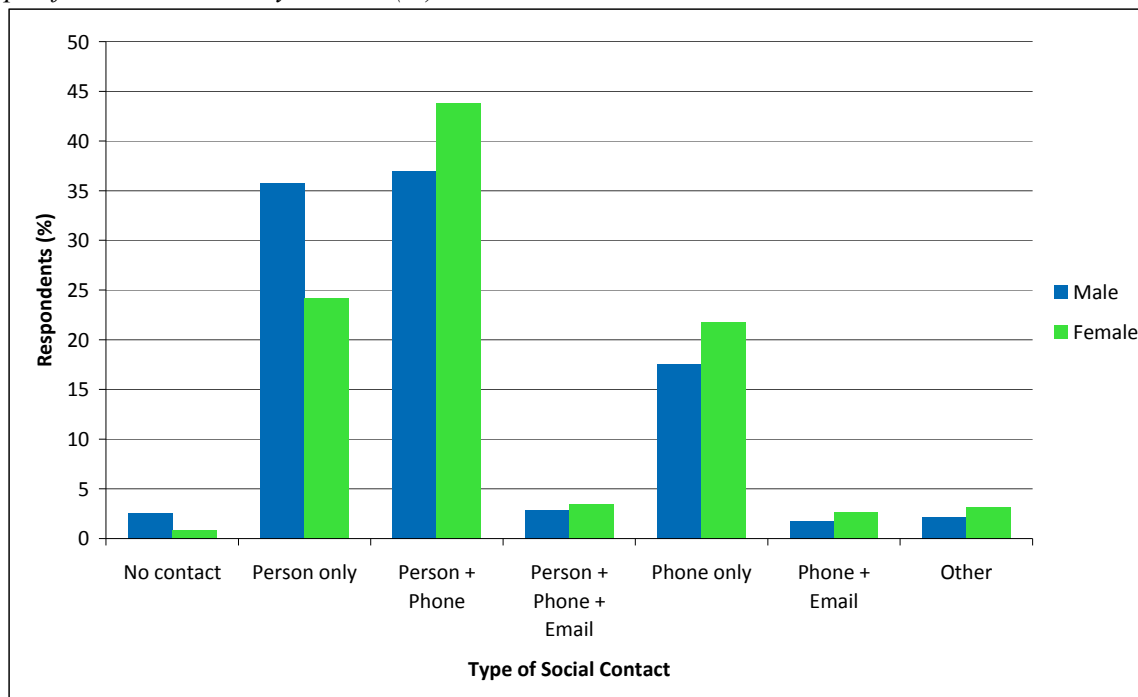
As with frequency of contact, there was no association between type of contact and different age categories. However, there was a statistically significant association with gender (see Figure 10.4).<sup>226</sup> Women more often had contact in person and by phone, while men more often had contact in person.

<sup>224</sup>  $\chi^2 = 24.4$ ,  $p = .001$

<sup>225</sup> Other combinations which gave very small numbers and were combined to form 'other' category'. These were person+letter, person+email, person+phone+letter, person+phone+letter+email, phone+letter, phone+letter+email, letter only, letter+email, and email only.

<sup>226</sup>  $\chi^2 = 44.1$ ,  $p = .001$

Figure 10.4  
*Type of Social Contacts by Gender (%)*



No significant association was found between type of contact and income, living arrangements, health or level of urbanisation. However, a statistically significant association was found between type of contact and educational level (results not shown).<sup>227</sup> Respondents with a lower educational level were more likely to have contact in person than those with a higher educational level, while those with a university qualification were more likely to have contact in person as well as phone and/or email contact. This is possibly an outcome of the more highly educated cohort having more resources and being able to use a variety of means of contact.

#### 5.4 Composition of Social Contacts

With respect to the composition of social contacts the results will be discussed of the type of relationship with whom the respondent had frequent and important contact, and also the support that was exchanged between respondents and their (grand)parents. A distinction will be made between instrumental and emotional support.

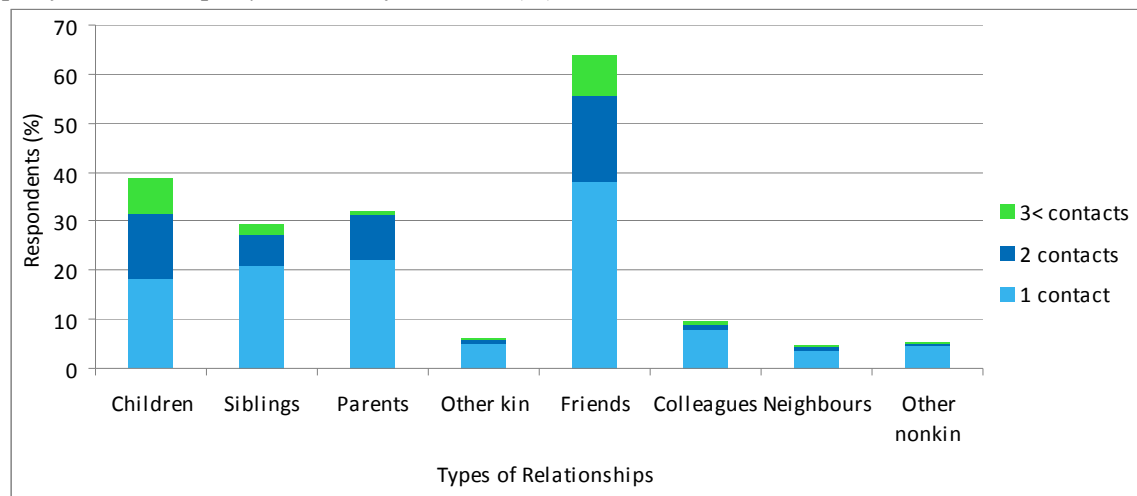
Respondents reported that they had the most frequent and important contact with their friends (64%), followed by their children<sup>228</sup> (39%) and parents<sup>229</sup> (32%) (see Figure 10.5). The least contact was with neighbours (5%).

<sup>227</sup>  $\chi^2 = 37.3$ ,  $p < .01$

<sup>228</sup> Children, sons-in-law and daughters-in-law.

<sup>229</sup> Parents and parents-in-law.

Figure 10.5

*Type of Relationships by Number of Contacts (%)*

Firstly, gender differences in the composition of social contacts were considered. Bivariate comparison revealed that men's and women's social contacts differed significantly in terms of proportions of kin: 53.3% of the men had family in their social contacts and 67.9%, of the women.<sup>230</sup>

The extent to which gender differences were observed in the numbers of relationships of a particular type within the social contacts is shown in Table 10.1. Men named fewer children, siblings and 'other' kin. Men also named fewer friends, the same number of parents, neighbours and 'other' non-kin. Women named fewer colleagues.

Table 10.1

*Mean Number of Different Types of Relationships named by Men and Women as Social Contacts*

|                 | Men | Women | $F_{(1956,1)}$ |     |
|-----------------|-----|-------|----------------|-----|
| Children        | 0.6 | 0.8   | 22.1           | *** |
| Siblings        | 0.4 | 0.4   | 6.3            | *   |
| Parents         | 0.4 | 0.4   | 2.1            |     |
| 'Other' kin     | 0.1 | 0.1   | 2.9            |     |
| Friends         | 1.0 | 1.1   | 5.0            | *   |
| Colleagues      | 0.2 | 0.1   | 20.3           | *** |
| Neighbours      | 0.1 | 0.1   | .1             |     |
| 'Other' non-kin | 0.1 | 0.1   | 1.3            |     |

\* $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Secondly, a linear increase was found with age in the proportion of kin within the social contacts.<sup>231</sup> Among middle-aged people, the proportions increase from 46% for the 40-44 year-olds to 76% for the 60-64 year-olds (data not shown).

Age differences in the numbers of different types of relationships composing the social contacts were also examined. The results are shown in Figure 10.6. Age differences in the number of children within the social contacts of middle-aged people were significant and followed a linear pattern.<sup>232</sup> Across the five age categories, a significant increase is seen in the number of other kin.<sup>233</sup> A decrease is found in

<sup>230</sup>  $t_{(1956)} = -6.7$

<sup>231</sup>  $F_{(1956,4)} = 22.9, p < .001$

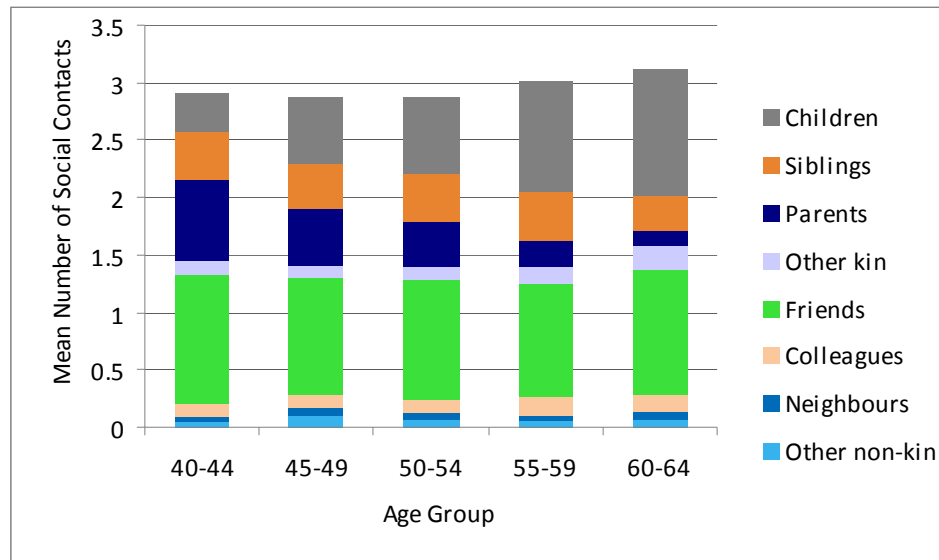
<sup>232</sup>  $F_{(1956,4)} = 35.8, p < .001$

<sup>233</sup>  $F_{(1956,4)} = 2.7, p < .05$

the number of parents,<sup>234</sup> presumably because there is a greater likelihood of parents dying as people move from younger to older middle age. No differences with age were observed for the number of siblings, friends, neighbours, colleagues and non-kin.

Figure 10.6

*Types of Relationships composing the Social Contacts of Middle-aged People by Age*

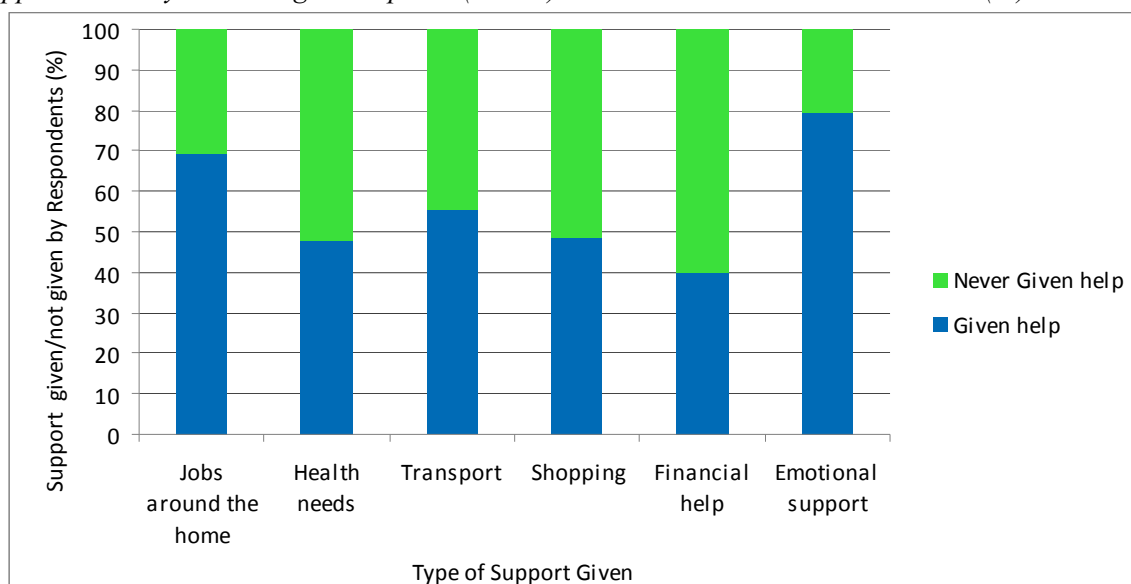


### 5.5 Support Exchange

Those respondents who named (grand)parents as a social contact, were most likely to give emotional support (79%), help with jobs around the house (69%) and transport (56%) (see Figure 10.7). Financial help (40%), help with shopping (49%) and help with health needs (48%) were the least likely to be given by the middle-aged to (grand)parents.

Figure 10.7

*Support Given by Middle-aged People to (Grand)Parents Named as a Social Contact (%)*



Those respondents who named (grand)parents as a social contact, were most likely to report that they received emotional support (70%), jobs around the house (47%), and financial help (38%) (see Figure

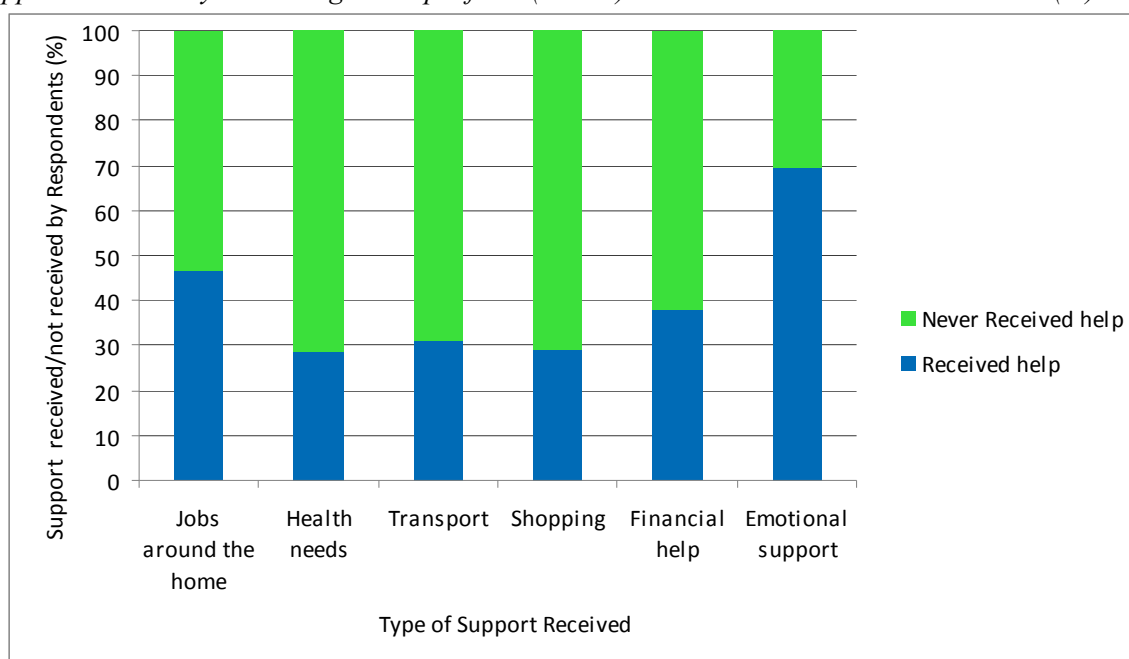
<sup>234</sup>  $F_{(1956,4)} = 49.8.7, p < .001$



10.8). Transport (31%), help with shopping (29%), and help with health needs (27%) were the least likely to be reported.

Figure 10.8

*Support Received by Middle-aged People from (Grand)Parents Named as a Social Contact (%)*



Looking specifically at those respondents who gave help to (grand)parents in the past twelve months, Figure 10.9 shows that respondents gave emotional support and help with jobs around the home on a more frequent basis than help with health needs or financial help. More than half (52%) of the respondents gave emotional support 'several times a month' or more and almost a quarter (24%) gave help with jobs around the home 'several times a month' or more. However, only 12% gave help with health needs and 4% gave financial help 'several times a month' or more.

Figure 10.9

*Intensity of Support Given by Middle-aged People by Type of Support (%)*

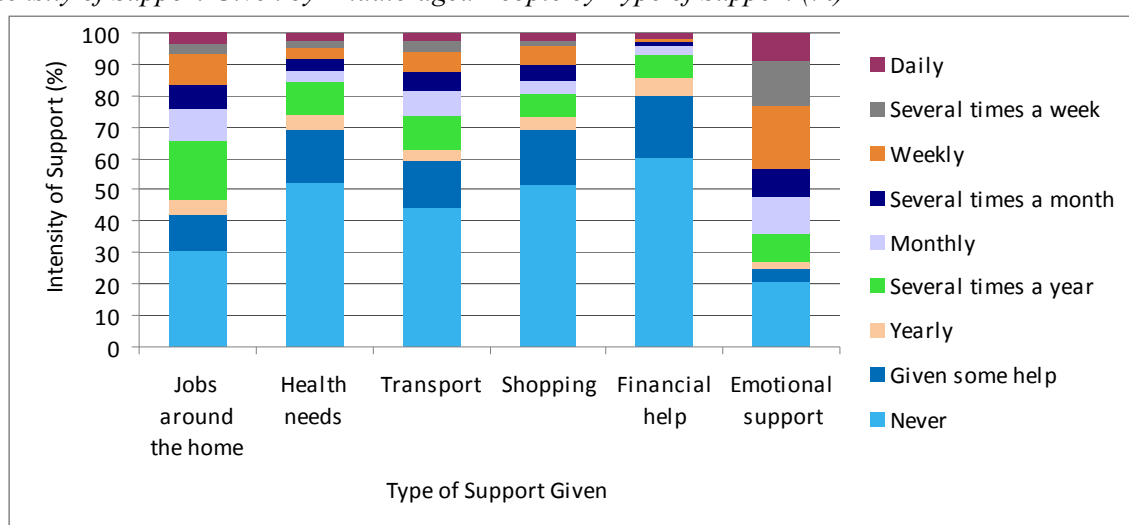
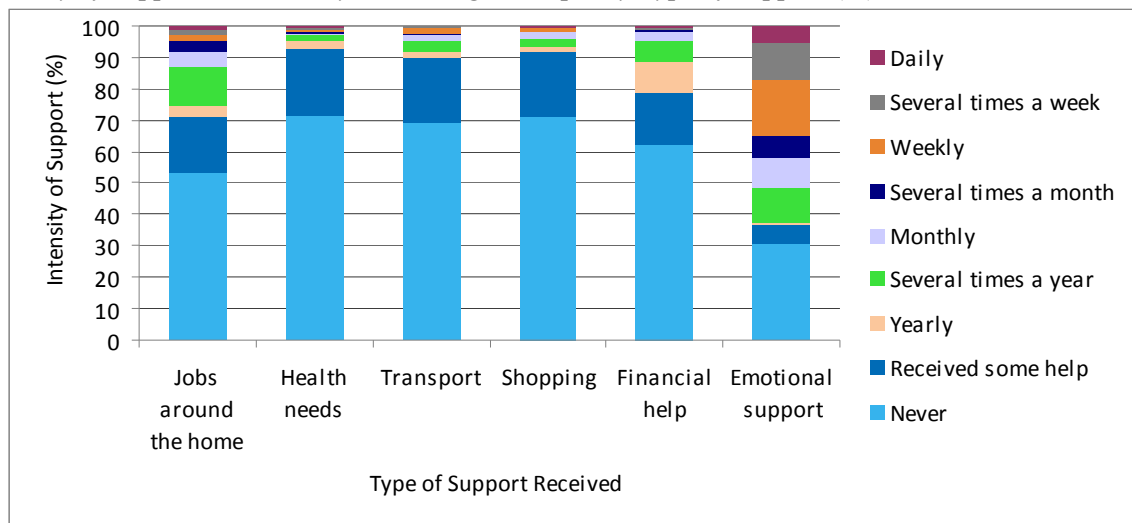


Figure 10.10 shows that respondents received emotional support on a more frequent basis than other types of support which are more instrumental oriented. Almost half (42%) of the respondents received emotional support 'several times a month' or more.

Figure 10.10

*Intensity of Support Received by Middle-aged People by Type of Support (%)*

### 5.6 Overall Gender differences in Support Exchange

In the middle-aged respondents' relationships, more instrumental support<sup>235</sup> was exchanged (both given and received) than emotional support. On the scale of support intensity within the social contacts with a range from 0 to 8, the average intensity of given and received instrumental support was about 5 (several times a month), and of emotional support approximately 4 (monthly).

The average intensity of instrumental support per category and emotional support given and received in the networks of men and women is shown in Table 10.2. Support exchange was the highest for women; both receiving and giving support. The largest mean difference was found for help given with health needs. There was no significant gender difference in emotional support given, but women received more emotional support than men.

Table 10.2

*Mean Support Given and Received by Gender*

|                         | Men | Women | <i>t</i> |     |
|-------------------------|-----|-------|----------|-----|
| <i>Support given</i>    |     |       |          |     |
| Jobs around the home    | 2.9 | 2.5   |          |     |
| Health needs            | 1.0 | 1.8   | -4.5     | *** |
| Transport               | 1.7 | 2.2   | -2.1     | *   |
| Shopping                | 1.2 | 1.9   | -3.2     | *** |
| Financial help          | 1.0 | 0.9   |          |     |
| Emotional support       | 4.2 | 4.2   |          |     |
| <i>Support received</i> |     |       |          |     |
| Jobs around the home    | 1.2 | 1.4   |          |     |
| Health needs            | 0.3 | 0.6   | -3.4     | *** |
| Transport               | 0.4 | 0.7   | -2.6     | **  |
| Shopping                | 0.4 | 0.6   | -2.3     | *   |
| Financial help          | 0.7 | 0.8   |          |     |
| Emotional support       | 3.1 | 3.8   | -3.0     | **  |

\* $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

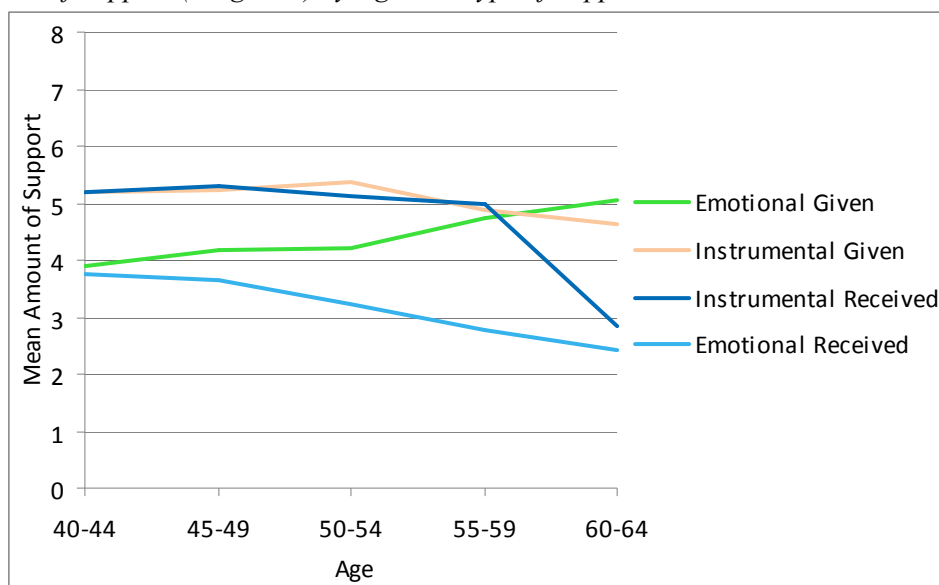
<sup>235</sup> The sum of support either given or received with jobs around the home, health needs, transport, shopping, and financial help.

### 5.7 Overall Age differences in Support Exchange

Support also varied with age. The oldest respondents (60-64 years old) had the fewest instrumental exchanges<sup>236</sup> and received the least emotional support, while the youngest respondents (40-44 years old) had the most instrumental exchanges and received the most emotional support (see Figure 10.11). Only the decrease of emotional support received was significant. The relationships of the oldest (60-64 years old) showed lower instrumental support received,<sup>237</sup> and given,<sup>238</sup> and emotional support received<sup>239</sup> than the relationships of the youngest, while the reverse was found for emotional support given.<sup>240</sup>

Figure 10.11

*Mean Amount of Support (range 0-8) by Age and Type of Support Given and Received*



### 5.8 Satisfaction with Social Contacts

Two measures of satisfaction with social contacts were established by the dichotomous response “satisfied” or “dissatisfied” to the questions of whether the respondent was satisfied with contact with his/her family, and whether the respondent was satisfied with contact with other people.

Overall levels of satisfaction with both types of contact were high. 90.6 percent of the respondents reported that they were satisfied with their *family contacts* (9.4 percent were dissatisfied), and 93.7 percent of respondents reported that they were satisfied with *contact with other people* (6.3 percent were dissatisfied).

### 5.9 Level of Satisfaction with Social Contacts, by Gender, Age, and Other Variables

There were no differences between men and women in their level of satisfaction, either with *contact with their family* or *contact with other people* between men and women<sup>241</sup> (data not shown). Satisfaction with contact with other people was also not significantly associated with education<sup>242</sup> (data not shown).

<sup>236</sup> The sum of support either given or received with jobs around the home, health needs, transport, shopping, and financial help.

<sup>237</sup>  $F_{(311,4)} = 1.9, p > .05$

<sup>238</sup>  $F_{(450,4)} = 1.0, p > .05$

<sup>239</sup>  $F_{(597,4)} = 3.0, p < .05$

<sup>240</sup>  $F_{(597,4)} = 2.0, p > .05$

<sup>241</sup>  $\chi^2 = 1.8, p = .18$  for satisfaction with contact with family;  $\chi^2 = 1.1, p = .29$  for satisfaction with contact with other people

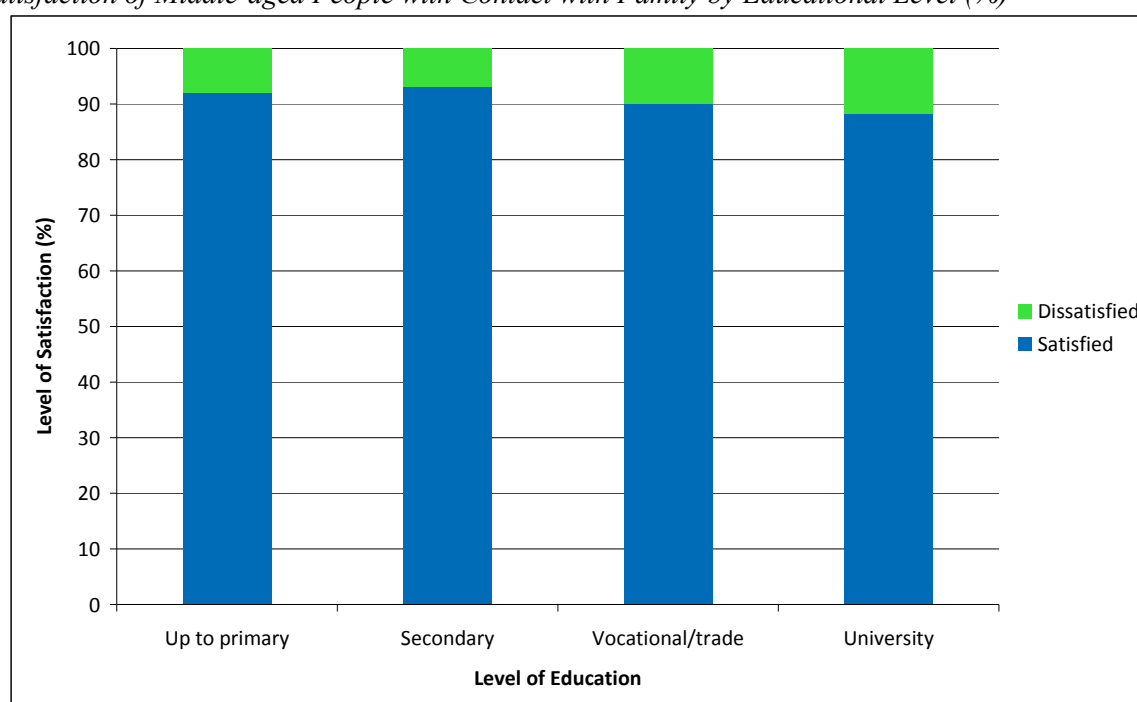
<sup>242</sup>  $\chi^2 = 3.9, p = .27$

However, the satisfaction of middle-aged people with both the contact with their family and contact with other people was significantly associated with age (data not shown).<sup>243</sup> Older respondents in the 60-64 age group were more satisfied with their social contacts than were the younger respondents, those in the 40-45 year age group.

Middle-aged people's satisfaction with *contact with family* was significantly negatively associated with educational level: the higher the educational level, the lower the level of satisfaction with contacts with family.<sup>244</sup> For middle-aged people with a university qualification, Figure 10.12 shows that 11.8 percent were dissatisfied with contact with family, compared with 10 percent of those with a vocational/trade qualification, 6.9 percent of those who completed secondary education, and 8.1 percent of those with up to primary education. Such a finding requires further research as to the reasons for this association, beyond the possibility that those with higher education might have more diverse and more demanding expectations of social relationships, or more demanding work hours.

Figure 10.12

*Satisfaction of Middle-aged People with Contact with Family by Educational Level (%)*



Satisfaction of middle-aged respondents with their *contacts with family members* was not associated with the type of their living arrangements.<sup>245</sup> However, respondent satisfaction with *contact with other people* was significantly associated with their living arrangements (see Figure 10.13), in that those who lived with others tended to be more satisfied with their social contacts with other people than those who lived alone (the exception being the divorced/separated).<sup>246</sup> Middle-aged people who were widowed or single and lived alone were less satisfied with their contact with other people than those who lived with a partner or in a shared household. For the divorced/separated who lived alone, their level of satisfaction with their contact with other people was comparable to those living with a partner or in a shared household, i.e. they were more satisfied with their social contacts than the widowed or single who lived alone.

<sup>243</sup>  $\chi^2 = 11.9, p < .05$  for satisfaction with contact with family;  $\chi^2 = 14.1, p < .01$  for satisfaction with contact with other people

<sup>244</sup>  $\chi^2 = 8.4, p < .05$

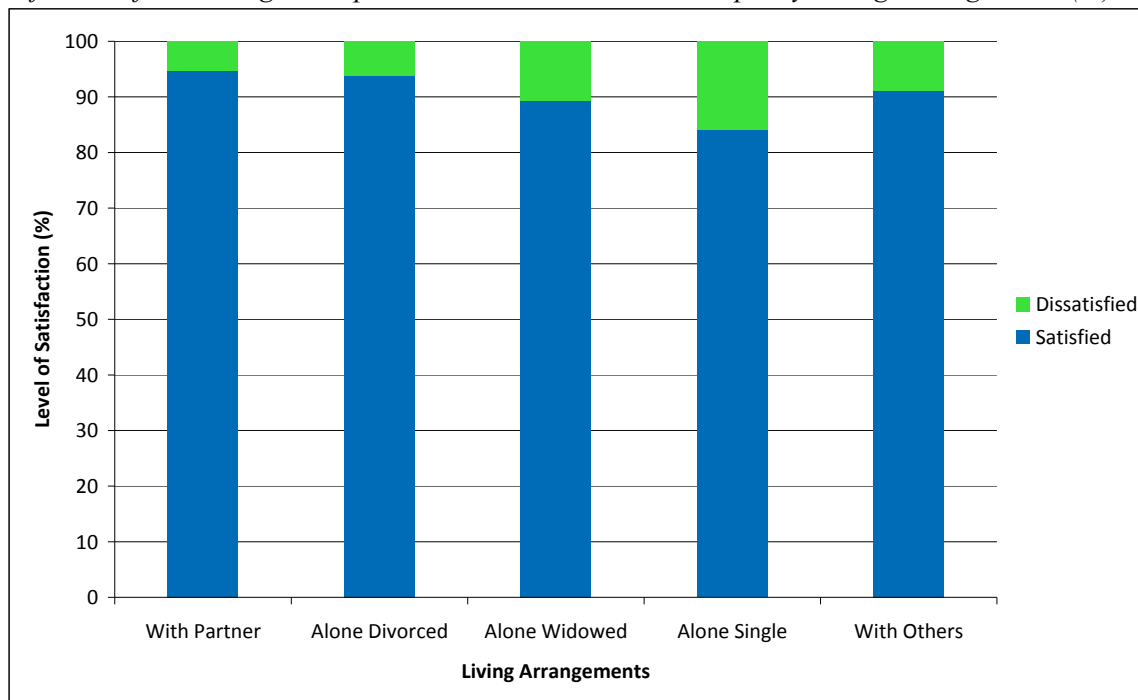
<sup>245</sup>  $\chi^2 = 8.8, p = .06$

<sup>246</sup>  $\chi^2 = 17.8, p < .001$

Overall, the highest level of satisfaction with *other social contacts* was experienced by those who lived with a partner or with others, and by the divorced/separated.

Figure 10.13

*Satisfaction of Middle-aged People with Contact with Other People by Living Arrangements (%)*



Reported satisfaction with *contacts with family* was not associated with the health status of the middle-aged respondents.<sup>247</sup>

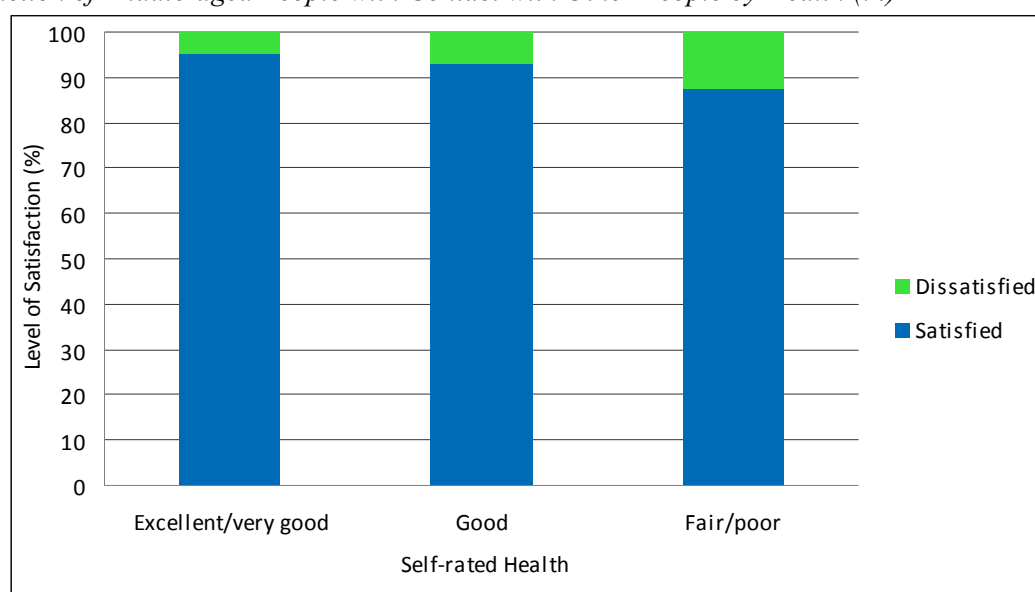
However, satisfaction with their *contacts with other people* was significantly associated with health (see Figure 10.14), with those middle-aged people who enjoyed better health being more satisfied with their contacts with other people than the middle-aged respondents in poorer health.<sup>248</sup> Those with poorer health had more frequent social contacts with others (daily rather than several times a week or less) than those with excellent/very good health, as reported above. Thus, those with good health had less frequent contact with others, but higher satisfaction with these contacts, while those with poorer health had more frequent contact with other people, but lower satisfaction with these contacts.

<sup>247</sup>  $\chi^2 = 4.9$ ,  $p = .09$

<sup>248</sup>  $\chi^2 = 20.4$ ,  $p < .001$

Figure 10.14

*Satisfaction of Middle-aged People with Contact with Other People by Health (%)*



#### 5.10 *Comparison of 40-64 year-old and 65-84 year-old respondents re Number, Frequency, Type and Satisfaction with Social Contacts by Age, Gender, Education, Income, Urbanisation, Health and Household Composition*

A comparison between middle-aged and 65-84 year-old New Zealanders shows that middle-aged respondents had fewer social contacts than the older ones (3 contacts, compared with 4.5 for the older cohort), yet the frequency and type of contact was generally similar in both age-groups (see Koopman-Boyden & van der Pas, 2009). This could well be in line with an overload of multiple roles in this middle-aged group, resulting in the number of social contacts being compromised (Waite & Harrison, 1992).

In both age-groups, there was no significant difference in *the number of social contacts* by age, educational level, income, living arrangements or level of urbanisation. With the middle-aged group, however, there was a positive relationship between the number of children and the number of social contacts. This was not the case with the older age group, thereby confirming that older parents are more likely to have less contact with their children.

With respect to *the frequency of contacts*, in *both age-groups*, there was no significant difference by age or level of urbanisation.

However, in both age-groups there was a significant difference in the frequency of contact by gender, health and living arrangements: women had more social contacts than men on a daily basis, and those in poorer health had more contacts than those in better health. Widowed respondents had the most frequent social contacts, followed by those who lived with others or a partner. Respondents who were divorced or separated had the least frequent contacts.

Differences between the two age-groups appeared in the relationship between frequency of contact and education and income, both being significant only for the 65-84 year-olds. Those with a higher education or income had fewer frequent social contacts, usually on a weekly basis rather than a daily basis.

With respect to *type of contact*, middle-age respondents used mainly the phone or in-person forms of contact. There was no relationship between the type of contact and age, income, health, or urbanisation. With education however, those with a higher education tended to be more distant in their

contacts (by phone rather than in person), while those with a lesser education had the most contact in person. There were also differences between men and women, with the women tending to make contact by phone (daily), and the men in person (weekly).

In considering the *relationship between social contacts and overall wellbeing*, a significant positive relationship was found between the number of social contacts reported by the 40-64 year-olds and their overall wellbeing (the greater the number of social contacts, the higher the level of overall wellbeing), whereas the relationship was not significant among the 65-84 year-olds. This is an important finding with respect to the difference between the two age-groups and could signal the greater importance of a wider network of contacts for the middle-aged group as opposed to a more selected and smaller group for the older age-group.

With respect to the *level of satisfaction with their social contacts*, among the 40-64 year-old respondents satisfaction was high, with 90.6 percent reporting that they were satisfied with their family contacts and 93.7 percent that they were satisfied with contact with other people (lower than the satisfaction of the 65-84 year age-group, with 96 percent and 97 percent respectively).

The findings also showed some interesting differences between the two age cohorts in relation to variables which were associated with *the respondents' satisfaction with their social contacts*, be they *family* or *others*.

In both age-groups the only variable which demonstrated no significant difference to the level of satisfaction with the respondents' contacts, both with family or others, was gender.

In the 40-64 year age-group education, health, gender and age made no difference *to satisfaction with their family contacts* (living arrangements did, with the greatest satisfaction where respondents lived with others). With respect *to their satisfaction with contacts with others*, neither gender nor education had any influence, but health, age and living arrangements were influential in that the better their health the higher their satisfaction with contact with others. Older respondents were more satisfied as were those who lived with others.

This is a somewhat different situation from the 65-84 year age-group. With respect *to their satisfaction with family contacts*, education, health and age also did not have any impact, but (as with the middle-aged group) those who lived with others expressed the greatest satisfaction. With respect *to their satisfaction with contacts with others*, while gender and age made no difference to their contacts with others, education, health and living arrangements did have a significant impact: the higher the education the lower the satisfaction; the higher the level of health the higher the satisfaction; and those who lived with others had a higher level of satisfaction.

### 5.11 *Participation and Leadership in Community Organisations*

To further examine the social connectedness of middle-aged New Zealanders, this study investigated the extent to which middle-aged people participated in a number of community organisations, and took leadership roles in them.

The average number of organisations that the middle-aged respondents participated in was 1.5 (SD = 1.4). Almost a third of the respondents did not participate in any organisation at all (29%) and almost another third of the respondents participated in only one organisation (29%, results not shown).

Information on the different types of community organisations in which respondents were involved is provided in Table 10.3. Of all the community organisations listed, respondents were most likely to be involved in some form of hobby (37.4%). Involvement in sport (27.9%), community services (24.3%), and religious organisations (19.9%) also ranked highly.

The highest participation in leadership roles was in community services, where 36% of those who were involved in a community or service organisation had a leadership role. More than a quarter of

those active in a trade union had a leadership role (27.5%), a quarter of those active in a school organisation (25%), and 25.2% of those participating in a choir, drama or music society. There was also a high level of leadership exhibited by the respondents who participated in sports clubs (23.6%), religious organisations (21.5%), and Māori ethnic organisations (21.6%).

Table 10.3

*Level of Participation and Leadership in Community Organisations (%)*

|                             | Participation Rate % | Leadership Role <sup>249</sup> |
|-----------------------------|----------------------|--------------------------------|
| Hobby                       | 37.4                 | 8.1                            |
| Sports Club                 | 27.9                 | 23.6                           |
| Community organisation      | 24.3                 | 36.0                           |
| Religious organisation      | 19.9                 | 21.5                           |
| School                      | 11.4                 | 25.0                           |
| Trade union                 | 7.3                  | 27.5                           |
| Choir, drama, music society | 5.5                  | 25.2                           |
| RSA, workingmen's club      | 3.8                  | 15.7                           |
| Women's organisation        | 3.5                  | 16.3                           |
| Other club, organisation    | 2.3                  | 18.6                           |
| Ethnic (Māori) organisation | 2.2                  | 21.6                           |
| Political party             | 2.1                  | 18.5                           |
| Other ethnic organisation   | 0.7                  | 21.4                           |

*5.12 Determinants of Participation in Community Organisations*

The influence of possible determinants of participation in organisations - gender, age, educational level and income, health and living arrangements - of middle-aged people were examined.

Overall there was no significant difference between men and women in the number of organisations in which they participated. However, there were gender differences in the *type* of community organisation. Table 10.4 shows that women were significantly more active than men in hobbies, community organisations, women's organisations and religious organisations. Men were significantly more active than women in sports clubs, the Returned Servicemen's Association/workingmen's clubs and trade unions. Middle-aged women were more involved in traditionally men's' clubs such as the RSA and workingmen's clubs (6.4%), while few men ventured into the traditional women's organisations (0.5%).

Table 10.4

*Participation in Community Organisations by Gender (%)*

|                             | Males | Females |     |
|-----------------------------|-------|---------|-----|
| Hobby                       | 35.1  | 39.6    | *   |
| Community organisation      | 21.5  | 27.0    | **  |
| Religious organisation      | 17.7  | 22.1    | *   |
| Sports club                 | 32.3  | 23.6    | *** |
| RSA, workingmen's club      | 6.0   | 1.6     | *** |
| Women's organisation        | 0.5   | 6.4     | *** |
| Other club/organisation     | 2.0   | 2.7     |     |
| Choir, drama, music society | 4.8   | 6.1     |     |
| Trade union                 | 8.5   | 6.1     | *   |
| Political party             | 2.0   | 2.1     |     |
| School                      | 9.6   | 13.2    | *   |
| Ethnic (Māori) organisation | 2.6   | 1.8     |     |
| Other ethnic organisation   | 0.7   | 0.7     |     |

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

<sup>249</sup> % of the respondents active in each community organisation



There was no significant association between participation in the different types of organisation and age, except for participation in a hobby, community organisation, school or women's organisation. Those who were older participated more in a hobby, community organisation, or women's organisation than those who were younger.<sup>250</sup> In contrast, those who were younger were more active in a school than those who were older,<sup>251</sup> suggesting an active involvement while respondents had children of school age.

Middle-aged respondents who had a higher level of self-rated health had a higher participation rate in organisations (M = 1.6) than those who had a lower level of self-rated health (M = 1.1).<sup>252</sup> Those who had a higher level of health were significantly more involved in hobbies, community organisations, sports clubs, trade unions and schools (see Table 10.5). In contrast, little difference was found in the respondents' level of self-rated health and their involvement in religious organisations, RSA, women's organisations, political party or ethnic clubs or organisations.

Table 10.5  
*Participation in Different Types of Organisations by Health (%)*

|                             | Fair/poor | Good | Very good/<br>Excellent |     |
|-----------------------------|-----------|------|-------------------------|-----|
| Hobby                       | 28.2      | 38.9 | 38.7                    | **  |
| Community organisation      | 15.4      | 26.1 | 25.4                    | **  |
| Religious organisations     | 17.4      | 21.0 | 20.0                    |     |
| Sports club                 | 19.4      | 22.0 | 32.0                    | *** |
| RSA, workingmen's club      | 5.3       | 4.1  | 3.4                     |     |
| Women's organisation        | 2.4       | 3.3  | 3.8                     |     |
| Other club, organisation    | 2.0       | 2.1  | 2.5                     |     |
| Choir, drama, music society | 2.4       | 8.4  | 4.8                     | *** |
| Trade union                 | 5.2       | 4.9  | 8.7                     | *   |
| Political party             | 1.6       | 2.1  | 1.6                     |     |
| School                      | 5.3       | 9.1  | 13.6                    | *** |
| Ethnic (Māori) organisation | 4.0       | 2.3  | 1.8                     |     |
| Other ethnic organisation   | 0.4       | 1.2  | 0.6                     |     |

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

The participation rate of respondents in organisations was also significantly associated with both their level of education and their income. Respondents with a higher level of education were more involved in organisations (M = 1.8) than those with a lower education level (M = 0.9).<sup>253</sup> More highly educated respondents were more involved in hobbies, community organisations, religious organisations, choir, drama or music society, trade unions and schools (see Table 10.6).

<sup>250</sup> Hobby:  $\chi^2 = 10.3$ ,  $p < .01$ ; Community organisation:  $\chi^2 = 13.5$ ,  $p < .01$ ; Women's organisation:  $\chi^2 = 18.1$ ,  $p < .001$

<sup>251</sup>  $\chi^2 = 62.9$ ,  $p < .001$

<sup>252</sup>  $F_{(1954,2)} = 13.6$ ,  $p < .001$

<sup>253</sup>  $F_{(1894,3)} = 19.5$ ,  $p < .001$

Table 10.6

*Participation in Different Types of Organisations by Education Level (%)*

|                             | Up to<br>primary | Secondary | Vocational/trade | University |
|-----------------------------|------------------|-----------|------------------|------------|
| Hobby                       | 30.2             | 35.7      | 37.8             | 43.2 *     |
| Community organisations     | 13.5             | 20.6      | 25.6             | 32.6 ***   |
| Religious organisations     | 13.6             | 17.3      | 21.3             | 24.2 **    |
| Sports club                 | 19.1             | 30.2      | 27.9             | 29.6 *     |
| RSA, workman's club         | 5.5              | 4.0       | 5.3              | 1.1 **     |
| Women's organisation        | 3.1              | 4.5       | 3.2              | 3.2        |
| Other club, organisation    | 0.6              | 2.2       | 2.1              | 3.6        |
| Choir, drama, music society | 1.9              | 4.5       | 4.5              | 8.5 **     |
| Trade union                 | 1.2              | 4.6       | 8.8              | 11.1 ***   |
| Political party             | 1.2              | 1.8       | 2.1              | 3.4        |
| School                      | 5.6              | 11.3      | 11.4             | 14.0 *     |
| Ethnic (Māori) organisation | 1.2              | 1.7       | 2.9              | 2.3        |
| Other ethnic organisation   | 0                | 0.7       | 0.8              | 1.1        |

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

The association between participation in organisations and income<sup>254</sup> was similar to the findings on education level.

No significant association was found between respondents' participation in a community organisation and their satisfaction with either their contact with family or with other people.

*5.13 Comparison of 40-64 year-old and 65-84 year-old New Zealanders regarding Number and Type of Participation in Community Organisations by Age, Gender, Education, Income, and Health; and their Leadership Roles in Community Organisations*

A comparison of the 40-64 year-olds with the 65-84 year age group reveals a very similar *type of involvement in community organisations* (see Table 10.7). The highest *level of participation* among both age cohorts was in a hobby, community organisation, religious organisation and/or sports club, with the level of participation in the 'top four' being hobby (37.4 percent for 40-64 year-olds, and 36.1 percent for 65-84 year-olds); community organisation (24.3 percent and 32.7 percent); religious organisation (19.9 percent and 26.5 percent); and sports club (27.9 percent and 24.4 percent).

*Men and women* in both age cohorts showed the same differences in their type of participation, with men participating most in sports, RSA/working men's clubs, and trade unions, while women were significantly most involved in hobbies, community organisations, and religious and women's organisations. Again, in both age cohorts women showed more involvement in traditional men's clubs (RSA/working men's clubs) than men showed in traditional women's organisations.

The older middle-aged respondents were more likely to participate in hobbies, community organisations and women's groups, while the younger were significantly more involved in school organisations. For the 65-84 year-olds the only *age difference* of significance was the higher participation rate of the older respondents in 'other' clubs, indicating perhaps a broader range of interests, or less reliance on paid work for social contacts

With respect to *education, income and health*, the association of each with participation rates was very similar for both age cohorts. Those respondents who had a higher level of education, income or health had a higher participation rate in community organisations, in both instances including participation in hobbies and community organisations. With a higher level of education, both age cohorts were more likely to participate in choir/drama/music and trade unions, with the 40-64 year-

<sup>254</sup>  $F_{(1489,4)} = 2.9, p < .05$

olds also participating more in school organisations. With a higher level of health, both age cohorts were more likely to participate in sports, with 40-64 year-olds also participating in school organisations, choir/drama/music, and trade unions, and the 65-84 year-olds also participating in religious organisations, school, RSA/workingman's clubs, 'other' and Māori organisations.

The *level of leadership* in community organisations was obviously dependent on the level of participation (see Table 10.7). In many cases there was a high level of participation in both age cohorts, along with a high rate of leadership. Both age cohorts had high participation rates in sports clubs, community organisations and religious organisations, ranging from 19.9% to 32.7% of respondents, along with their involvement in leadership, 21.5% to 36.0%. Several organisations, however, had low participation rates in both age groups, but high leadership involvement, for example women's organisations, Māori organisations and other ethnic organisations.

Table 10.7

*Comparison of 40-64 year-olds and 65-84 year-olds re Level of Participation and Leadership in Community Organisations (%)*

|                             | 40-64 year-olds      |                                | 65-84 year-olds      |                               |
|-----------------------------|----------------------|--------------------------------|----------------------|-------------------------------|
|                             | Participation Rate % | Leadership Role <sup>255</sup> | Participation Rate % | Leadership Role <sup>23</sup> |
| Hobby                       | 37.4                 | 8.1                            | 36.1                 | 14.4                          |
| Sports Club                 | 27.9                 | 23.6                           | 24.4                 | 23.8                          |
| Community organisation      | 24.3                 | 36.0                           | 32.7                 | 30.3                          |
| Religious organisation      | 19.9                 | 21.5                           | 26.5                 | 24.8                          |
| School                      | 11.4                 | 25.0                           | 3.1                  | 19.6                          |
| Trade union                 | 7.3                  | 27.5                           | 5.4                  | 15.6                          |
| Choir, drama, music society | 5.5                  | 25.2                           | 8.7                  | 19.3                          |
| RSA, workingmen's club      | 3.8                  | 15.7                           | 13.7                 | 8.2                           |
| Women's organisation        | 3.5                  | 16.3                           | 9.3                  | 22.4                          |
| Other club, organisation    | 2.3                  | 18.6                           | 10.8                 | 8.3                           |
| Ethnic (Māori) organisation | 2.2                  | 21.6                           | 2.4                  | 25.0                          |
| Political party             | 2.1                  | 18.5                           | 4.2                  | 5.7                           |
| Other ethnic organisation   | 0.7                  | 21.4                           | 0.5                  | 0                             |

#### 5.14 *Social Contacts of Middle-aged People, Satisfaction with their Contacts, Participation in Organisations, and association with Overall Wellbeing*

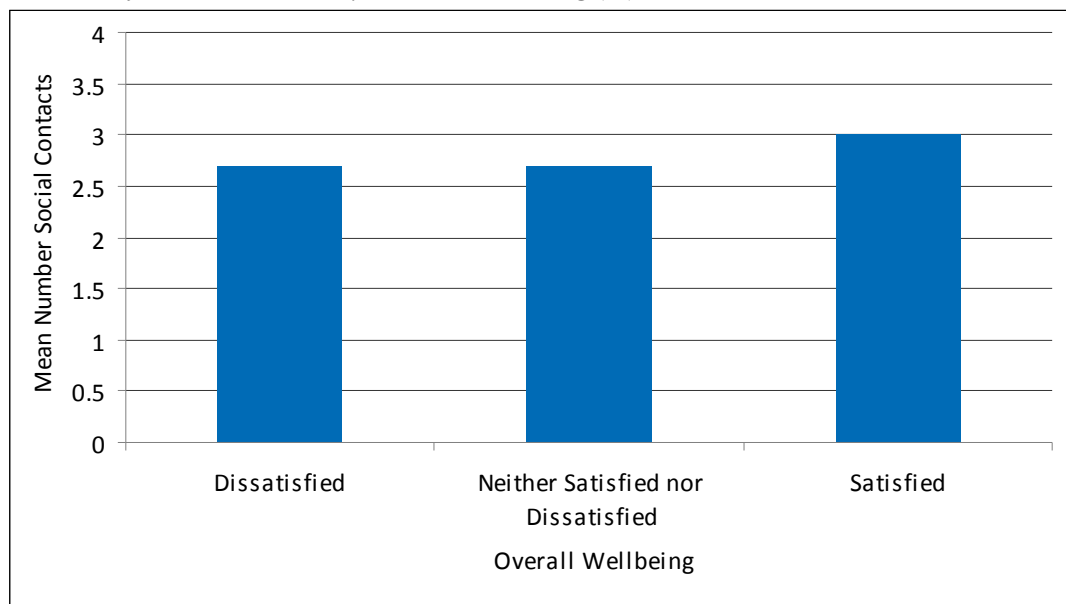
The researchers were interested in finding any association among the respondents' social connectedness (as measured by social contacts), satisfaction with their contacts, their participation in organisations, and overall wellbeing.

Firstly, the mean number of social contacts of middle-aged respondents was significantly associated with their wellbeing. Those who were very satisfied with their life in general had a higher average number of social contacts (see Figure 10.15).<sup>256</sup>

<sup>255</sup> % of the respondents active in each community organisation

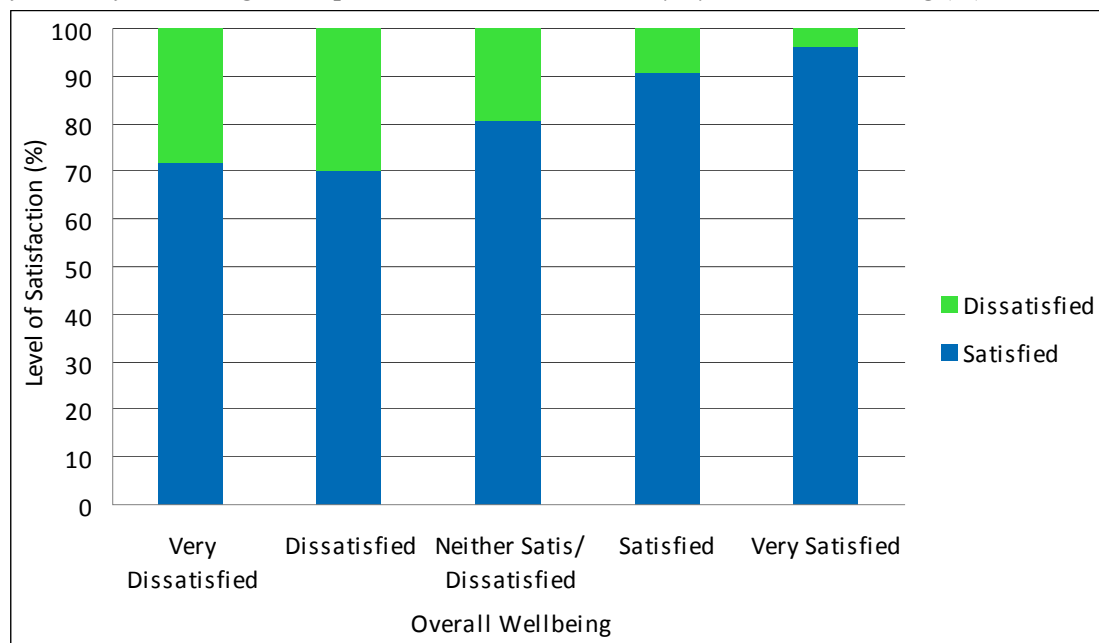
<sup>256</sup>  $F_{(1810,4)} = 3.4, p < .05$

Figure 10.15  
*Mean Number of Social Contacts by Overall Wellbeing (%)*



Secondly, the level of satisfaction among middle-aged respondents with both their contacts with family and with other people had a close association with their overall wellbeing (see Figures 10.16 and 10.17). Thus a higher level of satisfaction with contact with family and with other people was associated with a significantly higher level of overall wellbeing.<sup>257</sup>

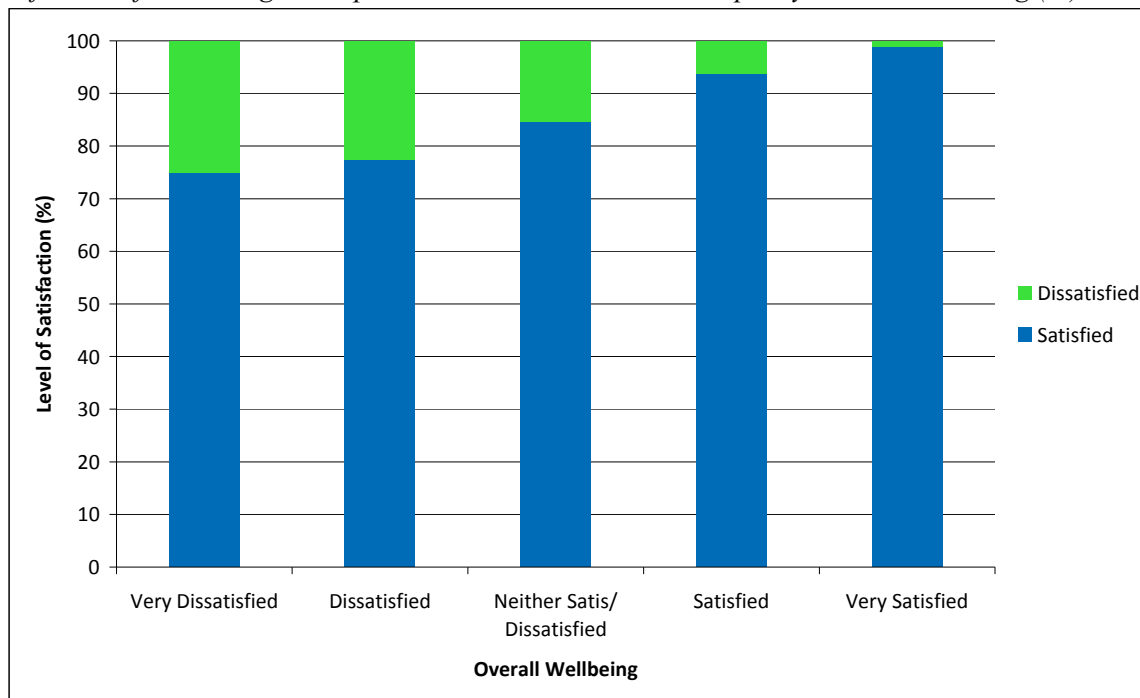
Figure 10.16  
*Satisfaction of Middle-aged People with Contact with Family by Overall Wellbeing (%)*



<sup>257</sup>  $\chi^2 = 99.3$ ,  $p < .001$  for satisfaction with contact with family;  $\chi^2 = 111.8$ ,  $p < .001$  for satisfaction with contact with other people.

Figure 10.17

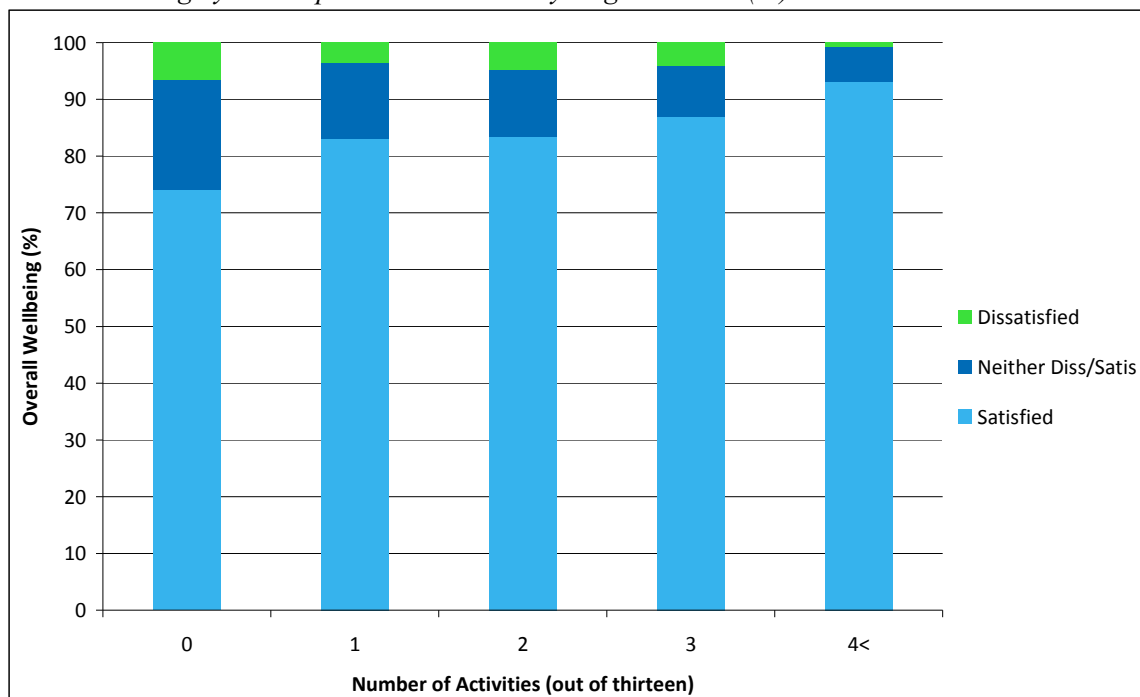
*Satisfaction of Middle-aged People with Contact with Other People by Overall Wellbeing (%)*



Thirdly, the participation rate of the middle-aged respondents in community organisations was also significantly related to overall wellbeing. Middle-aged people who were involved in a higher number of organisations had a higher overall wellbeing (see Figure 10.18).<sup>258</sup>

Figure 10.18

*Overall Wellbeing by Participation in Community Organisations (%)*



<sup>258</sup>  $\chi^2 = 42.7, p < .001$ ; Participation in 4 or more community organisations was collapsed into one category.

Finally, in considering the relationship between the respondents' participation in different types of community organisations and their overall wellbeing, the results show that middle-aged people who were involved in a community organisation, sports club, religious organisation or hobby were statistically significantly more satisfied with their overall wellbeing (results not shown).<sup>259</sup>

## 6. Conclusion

This chapter set out to consider the dimensions of social connectedness among 40-64 year-olds in New Zealand in 2008 by investigating their social contacts and satisfaction with these contacts, along with their level of community participation, and the association of these forms of social connectedness with wellbeing. It also considered several comparisons with the older age group of 65-84 year-olds previously interviewed (Koopman-Boyden & van der Pas, 2009).

With respect to the *number of social contacts*, respondents overall had an average of 3 'frequent and important' contacts, ranging in number from no contact to 14 contacts. Women had a slightly larger number of social contacts than men, but there were no differences in the number of social contacts according to age, educational level, income, living arrangements or level of urbanisation. There was, however, a positive association between the number of social contacts and the number of children. It is difficult to compare the number and frequency of social contacts with other surveys, as the definition of what constitutes a 'social contact' varies widely: for example, the inclusion or exclusion of a spouse within the definition of social contacts varies. In this research, the spouse was not included in the definition of social contacts.

A comparison with the 2007 New Zealand survey of 65-84 year-olds (which also excluded the spouse) showed the number of social contacts among 40-64 year-olds as relatively low, with an average of 3 contacts, compared with 4.6 for the older age cohort. In both age groups, the *frequency of contact* varied according to gender, health and living arrangements, but not with age or level of urbanisation. *Type of contact* varied in both age groups according to education and gender, but not with age, income, health or level of urbanisation.

Among the 40-64 year-olds, a *significant positive relationship was found between the number of social contacts and overall wellbeing* (the greater the number of social contacts the higher the level of overall wellbeing), whereas the relationship was not statistically significant among 65-84 year-olds.

With respect to the level of *satisfaction with their social contacts*, satisfaction was high among the middle-aged respondents, with 90.6 percent of the respondents reporting that they were satisfied with their family contacts, and 93.7 percent that they were satisfied with contact with other people. This is lower than the satisfaction of the older age-group, with 95.8 percent and 97.5 percent respectively.

Living arrangements was the only variable tested which had a significant association with the 40-64 year-olds' satisfaction with social contacts with their family and with others: those who lived with other people had a higher level of satisfaction with their contacts. The other variables of education, health, gender and age made no significant difference to satisfaction with contacts with their family, while gender and education had no association with their satisfaction with contacts with others. However, health and age were statistically significant.

A comparison with the 65-84 year-olds revealed that living arrangements again made a significant difference to levels of satisfaction with contacts with both family and others, but age and gender made no difference in satisfaction with both types of contacts. The other variables had a differential impact on satisfaction with family and with others.

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<sup>259</sup> Only involvement in community services ( $\chi^2 = 11.9, p < .01$ ), sports clubs ( $\chi^2 = 10.0, p < .01$ ), religious organisations ( $\chi^2 = 12.2, p < .01$ ) and hobby ( $\chi^2 = 23.3, p < .001$ ) was significantly associated with overall wellbeing.

Overall, middle-aged people had the most contact with their friends, children and parents. Women had more family members as social contacts than men, and also the number of family members, particularly children and other kin, increased with age.

The analysis of the social exchanges of the middle-aged revealed some interesting differences between the giving and receiving of the two types of support exchanged, and in relation to their (grand)parents and to others. Respondent support *given to* as well as *received from* their (grand)parents in particular was more likely to be emotional than instrumental support. Furthermore, when the respondent *gave to* or *received emotional support from* their (grand)parents, the frequency was likely to be more intensive than any instrumental support.

In respect to support exchanges with other people, women were more likely than men both *to give* and *to receive* support with health needs, transport and shopping, and also they were more likely *to receive* emotional support. Men and women gave similar amounts of emotional support.

Older male and female respondents (and particularly the 60-64 year-olds) were less likely than the younger respondents to either give or receive instrumental support to or from others. With emotional support, older respondents were also less likely to receive such support, but were the most likely of all the five year-age groups to give emotional support.

Overall, the support exchanges of the middle-aged with others seem to decline as they get older, with only emotional support increasing, as the older respondents give more emotional support to others.

The most important finding about the social contacts of the middle-aged respondents was the *positive relationship between high satisfaction with contacts with family and with others, and a high level of wellbeing*, a similar finding to that of the older age-group.

With respect to the level of social connectedness measured through the respondents' *participation and leadership in community organisations*, almost two-thirds of the middle-aged either did not participate in any organisational activity or participated in only one. Overall, the respondents participated in an average number of 1.5 organisations. Within many of these organisations up to a quarter of the respondents took a leadership role. The highest level of participation was for a hobby, followed by participation in a sports club, or a community or service organisation.

The level of participation in community or service organisations overall, and the choice of organisation, was related to gender, health, education and income. The better the respondent's health, education level or income, the higher their participation in community organisations. Most importantly, there was a positive relationship between the respondents' level of participation in community organisations and their level of wellbeing.

Fewer of the middle-aged participated in community organisations than the older age-group, presumably because of their multiple commitments to work and family, but more of these 40-64 year-olds undertook leadership roles. In many of the organisations, while the 40-64 year-old level of participation was low (e.g. 5.5% in choir/drama/music), their involvement in leadership was very high (in choir/drama/music 25.2%) Such leadership involvement would auger well for the future of such community organisations, but greater effort will have to be made to encourage their participation as they become free of work/family commitments.

*Overall, the findings on social connectedness among middle-aged New Zealanders suggest a strong relationship among the number of social contacts, satisfaction with these social contacts (both with family and with others) and the level of wellbeing. A further indicator of the importance of social connectedness to wellbeing was found in the higher level of wellbeing reported among the middle-aged who were involved in community organisations.*

A comparison of the 40-64 year-olds with the 65-84 year-olds showed a lower level of social connectedness through a lower number of social contacts and a lower satisfaction among the middle-age respondents with these contacts. Lower participation rates in community organisations were however offset by their higher leadership involvement.

While it is recognised that the cross-sectional analysis does not allow for any longitudinal considerations, the data do raise the issue of whether the present cohort of middle-aged New Zealanders will continue to have lower levels of social connectedness in their older years, than those already in the older age-group. Presumably their paid work commitments, in themselves being a form of social connectedness, currently constrain wider social participation. The impact of paid work will lessen as they age, although an increasing proportion of 65+ year-olds are remaining in the workforce.

With the higher numbers of New Zealanders in this middle-aged group ('the boomers'), their increased involvement in community organisations will need to be encouraged to undertake the increased amount of community and voluntary work required in caring for their ageing peers. The current cohort of older people already undertake a huge amount of community service, in many cases supporting people who are strangers (as well as those in their own family). Furthermore, those middle-aged who are currently leaders in their respective community organisations, should also be encouraged to remain involved into their older years, continuing to provide leadership within the paid and voluntary workforce.

Finally, the results indicate a continuing gender difference in support exchange. Middle-aged men and women are likely *to give* and *to receive* more instrumental support than emotional support. Both men and women give about the same amount of emotional support, but middle-aged women are more likely to receive emotional support.

Women are also more likely than men *to give* and *to receive* specific types of instrumental support: health needs, transport and shopping. This suggests that while middle-aged men and women both *give* and *receive* more instrumental support than emotional support, and *give* emotional support in about the same amounts, in giving certain types of support (personal care regarding health needs, transport and shopping), for the women this support becomes an exchange relationship which is accompanied by emotional support. Such an exchange could well develop as a companionship relationship, continuing into older years, and being able to function as a further form of social connectedness.

Community groups would do well to continue to encourage middle-aged men and women to exchange both instrumental and emotional support. Such a practice is particularly important in an ageing society, where with the higher number of people living alone, older people in particular need to adopt a wide spectrum of exchange support, within a wide exchange network.

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# Chapter 11: Culture and Religion among Midlife New Zealanders

Charles Waldegrave

## 1. Introduction

This chapter focuses on the survey data that pertains to culture and religion for midlife New Zealanders. Culture and religion are of particular interest at this time of life, because many people transition from parenthood to grandparenthood and their beliefs, values and ways of doing things have usually matured and impacted on at least one generation younger than themselves. Those who are not parents often have important generational roles in extended families. Notions of wellbeing frequently relate to the meanings people accord to events and the groups and institutions they attach themselves to. Cultures and religions are rich with meaning, values and rituals.

Midlifers have grown up during a period of increasing cultural diversity, whose causes include the post-war Māori rural to urban migration, Pacific migration and, more recently, substantial Asian migration. During this period, church membership and the influence of religion have declined considerably, but they still play a role in the lives of many New Zealanders. New Zealand has sought its identity separate from the UK, with its own art, culture and institutional processes. The Treaty of Waitangi has been a critical focus for race relations and government policy. This research seeks to understand the impact of these unique experiences and perspectives on the wellbeing of midlife New Zealanders.

Unlike the previous chapters, this chapter gathers the data on two quite separate social domains. Cultural identity, like all the other domains analysed in this monograph, is a domain addressed in the Social Report (Ministry of Social Development, 2008). However, religion is not. When designing this study, the research team became aware that the larger international studies of older people and wellbeing varied in the way they addressed the subject of religion and its relationship to wellbeing or simply did not consider it, as is the case of the Social Report. It was decided it would be prudent to include questions on religious practice and attitudes in the questionnaire, because studies have shown them to be positively associated with quality of life measures.

*Culture* and *ethnicity* are terms that overlap in meaning and, on occasions, are used interchangeably. In this chapter *culture* refers to the way particular groups of people live, adapt, survive and prosper. It embraces language, customs, traditions, religious practices, values and social organisation. In this context, it is essentially about the practices, beliefs and norms associated with a particular ethnic group. *Ethnicity* refers to belonging to or membership of a particular cultural group. It embraces people who share the same origins, language, and heritage of religion, ancestry and culture. A simple distinction between the two is that culture refers primarily to ways of living and doing things, and ethnicity to belonging and membership.

*Religion*, *faith* and *spirituality* are also terms that overlap in meaning and are on occasions used interchangeably. For the purposes of this chapter, *religion* refers to systems of thought and communal faith that include narratives, symbols, beliefs and practices which give meaning to life and usually relate to a deity or higher power. *Faith*, in this context, refers to belief or trust in a religion or aspects of it, without the need for logical proof or material evidence. Faith can exist whether or not a person participates communally in religious practice. *Spirituality* refers to an appreciation of the non-tangible and non-material aspects of being. Spirituality may or may not include religion. It may simply focus on a person's inner life and introspection. It can involve contemplation, prayer and meditation.

This chapter starts with an introduction to the literature on these two domains, beginning with *culture and ethnicity*, then *midlife Māori and wellbeing*, and *international literature on culture and wellbeing*. These will then be followed by *religion and faith*, and *international literature on religion, wellbeing and health*. There is then a brief section on the methods used, and the results are presented in two discrete sections, Culture and Ethnicity, and Religion and Faith. The final section provides the summary and conclusions for both.

The results in the section on culture and ethnicity focus on comparisons between midlife Māori and non-Māori who are between the ages of 40 and 64 years, because the numbers of Pacific and Asian in this cohort are small, and the recruited sample for this survey showed an even smaller proportion. (The ethnic distribution numbers and proportions are set out in the results section of this chapter.) It was decided that the Pacific and Asian groups were too few to warrant comparative statistical calculations. The Māori numbers, though small, are sufficient to support comparative analysis and qualified conclusions that can be compared with trends in the census data and other studies. Some information about Pacific peoples from other studies is included.

The religious questions focussed primarily on religious participation, the importance participants placed on faith, and the wellbeing indicators associated with it.

## **2. The Literature: Culture, Religion and Wellbeing**

This section first explores culture and ethnicity, and the interaction of these with wellbeing. It next explores religion and faith, and their impact on wellbeing.

### *2.1 Culture and Ethnicity.*

Ethnic diversity for those in midlife between 40 and 64 years in New Zealand is less than for New Zealand's population overall. For the population as a whole, as recorded in the 2006 census, the ethnic distribution of Pakeha/Europeans (67.6 percent), Māori (14.6 percent), Pacific (6.9 percent) Asian (9.2 percent), New Zealanders (11.1 percent) and Other (0.2 percent) is rapidly diversifying (Statistics New Zealand, 2007a).

In contrast, for those aged 40 to 64 years Māori make up 10.2 percent, Pacific 4.3 percent and Asian 7.7 percent of the population (Statistics New Zealand, 2007b). Officially Pakeha/Europeans make up 68.5 percent, but it is very likely that this figure underestimates their numbers, because the category 'New Zealander' (introduced to the 2006 census for the first time) recorded 14.1 percent of the population. It is probable that many of those people are Pakeha/European. Data from previous censuses show that the non-Pakeha/European population is increasing, while the Pakeha/European group is decreasing. Ethnic diversity can be expected to increase in future years, as the more diverse younger age groups move into the 40+ cohort. Māori aged 40-64 are slowly increasing as a percentage of the Māori population, from 17.3 percent in 1996 to 22.4 percent in 2007. This is a much higher proportion than the 65 plus cohort, which in 2007 was just 4.3 percent of the Māori population (Statistics New Zealand, 2007c).

#### *2.1.1 Midlife Māori and Wellbeing*

Māori wellbeing, applying a range of social indicators, is generally lower than non-Māori, as the following studies show. However, recent data demonstrate substantial improvement in social indicator scores, and in some cases, such as life expectancy, participation in tertiary education, reductions in unemployment rates and increases in employment rates have been greater for Māori than for the rest of the population. Māori life expectancy, for example, gained more between 1995-1997 and 2000-2002 than non-Māori. The gap between Māori and non-Māori life expectancy from birth increased 2.4 years between 1985-1987 and 1995-1997, whereas in the following 5 years to 2000-2002 it actually reduced by 0.6 years (Ministry of Social Development, 2008).

However, studies have consistently shown Māori have poorer outcomes in health and social indicators studies. The largest disparities between Māori and non-Māori were found for the midlife group (45 to 64 years) in a study of census and health information data from 1980 to 1999 (Robson, 2004). The Māori rates for all-cause mortality were three times those of non-Māori. Māori, and to a lesser extent Pacific people, demonstrated a higher prevalence of mental disorders of 12 month duration or more than the rest of the population in another study that examined the data from the 2003/04 New Zealand Mental Health Survey (Baxter et al., 2006). Differences remained after adjusting for age, sex, education and income variables. Pacific people in particular and Māori were less likely to have contact with health and non-health services. In a more recent study of living standards, the scores for Māori and Pacific populations were bunched towards the lower end of the scale, with Pakeha/Europeans towards the top (Jensen et al., 2004). Some degree of living standards hardship was experienced by 40 percent of Māori and 58 percent of Pacific people in 2004, compared to just 19 percent for Pakeha/Europeans.

However, while acknowledging outcomes for Māori and Pacific people were on average poorer than for the total population, the most recent Social Report (Ministry of Social Development, 2008) shows improvements in the majority of the time series data. As noted above, Māori improvement in some key measures has been greater than for the total population. Out of 18 indicators for health, knowledge and skills, paid work, economic standard of living, safety and social connectedness, Māori had improved in 16. The two exceptions were obesity and road casualties. Pacific people showed improvement in all 13 indicators chosen for them. Despite this improvement though, the Pacific rates for obesity, cigarette smoking and participation in physical activity were low.

Wellbeing can also be measured through indicators of cultural identity. Māori were more likely to have participated in cultural activities (97 percent) than Pakeha/European (93 percent) or Pacific peoples (92 percent) in the Cultural Experiences Survey, which included 13,475 respondents aged 16 and over (Statistics New Zealand, 2002). Popular activities for Māori were visiting a marae and attending an art gallery or museum. Pacific peoples had the highest participation rate for community-based cultural and ethnic activities (39 percent).

The link between wellbeing and language satisfaction has been investigated among 825 Māori aged 30-79 (Gee et al., 2003). Te reo satisfaction was found to be associated with life satisfaction and positive self-identity, even when physical, spiritual, family and social inclusion factors were taken into account.

The proportion of Māori speakers in the Māori population is highest for older age cohorts and has been decreasing with younger age cohorts. Census data for 2001 and 2006 showed that in 2006 nearly half (49 percent) of Māori aged over 65 could converse in Māori about everyday things, while 36 percent of those aged 55-64 and 30 percent of those aged 45-54 were able to do so (Ministry of Social Development, 2008). The biggest decline in te reo speakers between 2001 and 2006 was in the midlife cohort of 55-64 years. When the same data was analysed in a Te Puni Kokiri report (2008), it showed that up to 55 years, the rate of people with Māori language proficiency was 21 percent, but for those over 55 years it was 41 percent. For the midlife group (in this report between the ages of 35 and 54 years), the rate was 25 percent. The researchers noted that the younger age group's proficiency rate has increased from 2001 to 2006, and the language is in active use in Māori settings such as hui or religious activities.

However, self-reported fluency in te reo was not the most significant indicator of a positive self-identity. More important than te reo fluency, contact with other Māori organisations or involvement in Treaty claims, was contact with their marae. "People who had a more positive ethnic identity as Māori had a higher self-esteem" (Gee et al., 2003:20).

### *2.1.2 International Literature on Culture and Wellbeing*

Minority status among ethnic groups has been found to be a positive predictor of eudaimonic wellbeing (optimal functioning, fulfilment of basic needs and development of one's potential) when

compared with majority white status. In a large survey using data from the National Midlife in the United States (MIDUS) study of 24 to 74 year-olds, minority status was found to be linked to higher levels of existential and humanistic well-being (Ryff, Keyes & Hughes, 2003). For all outcomes minority groups were better off relative to whites, demonstrating psychological strength in the face of adversity. In a further analysis, the authors found that ethnic minority status was a significant predictor of positive wellbeing across numerous outcomes, including self-acceptance, environmental mastery and personal growth, even after controlling for education and perceived discrimination (Ryff, Keyes & Hughes, 2004).

Similar results were found for Australian Aboriginal and Torres Strait Islanders with strong cultural attachment. They showed significantly higher scores on socio-economic wellbeing indicators of health, risky behaviour and contact with the justice system than those with weaker cultural attachment (Dockery, 2009). Data from the National Aboriginal and Torres Strait Islander Social Survey showed that those with strong attachment had significantly better self-assessed health and were most likely to be employed. Those with moderate attachment were most likely to have had a risky level of alcohol consumption in the past 2 weeks, while those with a strong attachment were the least likely. Weak or moderate cultural attachment was associated with a greater likelihood of having been arrested in the last 5 years.

The effect of emotional support on wellbeing and health was found to be moderated by culture in a study that compared Asian students and their midlife relatives with their Euro-American equivalents (Uchida et al., 2008). The authors noted that, for the Euro-American participants, emotional support was valued because of an internal sense of worthiness, and thus the independence of the self, whereas for the Asian participants it affirmed the sense of self as being interdependent. Once self-esteem was controlled for, perceived emotional support had no effect on the wellbeing of midlife American adults. However, there was a stronger association between self-esteem and life-satisfaction in American adults than Asian. For the Asian cultural groups, perceived emotional support predicted positive wellbeing and health, independent of self-esteem.

Cultural differences in wellbeing were also found in a qualitative study of midlife Pakistani, British Muslim, white English, African Caribbean, black and West Indian women aged between 36 and 60 years (Wray, 2007). Its focus was on the impact on wellbeing among midlife women of health and exercise promotion initiatives. Ethnic and religious beliefs proved to be a stronger influence on participation and diet than health promotion advice.

However, contrary findings regarding wellbeing were demonstrated in an earlier study of Chinese, mostly immigrants to San Francisco, with an average age of 37 years (Ying, 1995). Chinese language proficiency was not correlated with psychological wellbeing, but English language proficiency was associated with positive affect and satisfaction. Individuals who participated in both American and Chinese cultural activities showed higher wellbeing than those who participated in only Chinese activities, and better life satisfaction than those who participated rarely in any cultural activities. The author concluded that a strong orientation to Chinese cultural activities did not improve wellbeing unless American cultural activities were enjoyed also.

These studies that have investigated the association of ethnicity and cultural identity with differing aspects of wellbeing, despite some exceptions, provide substantial evidence of a positive relationship. Both subjective feelings of satisfaction and objective measures of behavioural achievement have been shown to be positively associated with cultural identity. However, the expression of wellbeing was found to be moderated differently in different cultures with different meanings.

## *2.2 Religion and Faith*

Very little research has focused on the relationship between religion or faith and wellbeing in New Zealand. The indicators of wellbeing in the Social Report (Ministry of Social Development, 2008) do not refer to religion, faith or spirituality, not even under the leisure and recreation section. However, the 2006 Census (Statistics New Zealand, 2007b) showed that 72 percent of midlife New Zealanders

(40 to 64 years) were affiliated to some form of religion, the bulk of which were Christian (64.7 percent). Other religions made up 7.1 percent, while 28.2 percent recorded no religious affiliation. Despite this, midlife New Zealanders showed lower religious affiliation rates than the older cohorts ahead of them. For those 65 years and over 86 percent affiliated with a Christian religion and only 13 percent recorded no religious affiliation. (Statistics New Zealand, 2007d). The lack of inclusion of religion and faith as possible determinants of wellbeing is difficult to understand, given the affiliation rates, and the fact that most studies which test the relationship find positive associations (Koenig, 2001; Fry, 2001; Kirby et al., 2004; Sadler & Biggs, 2006).

As well as these differences in the religious affiliation rates of the midlife and older age groups, further diversity has occurred through the introduction of a variety of non Christian beliefs into New Zealand. This has occurred particularly since 1986 (Hoverd, 2008). Of the 'big 4' Christian denominations (Anglican, Catholic, Presbyterian and Methodist) three have declined significantly, Catholicism being the exception, increasing 4.7 percent from the 2001 census (Statistics New Zealand, 2007a). The proportion stating, 'No religion' have grown from 16.4 percent of the total population in 1986 to 33 percent in 2006. Hinduism is now the fifth largest religious affiliation in New Zealand, and the largest non-Christian one. These changes are reflected more in the midlife population than the older group, but not as dramatically as in the younger cohorts that follow (Statistics New Zealand, 2007b).

### *2.2.1 International Literature on Religion, Wellbeing and Health*

In the following studies religious attendance and spirituality have been shown to be associated with wellbeing. The terms *religion* and *spirituality* were defined at the beginning of this chapter, and those definitions are applicable to these studies.

Frequent religious attendance was found to be associated with higher levels of subjective psychological wellbeing across the three dimensions that were measured (positive affect, negative affect and life satisfaction) in a National Midlife in the United States (MIDUS) study (Greenfield & Marks, 2007). The authors considered the associations were explained by the individual's religious social identity. More frequent religious participation was associated with having a stronger religious social identity, which was further associated with higher levels of subjective psychological wellbeing. Similarly, in a study of African American women at midlife that focussed on spirituality and religiosity (in this study 'religiosity' referred to religious practice), a significant positive correlation was demonstrated between spirituality and life satisfaction (Starks & Hughey, 2003). There was also a moderate correlation between age and religiosity. No significant correlation was found between life satisfaction and age, education or income for these women.

Likewise, frequent religious attendance was significantly linked with the top quartiles of both health and psychological wellbeing (across all the three measures of autonomy, personal growth and purpose in life) for both college and high-school educated women in an earlier MIDUS study (Ryff, Singer & Palmersheim, 2004). However, high religious engagement was also significantly linked to high-school educated women with low health and psychological wellbeing, which raises questions about the direction of causality. The findings were more qualified for men, with similar positive associations for the college educated group, less so for the high school educated group, but those with low health outcomes were more likely to have histories of high religious involvement.

Wellbeing can also be measured through health indicators. In a US study of midlife adults and adolescents, the spirituality components of spiritual wellness, meaning or purpose in life, inner resources, unifying interconnectedness and transcendence were positively correlated with each other, but negatively correlated with depression for both groups (Briggs & Shoffner, 2006). The midlife adults, aged 35-50, had higher scores on all the measures except purpose in life than the adolescents, and lower depression scores. Results of multiple regression analysis showed that lower levels of depression were significantly related to higher levels of meaning and purpose in life.



Similar results were found in a study of midlife African Canadian women, which applied qualitative and quantitative measures to the study of depression (Etowa et al., 2007). Depression for these women was often associated with a chain of events including concerns for their children and families; grief, loss and stress of death; racism; menopause; and anxiety and pain related to illness. Of the supports identified by the women to help deal with depression, by far the most common was the women's faith and spirituality. Two particular aspects of this were prayer and being able to 'talk with the Lord'. In this way the Black church offered not only spiritual fulfilment but a range of social, psychological and other support roles.

However, unlike the studies above, religious involvement and spirituality did not appear to produce better outcomes in a prospective study of adult development that followed an original group of Harvard sophomores (Vaillant et al., 2008). Religious and spiritual involvement in midlife was not found to be correlated with physical, mental and social wellbeing in late life. Furthermore, differences could not be found between the measures of religiosity and spirituality, where the men who scored high on religious items were almost universally high scoring on the spiritual items. The authors suggested that with such a highly educated sample, the protective effects of high SES on health may replace those of religious involvement for less educated samples.

In general, the studies that have investigated the relationship between religion and spirituality with health and wellbeing in most cases provide evidence of a positive association. There are however, some contrary findings, suggesting that other variables may be exerting a greater influence. This is a difficult area of research because the transcendent nature of religious and spiritual experience is difficult to measure and compare. Furthermore, religious organisations often seek out those who are unwell or marginalised which may skew some sample populations.

### **3. Methods**

The data used in this chapter were in two parts: the first investigated cultural and ethnic associations and the second investigated religious and spirituality associations.

With regard to culture and ethnicity, differences and associations were sought only between Māori and non-Māori, according to indicators of: (i) demographic variables, (ii) social factors, (iii) overall wellbeing and (iv) cultural activities.

The demographic variables included ethnicity, gender, age, marital status, household type and household location. Social factors covered health, educational qualifications, personal income and housing tenure. The self-report scale SF-12 was used to measure physical and mental health status. The three other social factors were highest educational qualification, personal income and housing tenure.

#### *3.1 Indicators of Māori Cultural Activities*

The cultural activities factors were Māori language (for Māori respondents), religious practice, faith and leisure. The question was asked whether they could have a conversation in Māori covering everyday things. Two questions were asked with regard to religious practice and faith. The first enquired as to how much they practiced religion, attended services or otherwise participated in religious activities. The second asked how important faith was to them (see 3.2 below for why this particular question was chosen). Two further questions were asked about leisure (see 3.4 below). The leisure questions included participation and leadership in a Māori organisation, attendance at a funeral or tangi and participation in a school or kohanga reo organisation.

#### *3.2 Indicators of Religious Activities*

The religious and spirituality questions focussed on religious affiliation, their perceived importance of faith, and the relationship of faith to participation in religious activities, wellbeing, ethnicity and leisure pursuits. Faith was chosen because, as defined at the beginning of this chapter, it refers to

belief or trust in a religion or aspects of it, and faith can exist whether or not a person participates communally in religious practice. It signifies an involvement in and positive attitude to religious things but not necessarily an institutional commitment. This was considered preferable to the researchers than the broader notion of spirituality, which embraces many more people and is less defined. From the policy perspective of this research, the investigators were primarily interested in the practice of religion institutionally or in a derived more subjective form, to better understand census religious affiliation data and the contribution of religion to wellbeing.

Participants' religious affiliation was sought through a standard question. The importance of faith and its relationship to participation in religious activities was assessed in the same manner as it was in the ethnicity data noted above, by asking the question on the importance of faith and another on participation in religious activities.

### *3.3 Indicators of Wellbeing*

Overall subjective wellbeing was assessed with the World Values Survey question on Wellbeing. A further question was asked about participants' satisfaction with their cultural identity and involvement.

### *3.4 Indicators of Participation in Leisure Activities*

Two sets of questions were asked about leisure. The first asked if they had participated in any of a list of clubs or organisations in the last month and if they exercised a leadership role in the organisation. The list was very wide and included sports clubs, choirs, ethnic organisations and many more. The second asked if the respondent had participated in particular activities. Again, the list was wide and included cafes, hui (Māori meeting), libraries and many others.

### *3.5 Data Analysis*

The tables and figures below summarise these results. They do not include non-responses, don't knows, or refusals, and as a result, frequency totals may not be the same between different tables. The data have been re-weighted to make the results more representative of the New Zealand population aged 40 to 64, as noted in the Introduction.

## **4. Results**

### *4.1 Culture and Ethnicity*

As noted at the beginning of this chapter, the ethnic diversity of those 40 to 64 years in New Zealand is less than for the population as a whole. The respondents in this survey displayed even less diversity than the census data for the same age range (noted at the beginning of this chapter), although the trends were in the same direction (Statistics New Zealand, 2007a). Table 11.1 sets out the frequencies for the four main ethnic groups.

The results show that the numbers in the Asian and Pacific groups are too small to warrant comparative statistical calculations. The Māori group numbers, though small, are sufficient to support comparative analysis and qualified conclusions that can be compared with trends in the census data and other studies, for example. The larger than expected number of European/Pakeha may be a result of the telephone interviewing methodology, suggesting they may either be more comfortable with a telephone survey or more are available for greater lengths of time to answer the phone. The following analysis will compare Māori and non-Māori on a range of indicators.

Table 11.1

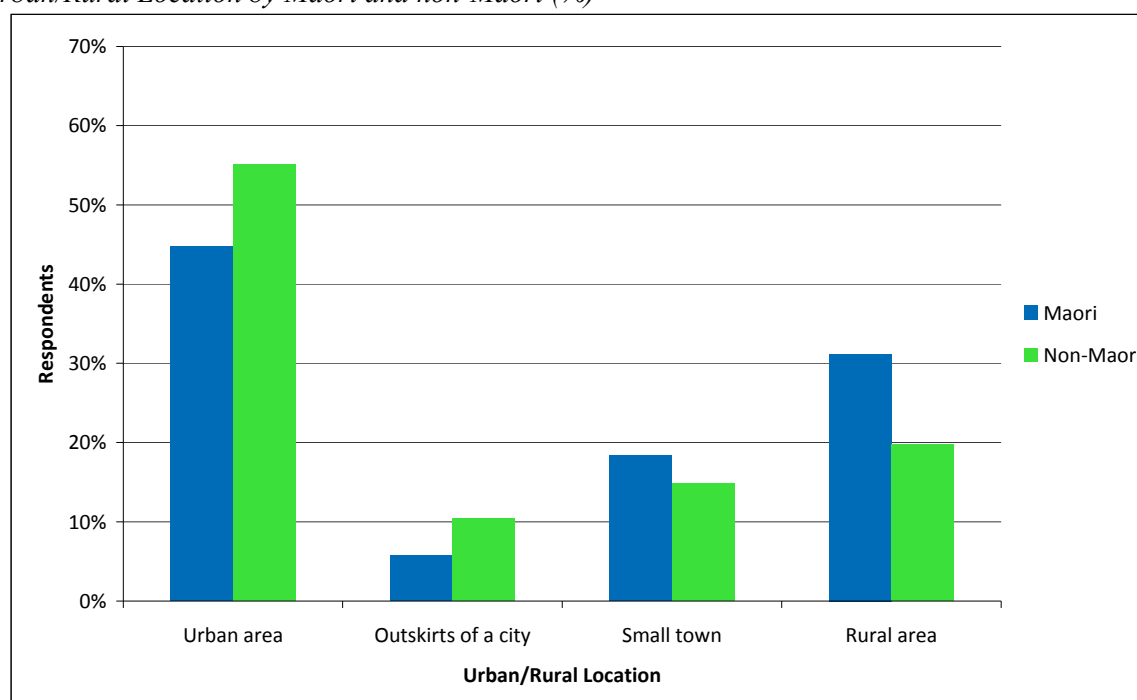
*Frequencies of Prioritised<sup>260</sup> and Un-prioritised Ethnicity of 40-64 year-olds in EWAS sample*

|                 | Prioritised |         | Un-prioritised |         |
|-----------------|-------------|---------|----------------|---------|
|                 | Frequency   | Percent | Frequency      | Percent |
| Pakeha/European | 1,697       | 86.7    | 1,767          | 90.5    |
| Māori           | 141         | 7.3     | 141            | 7.3     |
| Pacific         | 26          | 1.3     | 28             | 1.3     |
| Asian           | 64          | 3.2     | 67             | 3.4     |
| Other           | 26          | 1.3     | 26             | 1.3     |
| Total           | 1,953       | 100.0   | 2,029          | 103.8   |

#### 4.1.1 Living Arrangements of Māori and non-Māori

Māori participants were significantly more likely to be living in rural areas and small towns, and less in urban areas, than non-Māori,<sup>261</sup> as Figure 11.1 shows. 31.2 percent of Māori and 19.7 percent of non-Māori lived in rural areas, for example. 18.4 percent of Māori and 14.8 percent of non-Māori lived in small towns, whereas 44.7 percent of Māori and 55.1 percent of non-Māori lived in urban areas. This probably reflects the desire of many Māori to live in or close to their tribal land.

Figure 11.1

*Urban/Rural Location by Māori and non-Māori (%)*

There were no significant differences for marital status or household type between Māori and non-Māori. This is different from the older group of 65 to 84 year-olds (see Waldegrave, 2009) where the percentage of widowed Māori were twice that of non-Māori, probably because of differences in life expectancy. However, there was a greater proportion of sole parent households among midlife Māori (11.3 percent) than non-Māori (7.1 percent) and fewer couples (69.7 percent as compared to 76.6 percent).

<sup>260</sup> Prioritised data is a classification which assigns the ethnicity of a person who has given multiple responses to just one ethnicity. This process ensures that the total number of responses equals the total population. In New Zealand, Māori has been accorded highest priority, then Pacific people, Asian and Pakeha/European respectively.

<sup>261</sup> Chi square statistic had a p-value of 0.002

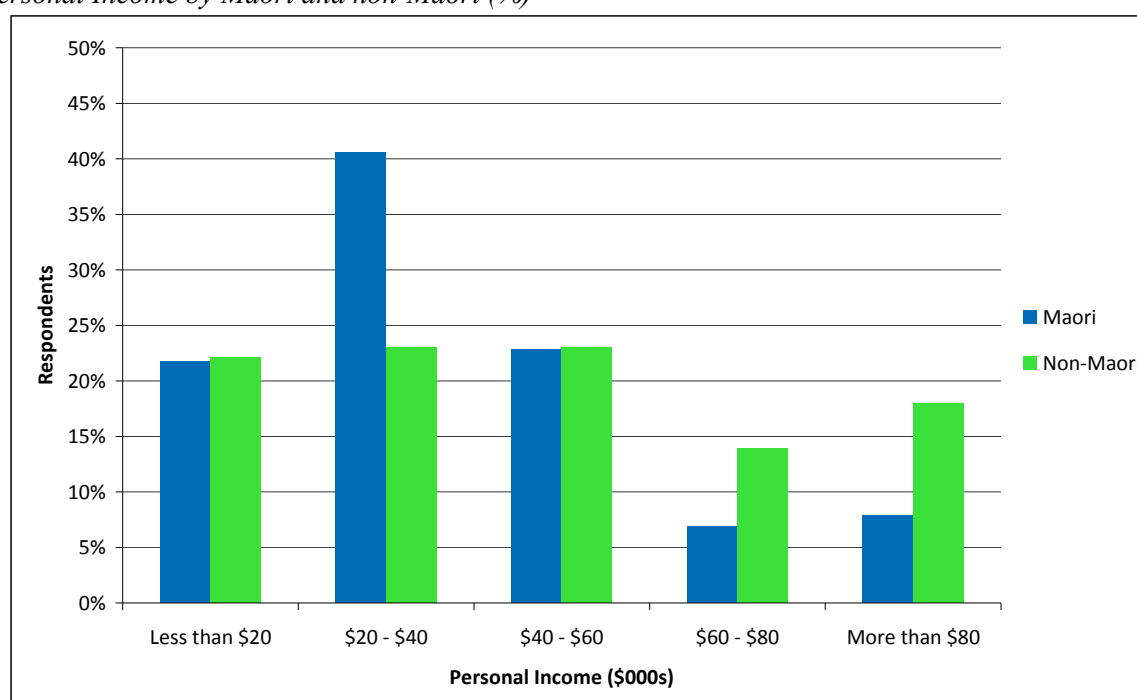
#### 4.1.2 Social Indicators

No significant differences between Māori and non-Māori were found in this study for gender, age, or self-reported health status. There was a tendency though for a greater proportion of Māori in the younger 5 year age bands and non-Māori in the older age bands.<sup>262</sup> For example 30.3 percent of Māori in this survey were aged between 40 to 44 years while only 23.2 percent of non-Māori were. 11.3 percent of Māori were aged between 60 to 64 years compared with 15.1 percent of non-Māori. This is congruent with the 2006 census data that shows very similar proportions of Māori and Pakeha/Europeans in these age bands (29.9 percent Māori and 24.0 percent non-Māori in the 40 to 44 band and 10.3 percent Māori and 14.5 percent non-Māori in the 60 to 64 year band) (Statistics New Zealand, 2007b).

Unlike the 65 to 84 year-old group (see Waldegrave, 2009), there were significant differences between Māori and non-Māori for both personal income<sup>263</sup> and educational qualifications,<sup>264</sup> which reflect the income and educational differences shown in census data (Statistics New Zealand, 2007e, 2007f). As Figure 11.2 shows, 62.4 percent of Māori participants lived on incomes of \$40,000 or less, whereas only 45.1 percent of non-Māori did. 7.9 percent of Māori had incomes of \$80,000 or more compared with 18 percent of non-Māori.

Figure 11.2

*Personal Income by Māori and non-Māori (%)*



There was only a small difference between the numbers of Māori and non-Māori whose highest qualification was up to primary or secondary school level. Māori had substantially more people whose highest educational attainment was a vocational or trade qualification, whereas non-Māori had more whose highest educational attainment was a university qualification. 40.6 percent of Māori and 32.8 percent of non-Māori participants had vocational or trade qualifications, whereas 11.3 percent of Māori and 26.1 of non-Māori had attained university qualifications as Figure 11.3 shows.

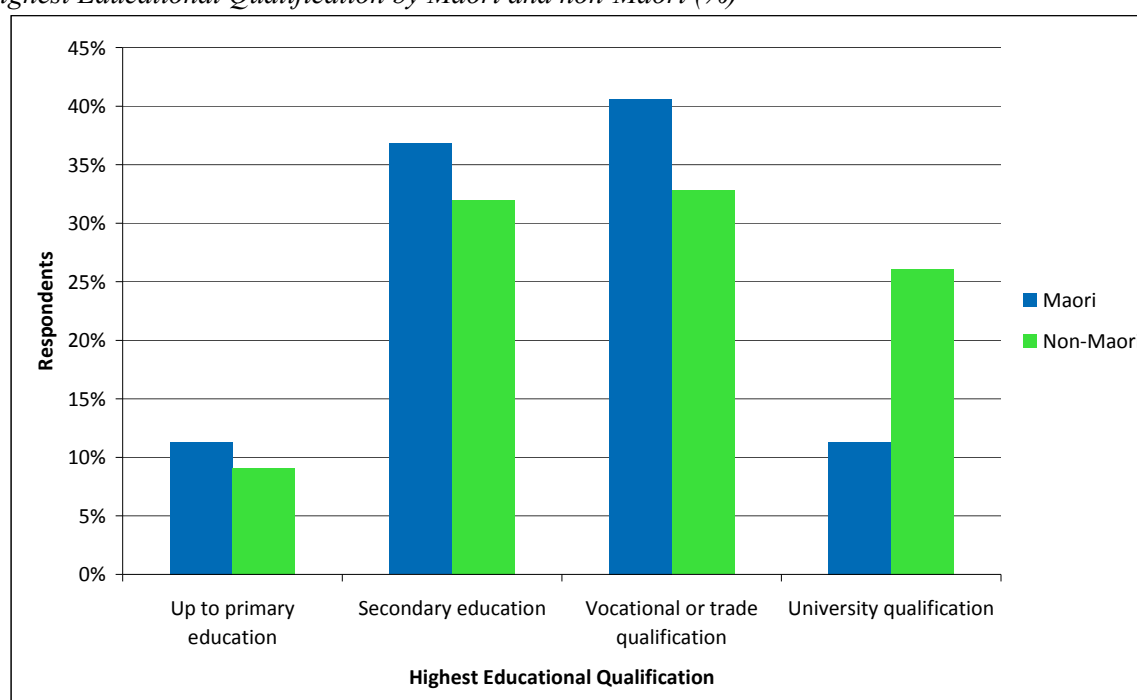
<sup>262</sup> Chi square statistic had a p-value of 0.056

<sup>263</sup> Chi square statistic had a p-value of < 0.001

<sup>264</sup> Chi square statistic had a p-value of 0.002

Figure 11.3

*Highest Educational Qualification by Māori and non-Māori (%)*



There were modest differences in both housing tenure<sup>265</sup> and respondents' assessment of the adequacy of their income to meet their everyday needs for such things as accommodation, food, clothing and other necessities.<sup>266</sup> 75.0 percent of Māori compared with 83.8 percent of non-Māori owned their own homes, whereas 23.6 percent of Māori and 14.8 of non-Māori were renters. 50.4 percent of Māori reported having enough or more than enough money to meet their everyday needs, compared with 57.1 percent of non-Māori.

#### 4.1.3 Wellbeing of Māori and non-Māori

No significant relationship was found between Māori and non-Māori assessment of how satisfied they were with their life as a whole. Both groups expressed high and similar levels of satisfaction, with Māori (83.0 percent satisfied or very satisfied) slightly higher than non-Māori (81.8 percent). Surprisingly, non-Māori were more satisfied with their cultural identity and involvement than Māori participants.<sup>267</sup> 92.5 percent of Māori were satisfied, whereas 96.6 percent of non-Māori were satisfied. This result could reflect conflict some Māori may experience between their identity in the Māori world and the dominant mores in the rest of New Zealand society.

#### 4.1.4 Māori and non-Māori Cultural Activities

There were a number of questions asked about cultural activities and expression in areas such as language, faith, social involvement and leadership. Māori and non-Māori responses were compared.

**Māori Language.** 39 percent of the Māori participants stated they could hold a conversation in Māori covering everyday things. Although this figure is considerably lower than the older group (52 percent – Waldegrave, 2009), it is higher than the Census figure for the same age group of 40 to 64 years, which showed 28.5 percent of Māori could have a conversation about everyday things in Māori (Statistics New Zealand, 2007f). By contrast, only 1.7 percent of non-Māori could do the same. The smaller percentage of Māori in midlife who can speak the language when compared with the older group is not unexpected. Many in this midlife group would have experienced the post-war migration

<sup>265</sup> Chi square statistic had a p-value of 0.021

<sup>266</sup> Chi square statistic had a p-value of 0.034

<sup>267</sup> Chi square statistic had a p-value of 0.017

from rural areas to the cities where cultural traditions have not been as well preserved, and only a few would have benefitted from the drive to regain the language through te kohanga reo and other significant Māori language initiatives.

*Leisure.* When the participants were asked about their participation and leadership in a large range of leisure and service organisations, few differences were found between Māori and non-Māori, apart from participation in Māori organisations, which showed a significantly positive difference in favour of Māori,<sup>268</sup> as one would expect. There was a tendency (non-significant) for Māori to be more involved in RSAs, Workingmen's Clubs and women's organisations. However, no differences were found for participation in sports clubs; community or service organisations that help people; trade unions or professional associations; political parties; religious or church organisations; choir, drama or music societies; hobby or leisure time associations; school or kohanga reo organisations; ethnic organisations other than Māori; or other clubs, lodges or similar organisations.

A separate set of questions enquired into the range of activities people had participated in over the last month. Four demonstrated significant differences between Māori and non-Māori. There were positive associations between being Māori and having been to a funeral or tangi<sup>269</sup> and having been to a TAB, casino or horse or dog track<sup>270</sup> during the last month. Māori were also more likely (non-significantly) to have attended a spectator sporting event. There were positive associations between being non-Māori and going to a restaurant or café<sup>271</sup> and participating in an outdoor activity like cycling walking or gardening<sup>272</sup> during the last month.

No significant differences were found between Māori and non-Māori concerning the frequency of practicing religion, attending services or religious activities. Likewise, no differences were found concerning the importance of faith to them. This latter result contrasts with that of the older group, where Māori attached significantly more importance to faith (Waldegrave, 2009). The two results that showed significance with both age groups were participating in a Māori organisation and attending a funeral or tangi, both of which demonstrate Māori cultural norms.

## 4.2 Religion and Faith

### 4.2.1 Religious Affiliation

The religious affiliation of the midlife group was substantially Christian, but there was a much smaller proportion of the 40 to 64 year-olds than the 65 to 84 year-olds in the earlier survey (see Waldegrave, 2009). As Figure 11.4 below shows, 57.2 percent of participants in this study were Christian and 38.5 percent had no religious affiliation. The 2006 Census showed 64.7 percent of New Zealanders aged between 40 and 64 years were affiliated to some form of Christian religion, compared with 86 percent of those 65 years and over. 28.2 percent of the midlife group stated no religious affiliation (Statistics New Zealand, 2007b). By contrast, the distribution of religious affiliation in the total population was 57.2 percent for Christian denominations and 37 percent for no religion. As with the earlier study of older people, the proportion affiliated to Christian religion was lower than the Census figure, and the proportion stating no religious affiliation was higher. 4.3 percent were affiliated to religions other than Christianity, but each of those religions had less than 2 percent affiliation.

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<sup>268</sup> Chi square statistic had a p-value of < 0.001

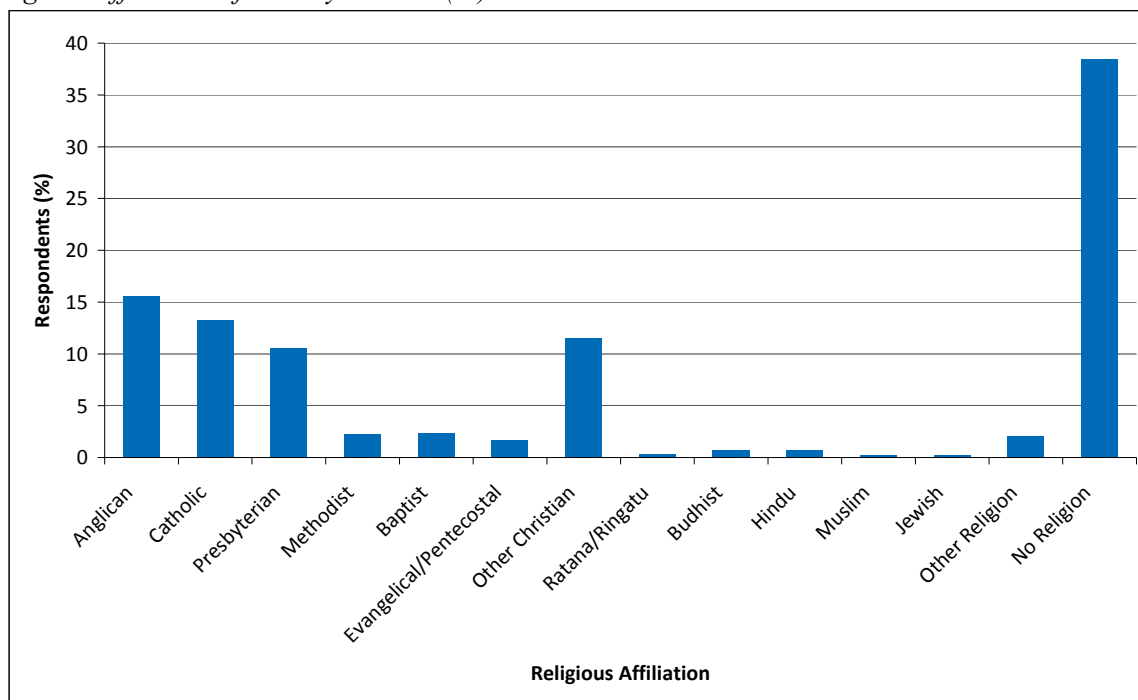
<sup>269</sup> Chi square statistic had a p-value of < 0.001

<sup>270</sup> Chi square statistic had a p-value of 0.001

<sup>271</sup> Chi square statistic had a p-value of 0.002

<sup>272</sup> Chi square statistic had a p-value of 0.001

Figure 11.4  
*Religious Affiliation of 40-64 year-olds (%)*



#### 4.2.2 Importance of Faith and Religious Participation

Participants were asked first if faith was important to them, and, if they answered in the affirmative, how important it was to them. The questions received a 59.3 percent response rate (N = 1,161). This was a considerably lower response rate than for the older group (74 percent – Waldegrave, 2009), probably reflecting the lower religious affiliation rates and possibly a lower level of interest in religion for this age group. 71.7 percent considered their faith was either extremely important to them (39.1 percent) or reasonably important to them (32.6 percent). 8 percent thought faith had a little importance and 20.3 percent thought it had no importance at all. Caution needs to be exercised with these results because of the response rate.

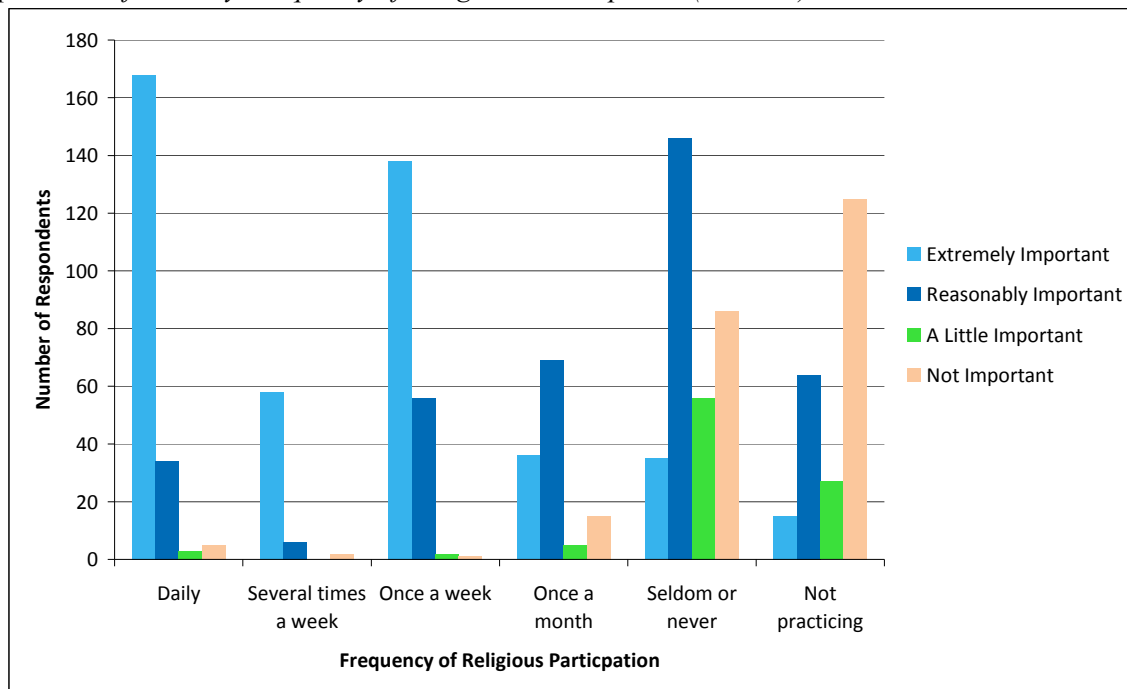
The lower than expected response rate to this question raises a number of questions. It is possible that those who did not consider faith to be important might not bother with this question, but in fact 20 percent of those who responded did not consider faith to be important, which, at least in part, rules out that hypothesis. A minimum and maximum result to the question can be devised. If the 832 participants who stated that faith was important to them are taken as a proportion of the total sample, rather than as a total of those who responded to the question, then the minimum would be 42.5 percent. The maximum would be derived from assuming the 1,161 people who responded to the question are representative of the total sample, giving the result of 71.7 percent. Either way, a substantial number of participants considered faith to be important.

The researchers were interested in the relationship between the importance participants placed on faith, and their participation in religious activities. A significant relationship<sup>273</sup> between them was found, as set out in Figure 11.5. The bars in the chart that indicate faith was extremely important to respondents', completely dominate the high frequency categories (daily, several times a week and once a week). 41.1 percent practiced their religion once a week or more, and they made up 80.9 percent of those who considered their faith to be extremely important.

<sup>273</sup> Chi square statistic had a p-value of 0.001

Figure 11.5

*Importance of Faith by Frequency of Religious Participation (N=1161)*

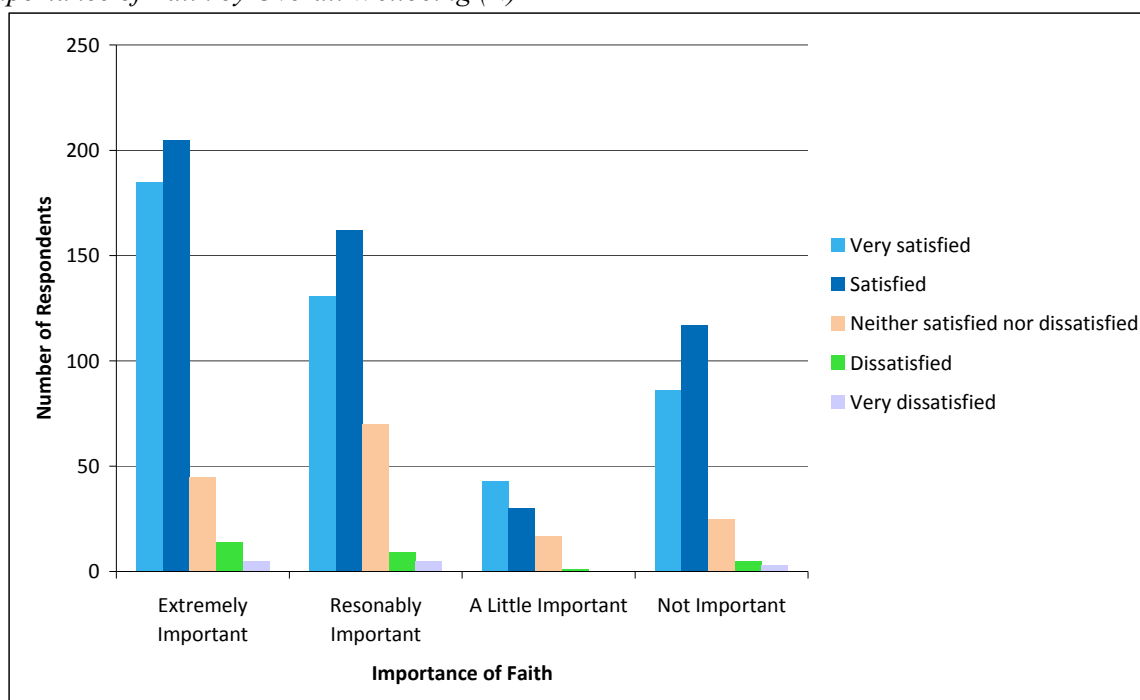


#### 4.2.3 Importance of Faith and Overall Wellbeing

There was a modest but significant relationship<sup>274</sup> between the importance of faith to participants and overall wellbeing. Figure 11.6 shows the positive association between respondents for whom faith was important and their level of overall satisfaction with life. This association is consistent with the literature noted earlier (Starks & Hughey, 2003; Ryff, Singer & Palmersheim, 2004; Greenfield & Marks, 2007).

Figure 11.6

*Importance of Faith by Overall Wellbeing (N)*



<sup>274</sup> Chi square statistic had a p-value of 0.011



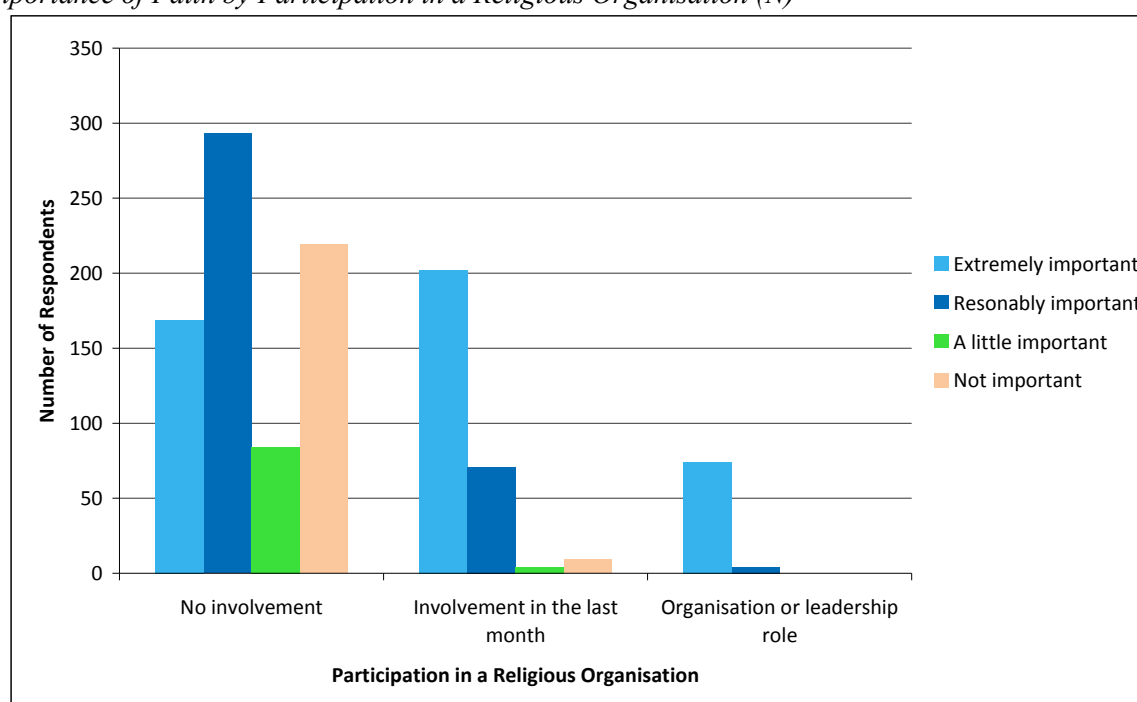
Unlike the older group, there were no significant gender differences for either the importance of faith or the practice of religion. There were also no statistically significant associations between the importance of faith and age, income, assets, educational qualifications, physical and mental health, and ethnicity (Māori /Pakeha-European).

#### 4.2.4 Importance of Faith and Leisure Time Pursuits

A significant relationship<sup>275</sup> was found between the importance of faith, and participation and leadership in religious or church organisations in the last month, as would be expected. Figure 11.7 shows 94.9 percent of those who exercised leadership and 70.6 percent who had simply been involved during the last month, considered faith to be extremely important.

Figure 11.7

*Importance of Faith by Participation in a Religious Organisation (N)*



Positive associations were also found between the importance of faith and participation in a community or service organisation that helps people<sup>276</sup> (as shown in Figure 11.8), participation in choir, drama or music societies<sup>277</sup> (data not shown) and with participation in a Māori organisation<sup>278</sup> (data not shown). However, unlike the older group, no significant association was found with participation in women's organisations. Figure 11.8 shows that 54 percent of those who exercised leadership in a community or service organisation that helps people and 47.8 percent who had simply been involved during the last month, considered faith to be extremely important.

<sup>275</sup> Chi square statistic had a p-value of < 0.001

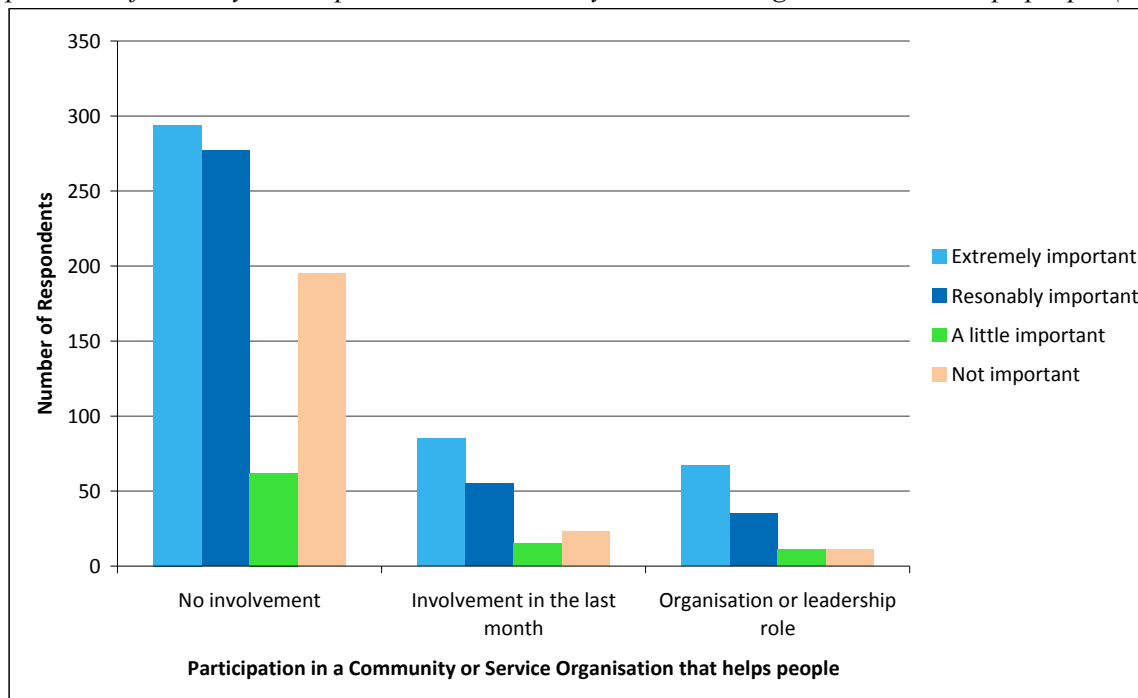
<sup>276</sup> Chi square statistic had a p-value of < 0.001

<sup>277</sup> Chi square statistic had a p-value of 0.001

<sup>278</sup> Chi square statistic had a p-value of 0.002

Figure 11.8

*Importance of Faith by Participation in a Community or Service Organisation that helps people (N)*



The positive associations found between the importance of faith and participation in a community or service organisation that helps people, in choir, drama or music societies, and in a Māori organisation, were somewhat predictable, because churches encourage community service and have choirs, and Māori culture has strong expressions of spirituality, even though significant ethnic differences were not recorded for the importance of faith question. No significant associations were found between the importance of faith and participating in sports clubs, trade union or professional associations; political parties; hobby or leisure time associations; school or kohanga reo organisations; RSA or Workingman's Club; ethnic organisations that were not Māori; or clubs, lodges, etc.

## 5. Conclusion

Significant differences between midlife Māori and non-Māori were found for urban/rural location, personal income and educational qualification. Māori were more likely to live in rural areas and small towns, receive lower incomes, and have vocational and trade qualifications or lower. They were also less likely to own their own homes and less likely to consider they had enough money to meet their everyday needs. These results confirm those of other studies that point to lower socio-economic status for Māori when compared with non-Māori, despite improvements in most social indicators as noted in the literature section of this chapter. Interestingly, significant differences were not found for gender distribution, age category, or self-reported health status.

The midlife Māori rate of overall subjective wellbeing was high, and almost identical with non-Māori, (in fact 1 percentage point higher than non-Māori), which suggests that this age group is generally satisfied with life. This implies a considerable degree of resilience in the light of the colonial history and some continuing inequities. Similar resilience was shown by minority and marginalised cultural groups in the literature section and may also explain the lack of difference found in self reported health status. The results showed a higher level of Māori involvement in cultural activities, with 39 percent able to speak Māori conversationally, a significantly higher level of participation in Māori organisations and events and a significantly greater attendance at funerals or tangi during the last month. These results were unsurprising, given the flourishing nature of Māori cultural expression in

New Zealand today. They were similar to those of the older Māori in the earlier survey, except fewer spoke the language conversationally (Waldegrave, 2009).

The numbers of midlife New Zealanders stating religious affiliation (61.5 percent) were below the census number for those aged 40 to 64 years, which was 72 percent. 71.7 percent considered their faith to be either extremely or reasonably important to them. This result was significantly associated with religious practice, which showed that 41 percent practiced their religion, attended services or otherwise participated in religious activities once a week or more. However the response rate to the question concerning the importance of faith was low, at around 60 percent, so the results need to be treated with some caution.

A significant relationship was found between the importance of faith to participants and overall wellbeing. This result is congruent with most of the literature. It is interesting, because only a percentage of studies assess religion and spirituality as a determinant of wellbeing.

A significant relationship was also found between the importance of faith and participation and leadership in religious or church organisations in the last month. Other positive associations were demonstrated between the importance of faith and participation in a community or service organisation that helped people, in a choir, drama or music societies and in a Māori organisation. Each of these relationships were congruent with the culture and practices of religious organisations and the spiritual nature of Māoritanga.

No significant associations were found between the importance of faith and a range of standard social indicators, which included income, assets, physical and mental health, household type and educational qualifications.

From the perspective of the policy implications of this research, Māori show high levels of wellbeing and strong participation in their culture. The literature also shows substantially improved outcomes on key social and economic indicators in the recent past. Despite this, significant negative differences were shown in this research to persist between Māori and non-Māori for income, educational attainment, housing tenure and perceptions about the adequacy of their incomes to meet their everyday needs. The policy goals that have led to greater recognition of the Treaty of Waitangi, enhanced decision making power, increased self determination in the provision of services, critical attention to improving social outcomes and a growing economic power base appear to be enhancing Māori wellbeing and resilience. Although substantial progress has been made, the results here show that there is a longer road to travel and these types of policy goals need to be further developed and enhanced.

The high levels of religious affiliation, alongside the substantial numbers of midlife New Zealanders who participate frequently in religious practices, as well as those who consider faith to be important, suggests this age group may not be as secularly-minded as has been generally thought. As the literature shows that both religion and spirituality can enhance wellbeing and health, greater recognition could be accorded these areas in the delivery of health, welfare and judicial services. This is not to suggest there should be some imposition of religion on persons, but that mainstream services draw on clergy and religious leaders to work with those for whom a faith dimension is significant to them. The results in this chapter suggest the Ministries of Health and Justice funding of Hospital and Prison Chaplains should be encouraged and further developed in order to help religious people draw upon their faith and thus enable better and more sustainable health and wellbeing outcomes for them.

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# Chapter 12: The Wellbeing of Midlife New Zealanders – An Overview

Charles Waldegrave and Peggy Koopman-Boyden

## 1. Executive Summary

From the survey of 1,958 people aged 40-64 years in 2008, the results suggest that most 40-64 year-olds feel satisfied with their lives (81.8 percent), and that this high level of subjective wellbeing is associated with the following social indicators:

- Good health
- A higher personal income
- A higher level of asset wealth
- Home ownership
- An expectation of rights and entitlements that include financial security, family support and access to health and residential care
- Living with a partner
- Current or most recent employment status
- Not having long periods outside the workforce during their working lives – for men
- A higher level of educational qualifications
- More likely to be older when finished schooling
- Participation in leisure and recreational activities
- Participation in community organisations
- Easy access to amenities like shops and public transport
- Not going without essential items and services
- Experiencing safety around the home and the neighbourhood
- Seeing the neighbourhood as safe at night
- Considering religious faith to be important

## 2. Focus of the Research

The research programme involved two large surveys, simulated projections and case studies. The earlier survey included 1,680 respondents aged 65 to 84 years (see Koopman-Boyden & Waldegrave, 2009), and this survey covered 1,958 respondents aged 40 to 64 years.

The central focus of the survey research reported here was to investigate the level of wellbeing of midlife New Zealanders, and the determinants of this wellbeing, both in any direct relationship with wellbeing, and through any indirect (or intermediate) relationships with wellbeing. This involved using both a subjective and a capabilities approach to wellbeing (see Chapter 1) and its determinants. The research was also interested in possible ways to improve the wellbeing of people in midlife as they prepare to move into the older age groups of those 65 years and older; hence the title of the research programme: Enhancing Wellbeing in an Ageing Society (EWAS).

The theoretical background and conceptualisation of *wellbeing* for this research programme is located within the extensive literature on the subject, and consequently combines elements of both hedonic and eudaimonic wellbeing; a subjective sense of satisfaction and the ability to access resources, along with the capability to do something with them (see Chapter 1 and King & Waldegrave, 2009). Thus, wellbeing in this research involves people experiencing a sense of satisfaction with life, and possessing the capabilities to achieve a good quality of life. This conceptualisation is consistent with current developments across disciplines and the views of stakeholder groups questioned at the

beginning of the research programme. Such a broad conceptualisation of wellbeing is necessary to take into account the social context in which wellbeing is achieved. A broad conceptualisation is also necessary to give sufficient scope to identify the policy changes that will assist in achieving wellbeing. Such policy changes should aim to maintain and increase levels of wellbeing in all sections of an ageing society.

As with many studies on wellbeing, this research has enquired into participants' subjective feelings of satisfaction, and, in particular, their overall satisfaction with life. It has also recorded their subjective feelings of satisfaction in relation to specific domains like health, work, income and safety.

However (as noted in Chapter 1), people can adjust their feelings and expectations to worsening (or improving) conditions, with the result that material changes in people's lives are not always fully reflected in subjective measures. Other measures that focus on people's access to resources and their capabilities are able to help overcome this problem. For this reason, information was sought from survey respondents about their participation and achievement in each capability area (or wellbeing domain). This was set alongside the subjective measures of satisfaction to provide a broad view of how capability and satisfaction contribute to wellbeing.

The ten "domains" of wellbeing in the Ministry of Development's Social Report (Ministry of Social Development, 2008) were chosen as the basis for the collection of both subjective and objective data on wellbeing, although the content and some titles were modified (see Chapter 1). The Ministry, for example, does not seek information on subjective feelings of satisfaction, nor participation in religion and the importance of faith, and its definition of Rights covers different territory from that covered in this survey. Nevertheless the ten broad domains of the Ministry's annual Social Reports have been used to structure this monograph under the following domain areas.

- |                               |                          |
|-------------------------------|--------------------------|
| • Health                      | • Leisure and Recreation |
| • Education                   | • Living Arrangements    |
| • Work and Retirement         | • Safety                 |
| • Economic Standard of Living | • Social Connectedness   |
| • Rights and Entitlements     | • Culture and Religion.  |

These ten domains provide a broad coverage of the capabilities, needs and subjective areas of satisfaction that is consistent with the theoretical approach adopted in this research.

In each of the chapters, the domain areas were related to:

- (a) the socio-demographic variables of age, gender and marital status;
- (b) overall subjective wellbeing (measured by the level of satisfaction with life and referred to as Overall Wellbeing);
- (c) domain subjective wellbeing (measured by the level of satisfaction with each of the specific domains and referred to as Domain Wellbeing or Domain Satisfaction, e.g. Work Wellbeing or Work Satisfaction);
- (d) a variety of other subjective and objective indicators appropriate to each domain (e.g. health, education, income, level of urbanisation, perception of safety at night, perception of rights and entitlements, leadership, etc).

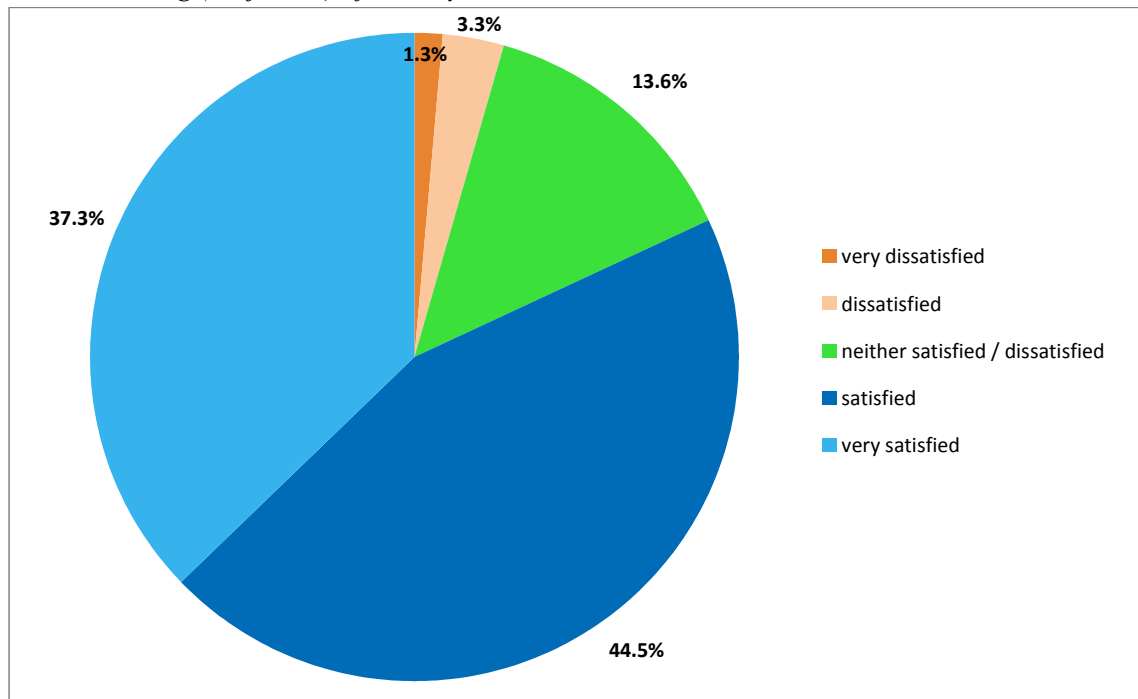
A general summary and discussion of the research findings follows.

### 3. What is the Level of Overall Wellbeing among 40-64 year-olds? (Overall Subjective Wellbeing)

The level of overall subjective wellbeing of midlife New Zealanders shown in this research is high. As Figure 12.1 shows, 81.8 percent of the respondents were either 'very satisfied' or 'satisfied' with their life, and only 4.6 percent were 'very dissatisfied' or dissatisfied'. A further 13.6 percent were undecided.

Figure 12.1

*Overall Wellbeing (subjective) of 40-64 year-old New Zealanders in 2008*

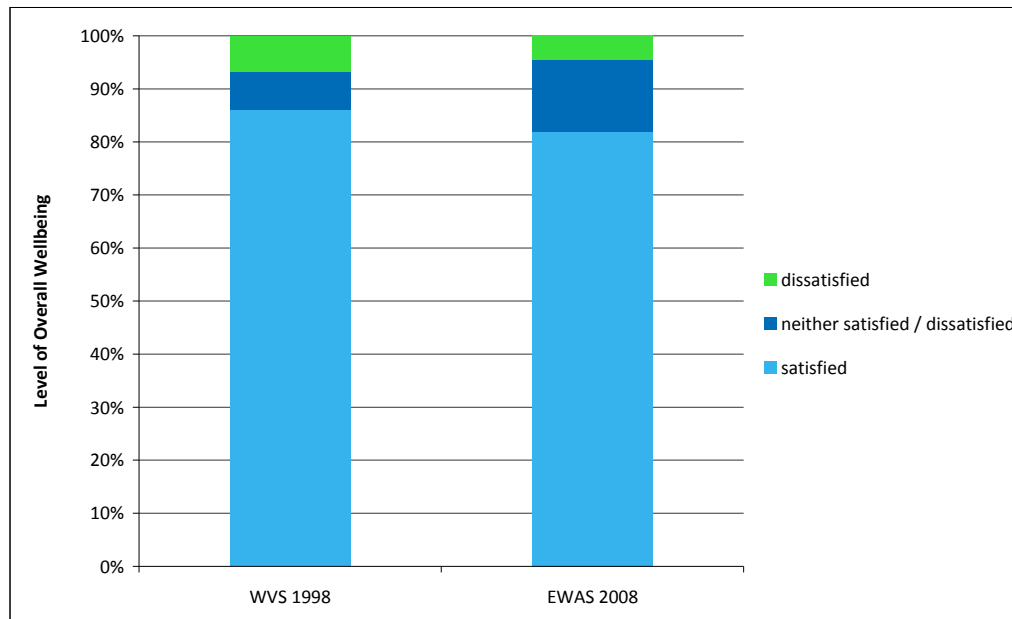


This high level of overall wellbeing among midlife New Zealanders has been stable for almost a decade, as is shown in a comparison of the New Zealand responses to the World Values Survey in 1998 and to the same World Values question used in the EWAS survey of 2008 (Figure 12.2). In 1998 the respondents 'satisfied' with their level of overall wellbeing accounted for 86.1 percent of the sample: in 2008 the same level of satisfaction was expressed by 81.8 percent of the EWAS sample, only a slightly lower level (4.3 percent).



Figure 12.2

*Overall Wellbeing (subjective) of 40-64 year-olds: Comparison between New Zealand World Values Survey 1998 and EWAS 2008*



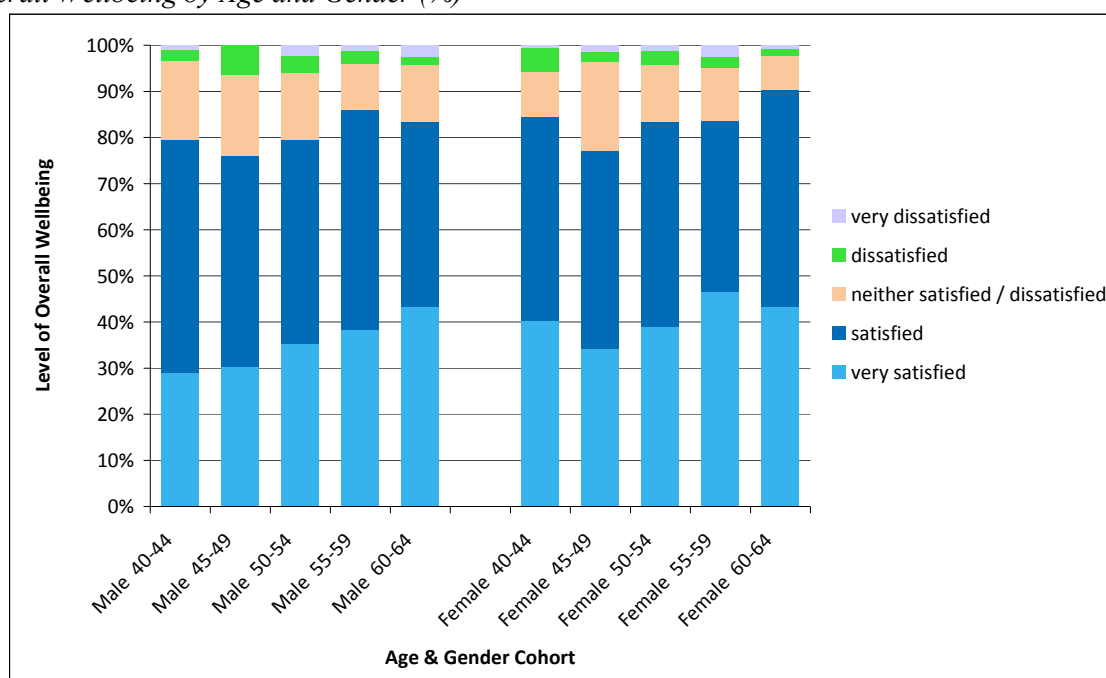
Given these high levels of subjective overall wellbeing, the research team was interested to discover if they were significantly associated with age, gender or marital status.

#### 4. Is Wellbeing Affected by Age, Gender or Marital Status?

No significant relationship between age or gender and overall wellbeing was found (see Figure 12.3). Older respondents in this age group did not experience higher or lower levels of wellbeing than younger respondents,, and neither did men compared with women.

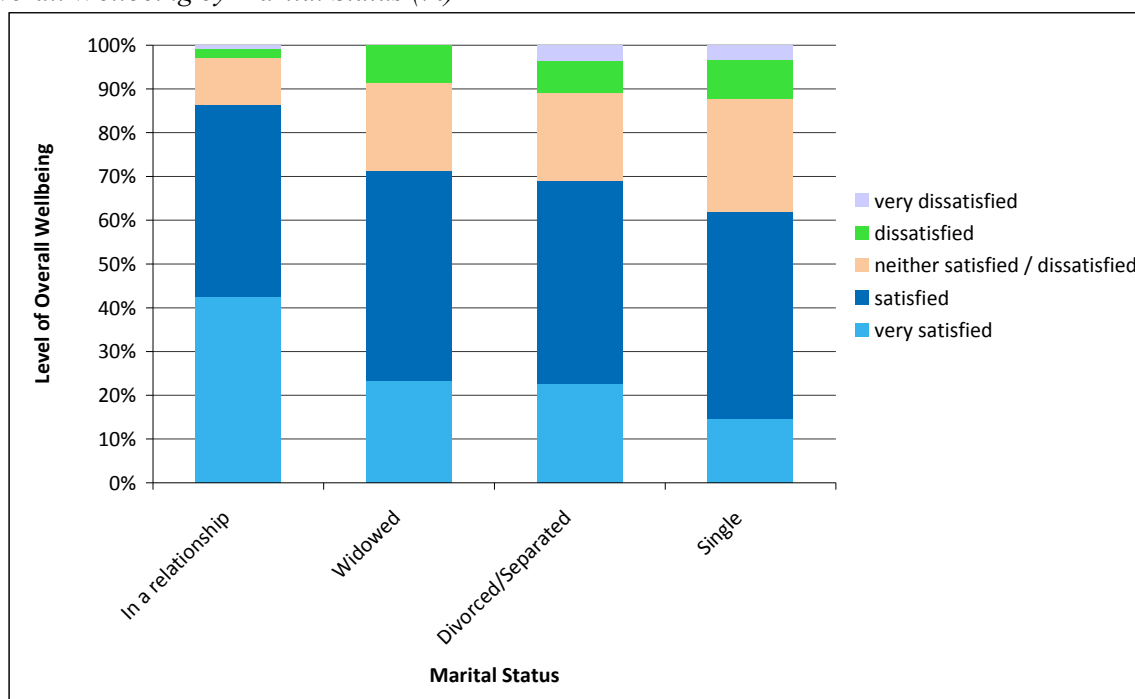
Figure 12.3

*Overall Wellbeing by Age and Gender (%)*



However, there was a significant difference in overall wellbeing in relation to marital status ( $p < 0.001$ ) (see Figure 12.4). Those living in a relationship had a higher level of overall wellbeing than any other status. Single people had the lowest level, while the widowed and the divorced/separated both had a higher level of overall wellbeing than single persons, but less than those in a relationship. This was a similar finding to that of the survey of 65-84 year-olds.

Figure 12.4  
*Overall Wellbeing by Marital Status (%)*



## 5. Is Wellbeing Associated with the Capability Indicators in the Wellbeing Domains?

Given the high levels of subjective wellbeing, the research team was also interested to discover from the findings in the previous chapters which capability variables were significantly associated with overall subjective wellbeing. The following domain indicators were all positively related to the level of overall subjective wellbeing as set out in Table 12.1: health (both physical and mental health), educational attainment, current or most recent employment status, income, asset wealth, home-ownership, participation in leisure and recreation, participation in community organisations, living with a partner, an expectation of basic rights in old age, experience and perception of safety, and a view that faith was important.

The domain of work and retirement was negatively related to wellbeing for men who had periods outside the workforce for at least a year. The domains of economic living standards and living arrangements were also negatively related to overall wellbeing for those who considered they had inadequate income to afford necessities, and those without easy access to amenities like shops and public transport..

Table 12.1

*Capability Indicators in the Domains and their Significant Association with Overall Wellbeing*

|   |
|---|
| <p style="text-align: center;"><b>p-value of &lt;0.001</b></p> <p><b>Those with a higher level of wellbeing were:</b></p> <ul style="list-style-type: none"> <li>• <b>Health:</b> Experiencing good physical and mental health.</li> <li>• <b>Education:</b> More likely to have higher qualifications</li> <li>• <b>Work:</b> In current or recent employment</li> <li>• <b>Economic Living Standard:</b> More likely to have a higher personal income, higher asset wealth, not going without essential items and services, and owned their own home. There was a negative association with those who considered they had inadequate income to afford necessities</li> <li>• <b>Rights and entitlements:</b> More likely to expect rights and entitlements that include financial security, access to health care, residential care and family support</li> <li>• <b>Leisure and Recreation:</b> Participating in more leisure and recreational activities</li> <li>• <b>Living Arrangements:</b> Living with a partner</li> <li>• <b>Safety:</b> Experiencing safety around the home and the neighbourhood, and consider the neighbourhood to be safe at night</li> <li>• <b>Social Connectedness:</b> Participating more in community organisations.</li> </ul> |
| <p style="text-align: center;"><b>p-value of &lt;0.01</b></p> <p><b>Those with a higher level of wellbeing were:</b></p> <ul style="list-style-type: none"> <li>• <b>Education:</b> More likely to have left school at an older age</li> <li>• <b>Work:</b> There was a negative association for men with more periods outside the workforce</li> <li>• <b>Living Arrangements:</b> Having easy access to amenities like shops and public transport.</li> </ul>   |
| <p style="text-align: center;"><b>p-value of &lt;0.05</b></p> <p><b>Those with a higher level of wellbeing were:</b></p> <ul style="list-style-type: none"> <li>• <b>Education:</b> More likely to have completed their highest qualification at an older age</li> <li>• <b>Living Arrangements:</b> More likely to consider living in a desirable neighbourhood important for continuing to live in the same place</li> <li>• <b>Social Connectedness:</b> More likely to have a higher number of social contacts</li> <li>• <b>Religion:</b> More likely to consider religious faith to be important.</li> </ul>  |
| <p style="text-align: center;"><b>p-value – Not significant</b></p> <ul style="list-style-type: none"> <li>• <b>Work:</b> No significant relationship with intentions to retire.</li> </ul>   |

## 6. Are the Ten Domains Affected by Midlifers' Satisfaction with each of the Domains?

The researchers were interested as to whether the domain indicators used, e.g. 'level of education attainment', 'perceptions of safety,' 'home ownership', etc, would be related to *the respondents' satisfaction* with (for example) education, safety and economic standard of living, respectively.

The research thus examined indicators of each of the ten domains (health, work, education, etc) and then considered their subjective feelings of satisfaction in relation to these ten domains; subsequently called "domain wellbeing" or "domain satisfaction", e.g. health wellbeing, work wellbeing, etc.

In most, though not all the domains, the relationships were significant, as Table 12.2 shows, for example. an increase in the rate of participation in leisure and recreation brought a higher level of satisfaction with leisure and recreation (leisure and recreation wellbeing), and greater asset wealth brought a higher level of satisfaction with their economic standard of living (economic standard of living wellbeing). At a common sense level this would seem to be reasonable - an increase in the level of a public or private good brings higher satisfaction with that public or private good.

Table 12.2

*Indicators of Domains and their Significant Associations with Domain Satisfaction and Wellbeing*

| p-value of <0.001 |  |
|-------------------|--|
| •                 | <b>Health:</b> Better physical and mental health are associated with greater satisfaction with health (Health Wellbeing)   |
| •                 | <b>Education:</b> A higher level of education, and older age when left school or completed highest qualification are associated with greater satisfaction with education (Education Wellbeing)   |
| •                 | <b>Work:</b> Higher current or most recent employment status is associated with greater satisfaction with work (Work Wellbeing)  |
| •                 | <b>Economic standard of living:</b> A higher personal income, higher asset wealth, not going without essential goods and services, and home ownership are all associated with greater satisfaction with economic standard of living (Economic Standard of Living Wellbeing)  |
| •                 | <b>Rights and Entitlements:</b> Expectations of support for rights and entitlements regarding financial security, access to health care, residential care, family support and support from government are positively associated with satisfaction with their rights and entitlements (Rights and Entitlements Wellbeing) |
| •                 | <b>Leisure and recreation:</b> Greater participation in leisure and recreation activities is associated with greater satisfaction with leisure and recreation activities (Leisure and Recreation Wellbeing)  |
| •                 | <b>Safety:</b> Greater positive perceptions of safety around the home, in the neighbourhood, and considering the neighbourhood to be safe at night is associated with greater satisfaction with personal safety (Safety Wellbeing)   |
| •                 | <b>Social connectedness:</b> Living with others, whether partnered or not, is associated with greater satisfaction with contacts with others (Social Connectedness Wellbeing).   |

## 7. Domain Wellbeing and the Significant Association with Overall Wellbeing

Capabilities can relate to both a wellbeing indicator like the level of education or asset accumulation for example, and to the level of satisfaction with that indicator. It is usually unclear as to how much each contributes to the experience of overall wellbeing. In some situations it may not necessarily be simply an increase in the amount of a public or private good which leads to a higher level of

wellbeing, but also the person's satisfaction with that public or private good which contributes to overall wellbeing.

Table 12.3 demonstrates the consistent associations between domain satisfaction and wellbeing with overall wellbeing.

Table 12.3

*Domain Wellbeing and the Significant Association with Overall Wellbeing*

|   |
|---|
| <p style="text-align: center;"><b>p-value of &lt;0.001</b></p> <p style="text-align: center;"><b>The following Domains of Satisfaction and Wellbeing were significantly associated with higher Overall Wellbeing:</b></p> <ul style="list-style-type: none"> <li>• Health Wellbeing</li> <li>• Education Wellbeing</li> <li>• Work Wellbeing</li> <li>• Economic Standard of Living Wellbeing</li> <li>• Rights and Entitlements Wellbeing</li> <li>• Leisure and Recreation Participation Wellbeing</li> <li>• Living Arrangements Wellbeing</li> <li>• Safety Wellbeing</li> <li>• Social Connectedness Wellbeing.</li> </ul> |
|---|

## 8. Other Significant Relationships

There were a number of other significant relationships across different domains. The most important are highlighted in the following paragraphs.

Higher levels of income, assets, and home ownership were all positively associated with a higher level of education and with marital/partnership status. Income was positively associated with physical health; housing tenure with mental health; and asset wealth with physical and mental health.

Higher levels of health, education and income were all positively associated with participation in leisure and recreational activities. Participation in community organisations was also significantly associated with higher levels of health, education and income.

Mental health status was positively associated with the experience of safety, while physical health status was associated with the perception of safety. Midlife women experienced and perceived safety less often than men. Loneliness was inversely related to both the experience and perception of safety.

Māori were more likely than non-Māori to live in rural areas and small towns. Māori also had lower incomes, with fewer owning their own homes and lower levels of self rated health than non-Māori. Māori were more active in cultural activities, including language, Māori gatherings and tangi/funerals.

A substantial number of participants considered their faith to be extremely or reasonably important to them. The importance of faith was positively associated with the frequency of religious practice.

## 9. A Comparison of Results between the Midlife and Older Age Surveys

There were a number of differences between the two survey populations of those in midlife (aged 40 to 64 years) and the older group (65 to 84 years). Two fundamental differences between the two cohorts were, firstly, that the midlifers were more likely to live in households with children, whereas

the older group was more likely to include women living alone because of the gender gap in life expectancy. Secondly, most midlifers were employed, or lived in houses where someone was employed, while the majority of the older group were no longer in the paid labour force.

Despite these differences, the two groups displayed many similarities, although the midlife group tended to have results that were more significant and more clearly congruent with the international literature. Health status, educational level, income, assets, housing tenure and safety all had stronger positive associations with wellbeing among the midlife group than among the older group.

Education, which was positively associated with overall wellbeing for the midlife population, was not significantly associated for the older population. This may be because education is more distant in time for the older group, but it is also likely to reflect the post war emphasis on the value of education and the greater need for qualifications in employment.

Although there were small variations, the patterns were much the same for both populations with regard to leisure and recreation; involvement in community organisations; the importance of faith; and the expectation of financial, health care, residential care and family support. The younger group had a higher level of leisure participation, but less satisfaction with it, perhaps reflecting the pressures of work and family life. The older group had higher expectations of rights and entitlements from the government than the younger group, and the religious affiliation of the older group was greater than for the younger group.

The midlife population showed more significant differences with regard to both the experiences and perceptions of safety than the older group. Both the experience and perception of safety were significantly less for midlife women than men.

Midlifers had fewer social contacts than the older age group, but a significant positive relationship was still found between the number of their social contacts and overall wellbeing. This was not the case for the 65 to 84 year-olds, where their level of overall wellbeing depended on their level of satisfaction with their social contacts, not the number of them.

The two age groups also differed with regard to their living arrangements. In the older group, men were more likely to be living with a partner, while women were much more likely to be living on their own. Many more midlifers lived in partnerships. This is clearly related to the increased proportion of widows in the older age group.

There were also differences with regard to employment and health. Nearly two thirds of the older population were fully retired, whereas most midlifers were involved in the labour market and only 6 percent were fully retired. The older group also showed lower levels of self rated health status, as would be expected.

Midlife Māori, despite substantial improvements in practically all social and economic indicators, still showed significantly lower levels of income, self-rated health status and education than non-Māori. By contrast, significant differences in income and education were not shown for the older Māori group.<sup>279</sup> The income result for older Māori probably reflects the levelling effects of the universal payment of New Zealand superannuation and the overall absence of other income for many older New Zealanders (non-Māori included). Older Māori attached more importance to faith than did their younger counterparts, a finding that is also true for non-Māori.

Finally, one of the most interesting differences between the two age cohorts was their level of overall wellbeing – 81.8 percent in the case of the 40-64 year-olds, and 87.8 percent with the 65-84 year-olds. With both cohorts, the level had declined since the 1998 World Values Survey, but there is a greater

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<sup>279</sup> Comparisons with regard to health status between older Māori and non-Māori were not carried out.

decline for the younger group, surveyed in 2008 (4.3 percent), than the older group, surveyed in 2007 (1.3 percent).

## **10. Areas of Particular Focus for Policy**

It is the intention of the research programme to identify the policy implications of the research findings for stakeholders, professionals working with midlife or older people, policy makers, and people in both age groups themselves. A few of these implications are discussed below.

**Age** – Fewer significant associations were found between age within the survey population and the domain indicators for the midlife population than for the older population. No significant relationship was found between age and overall wellbeing for the midlife group,, but significant relationships were found between age and education, income, asset wealth and the expectation of rights and entitlements to health care, residential care and government support.

Education results show improvements over time, in that the younger midlifers stayed at school longer and attained more qualifications, and asset wealth increased with age, probably as a result of freehold ownership of housing. Nevertheless, the low income and the high expectation of entitlements results demonstrate the economic vulnerability of people as they move closer to old age. As median income declines for most people during their mid fifties, a higher expectation of gaining access to health care, residential care and government support emerges. The importance of secure and predictable healthcare and adequate income as people move towards old age and beyond, is clear. The policy challenge is to address these fundamental needs as the current large number of baby boomers move into the age group of 65 years and over.

**Gender** – The results of the midlife survey demonstrated a number of gender differences, most of which led to better outcomes for men than for women. Men had substantially higher incomes, greater asset wealth, were more likely to live with a partner, to be in full time employment, and their experience and perceptions of safety were greater. These differences highlight gender inequalities that have been persistent challenges for policy makers. Some differences in labour market participation can be accounted for by childbirth and the nurturing of children, but the financial and asset outcomes are clearly inequitable. These results show that there is a continuing policy need to address the pay gap between women and men, find ways to reduce the asset gap, and to persist with employment equity initiatives in education and work place practice.

Although the results indicated that the overall objective experience of safety was high for both genders, there were statistically significant differences between them. Women felt considerably less safe than men in their neighbourhood at night and their personal safety had been threatened more frequently. This suggests that there is a continuing need to pursue policies that aim to eliminate violence and abuse in local communities so that women and men will not only be safe, but feel confident that they are safe.

**Marital Status/Living Arrangements** – Marital/partnership status was a significant indicator of overall wellbeing. The presence of a spouse or partner was significantly associated with higher personal and household incomes, greater asset wealth, home ownership, satisfaction with social contacts, and the expectation of rights and entitlements (including financial security, access to health care, residential care and family support). Such associations recognise the economic advantages of cost sharing and the social advantages of close intimate social contact, as long as there is a loving and respectful relationship. Given the associations found in this research between wellbeing and social connectedness, leisure and recreation, national and local policy makers should ensure that all people, and particularly non-partnered people, have affordable access to transport that will enable them to participate in social events, to be with friends and relatives and to meet others. Policies could also encourage the accommodation of different lifestyles, such as communal living within housing

developments and planned housing that encourages neighbourhood contact and greater community participation.

**Ageing-in-Place** – Policy makers could well take note of the responses to the question regarding ageing-in-place, where participants were asked to state what they considered were the most important things that would enable them to continue to live in their own home as they grew older.

The responses showed that only 6 percent did not intend to stay in their own home. The most important aspects to allow them to “age-in-place” included (in order of importance):

- their own or their spouse’s good health (80 percent)
- living in a desirable neighbourhood (63 percent)
- having family and friends close by (60 percent)
- reasonable rent or maintenance (60 percent)
- having easy access to transport (53 percent).

The responses are similar to those of the older group but the order differs slightly. These recommendations, in the form of “important aspects allowing them to age-in-place”, are pertinent to policy makers at the government and local body levels, especially as they come from the midlifers themselves.

**Education and Work** – The positive associations between both education and work and wellbeing demonstrate how important schooling, tertiary education and employment are for economic prosperity and social wellbeing. The results of this research show educational improvements in the younger cohorts should be continued and further developed. Furthermore, ongoing upskilling should be encouraged during midlife, ensuring continued employment, and allowing those with little “first-time” education to pursue more fulfilling career paths. Encouraging education through the midlife years will also allow for a higher level of wellbeing in older age.

**Economic Living Standard** – The results show that midlife New Zealanders have poverty levels ranging between 8.9 and 12.6 percent (depending on the poverty measure). This is concerning as this group is about to enter the 65 plus age group in larger numbers than has been known in New Zealand. It is therefore important that the combination of income, welfare and employment policies lift everyone above the income hardship threshold. The importance of this is seen in the relatively low level of asset wealth: 56 percent of the midlifers had less than \$100,000 in asset wealth (not including the family home), and around a third of the total sample possessed no substantial assets at all (excluding the family home).

This relatively low level of asset wealth is occurring with a cohort that has considerably lower home ownership rates than those currently 65 years or older (83 percent to 92 percent).<sup>280</sup> These lower rates of home ownership appear to be continuing to trend downwards. This may leave many more people in old age subject to high market rents, unless there is considerably more planning for increasing home ownership in New Zealand, or more social housing for older people, or both. This problem is further compounded by the minimal rent protection for low income households in New Zealand when compared with other countries’ policies.

**Leisure, Recreation, Social Contacts and Participation in Community Organisations** – A positive significant relationship was found between wellbeing and first, greater participation in leisure and recreational activities; second, satisfaction with contacts with family and others; and third, greater participation in community organisations. These represent key social capital indicators that enhance wellbeing and are important activities that, if carried through into older age, will continue to maintain wellbeing.

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<sup>280</sup> When family trusts, homes owned by other family members and retirement villages are included



The policy implications here relate more to facilitation. People need sufficient financial resources, adequate mobility and transportation to participate in these activities. While for most people this is manageable in midlife, there can be serious impediments for some, resulting from very low incomes, health problems or disability, for example. It is important that national and local policy makers encourage people to participate in their family and social networks, in community organisations and general leisure and recreational activities. Local authorities can also play a valuable role promoting these activities and providing venues.

**Safety** – The experience of not being safe at home was acknowledged by only a small number of midlife respondents (3 percent), but any experience that makes people unsafe should be unacceptable and, though the differences between men and women were small, they were significant. Experiences of being unsafe in the neighbourhood were considerably higher for women (11.6 percent) than men (8.4 percent), and statistically significant. The impact of this difference was much greater though, in that 30.7 percent of women and only 9.9 percent of men perceived themselves to be unsafe in their neighbourhood at night. The policy implications are fairly obvious, in that people should be able to walk freely at night, particularly in their neighbourhood. Programmes to ensure safety within families and communities need good resourcing, strategic planning and official support.

**Cultural Groups** – The results in this study on culture and ethnicity focused on comparisons between midlife Māori and non-Māori, because the numbers of Pacific and Asian in the midlife age group are small, and the recruited sample for this survey showed an even smaller proportion. Midlife Māori, despite substantial improvements in practically all social and economic indicators, still showed significantly lower levels of income, self-rated health status and education compared with non-Māori. This suggests the trajectory to achieve equitable cultural outcomes is likely to be of some considerable length, and will need continued policy developments to enhance Māori wellbeing and resilience. While it is difficult to pin down which policies most effectively achieve these goals, the combination of recent policies that have led to greater recognition of the Treaty of Waitangi, enhanced Māori decision-making power, increased self determination in the provision of services, improving social outcomes and a growing economic power base, appear to be improving wellbeing for Māori.

**Wellbeing** – Finally, while the level of wellbeing remains high among midlife New Zealanders, it has declined slightly since 1998. It is hoped that the decline will not continue into the older years of the current midlifers. This research and the policy implications arising from them provide a sound basis for enhancing the wellbeing of today's midlife New Zealanders, as well as ensuring their continuing wellbeing in their older years.

## 11. References

- King, P. & Waldegrave, C. (2009). Theoretical background. In P. Koopman-Boyden & C. Waldegrave (Eds), *Enhancing Wellbeing in an Ageing Society: 65 – 84 year old New Zealanders in 2007* (pp. 9-23). Population Studies Centre, University of Waikato, Hamilton, and the Family Centre Social Policy Research Centre, Lower Hutt, Wellington.
- Koopman-Boyden, P. & Waldegrave, C. (Eds) (2009). *Enhancing Wellbeing in an Ageing Society: 65 – 84 year old New Zealanders in 2007*. Population Studies Centre, University of Waikato, Hamilton, and the Family Centre Social Policy Research Centre, Lower Hutt, Wellington.
- Ministry of Social Development (2008). *The Social Report 2008*. Wellington: Ministry of Social Development.

## **Appendix One: Questionnaire Details**

The questionnaire described below was used for the 2008 survey of 1,958 New Zealanders aged 40-64 years. The full questionnaire contains 376 questions (not all were asked of every respondent), is 79 pages long, and can be made available separately. The questionnaire is similar to the questionnaire used in the 2007 survey of the 1,680 New Zealanders aged 65-84 years, but has additional, or more specific, questions relating to expectations of retirement, and help given to parents/grandparents.

This Appendix includes a brief listing of the general areas covered in the questionnaire in the order in which they were asked (Section 1). It will be noted that this format has been used for the organisation of the Monograph, i.e. according to the 'indicators of the specific domains of wellbeing'.

There is also a more detailed listing of the areas of questioning within these topics (Section 2).

### **1. Index of Questionnaire**

- A) Introduction/Screening questions
- B) Socio-demographic and life cycle questions
- C) Overall indicator of wellbeing – World Values Survey question
- D) Indicators of specific domains of wellbeing:
  - Health
  - Education
  - Paid work
  - Economic standard of living
  - Rights
  - Leisure and recreation
  - Physical environment
  - Safety
  - Social connectedness
  - Cultural identity.
- E) Endpiece – further question on overall wellbeing (World Health Organisation Quality of Life question), and questions in relation to specific domains.

### **2. More Specific Areas of Questioning**

- Screening questions to exclude those who: are not aged 40-64, and who are not independent or semi-independent, ie who are living in a rest home or other institution.
- Socio-demographic questions (age, gender, ethnicity).
- Language (languages spoken by respondent).
- Religion (religion of respondent, frequency of practice, importance of respondent's faith to them).
- Background and upbringing (country of birth, age of parents when born, area where respondent raised, years lived overseas, age when came to New Zealand, years lived in present dwelling, where living 5 years ago - rural/urban location, type of dwelling 5 years ago).
- Siblings (number born and gender, number still alive, number live in household, other place of residence).
- Living arrangements (type of residence, rural/urban location, number of co-residents, household type).
- Relationships (marital/partnership status, times been married/partnered, age of first marriage/partnership (of at least 3 months), age entered current marriage/partnership, age when last marriage/partnership ended).

- Current spouse/partner (age, location of residence).
- Other household members (relationship to each of the others in their household, age and gender of each of these other person/s).
- Children (number of children born or adopted, age of respondent when first and last child born/adopted, number of other child dependents cared for (e.g. stepchildren, grandchildren, foster children, nephews/nieces), number of all children listed who live in household, number and location of all children not living in household, number deceased children, age of respondent when last child left home, where these children now live).
- Wellbeing (general level of wellbeing (World Values Survey question, and World Health Organisation Quality of Life question), specific level of satisfaction with: health, education, work, economic standard of living, entitlements and rights, leisure and recreation activities, physical environment, personal safety, contact with family, contact with other people, cultural identity).
- Health (SF-12 questions).
- Education (respondent age when left school, highest qualification, age when completed highest qualification, access to email/internet).
- Work and retirement (first main job and type of job, age when started first main job, midlife job and type of job, age when started midlife job, current job and type, age when started current job, age when finished most recent job, times been outside the workforce (for over a year), reason why outside the workforce, age when expect to retire, looking forward to retiring, number of hours would like to work after retirement, age when retired, main work, voluntary work etc since retiring, reason for stopping work, age when respondent (or someone else), started saving for their retirement, the form of retirement savings).
- Income (sources of personal income, total amount of personal income, sources of household income, total amount of household income, adequacy of person/household total income for specific everyday needs).
- Housing (tenure, valuation of dwelling (and land), number of bedrooms, adequacy of dwelling size, number of people living in household, amount of specific outgoings for current dwelling, total housing costs).
- Other assets (ownership of other assets as a means of support in older years: property, reverse mortgages, shares, interest bearing funds, trust funds, business ownership, private superannuation, other assets; total value of these assets).
- Entitlements and rights (level of access or adequacy of the following rights: finance, health care, residential care, family support, government support).
- Leisure and recreation (participation in specific leisure and recreation activities in last month, leadership in community organisations in the last month).
- Physical environment (importance of factors allowing respondent to stay in own home: access to shops, reasonable rent or maintenance costs, desirability of neighbourhood, proximity of family and friends, level of health, access to transport, access to services, safety, availability of help).
- Safety (level of safety in own home, in their neighbourhood, in their neighbourhood at night, reason why not feel safe).
- Social contact (number of 'frequent and important' social contacts of respondents, for each contact: the relationship with respondent, age and gender of contact, frequency of contact, type of contact, importance of contact with respondent to that person; types of help given and received (in and around home) to or from parent/grandparent/other person regarded as parent/grandparent, level of loneliness – measured by the De Jong Gierveld Loneliness Scale).

## Appendix Two: Scales Used in the 40-64 Year-old Survey (2008)

### 1. The Health Scale: SF-12 Health Survey

After careful consideration of two other internationally reputable health indices (EuroQol, and HUI3), the SF-12 Health Survey was chosen on the following grounds.

#### 1.1 *International Usage*

The SF-12 began development at The Health Institute, USA, in 1994, when the SF-36 Health Survey (at the time the most widely-used health survey throughout the world) was found to be too long for some large-scale surveys. SF-12 (and the later version SF-12v2) as a shorter version of SF-36 but using the same health domains, has now overtaken the longer SF-36 in usage, and has been translated into over 30 languages, with detailed work showing that it is not strongly affected by cultural/ethnic differences. It has also been widely used in New Zealand by public agencies (see Ware et al., 2007:199-217)<sup>281</sup> for a listing of all publications relating to SF-12, especially those regarding validations studies and methodological issues.

#### 1.2 *Breadth of Questioning*

The SF-12 includes an overall question on the level of general health, followed by eleven questions on specific aspects of health relating to the level of general limitations/accomplishments on physical and mental health, and the time period of any limitations on physical and mental health. The twelve items in the scale specifically measure: physical functioning (PF), role physical (RP), bodily pain (BP), general health (GH), vitality (VT), social functioning (SF), role emotional (RE), and mental health (MH). It allows for the separation of physical and mental health, and provides a summary measure of each – the Physical Component Summary (PCS) and Mental Component Summary (MCS). The data on functioning also allows for extrapolation upwards to macro-level indices, such as health expectancy and other life-table measures, and in turn to inform the policy debate.

As with the SF-36 format, the SF-12 questions relate to a time period of 4 weeks, and require this recall on almost all the questions. Given the older age group of the study with a higher likelihood of poorer recall and health fluctuations, a shorter time period could have been considered more appropriate, but the survey was essentially interested in a more representative sample of general health, not unduly affected by daily or momentary fluctuations.

#### 1.3 *Brevity*

The SF-12 Health Survey is a multipurpose short-form with only 12 questions. It was therefore chosen (rather than the SF-36) in the interests of time efficiency in a large questionnaire and survey, especially where the respondents were older and likely to become confused regarding the detail of the questions. Other studies have shown that the SF-12 is a satisfactory alternative to the SF-36, especially where the sample is large and the objective is to monitor overall physical and mental health outcomes, rather than either of these in detail.

#### 1.4 *Suitability for a CATI Administered Survey*

While the SF-12 was developed mainly for administration in a written form, multi-country trials of over a decade have ensured that the wording is suitable for oral presentation to English speaking respondents in many countries (and in other languages). In the survey reported on here, there were no difficulties in adopting the precise wording of the questions in the SF-12.

Scoring of the SF-12 is set out in a series of manuals, with instructions as to how to score each of the SF-12 items, along with instructions as to how to undertake norm-based scoring of the overall SF-12 scale as well as the separate physical and mental summary measures.

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<sup>281</sup> Ware, J., Kosinski, M., Turner-Bowker, D., & Gandek, B. (2007). *User's Manual for the SF-12v2TM Health Survey*. Quality Metric Incorporated, Lincoln, United States.

The documentation on SF-12 can be seen on [www.sf-36.org/tools/sf12.shtml](http://www.sf-36.org/tools/sf12.shtml), or Ware, Kosinski, Turner-Bowker & Gandek (2007), and the questions included in the EWAS Questionnaire as Questions 66-77.

## **2. The De Jong Gierveld Loneliness Scale**

The 6-item De Jong Gierveld Loneliness Scale was chosen as a reliable and valid instrument for measuring overall, emotional, and social loneliness, suitable for a large survey (de Jong Gierveld & van Tilburg, 2006). This scale takes loneliness as one of the main indicators of social wellbeing, by reflecting an individual's subjective evaluation of their social participation or isolation. The scale thereby complemented the several objective indicators of the networks of personal relationships already included in the survey questionnaire.

The De Jong Gierveld Loneliness Scale draws on a cognitive approach to loneliness, where loneliness is seen as a subjective experience and is not directly related to situational factors. The scale thereby tied in with the theoretical position of the current research programme in aiming to use subjective as well as objective indicators. The importance of social perceptions and evaluations of one's personal relationships is emphasised. "Loneliness includes situations where the number of existing relationships is smaller than desirable or acceptable, as well as situations where the intimacy wished for has not been realised" (de Jong Gierveld, 1998, in de Jong Gierveld & van Tilburg, 2007:3).

The De Jong Gierveld Loneliness Scale specifically pertains to the feeling of missing an intimate relationship (emotional loneliness) or missing a wider social network (social loneliness), with the central question being "to what extent is an individual alone?" Thus the 6-item Scale has three items on emotional loneliness and three on social loneliness, these being two dimensions of the overarching loneliness concept, but with only a very small correlation between these two factors (de Jong Gierveld & van Tilburg, 2006:593).

The Loneliness Scale is currently being used in the Longitudinal Aging Study Amsterdam, and it is hoped that comparisons can be made with the New Zealand study.

It should also be noted that while the Loneliness Scale has attained a high level of internal and external validation with respect to the two dimensions of loneliness and with the determinants of partner status and health, the authors suggest that, having tested it on a mail questionnaire, the "use of the shortened version (i.e. 6-items) of the loneliness scale in telephone modes needs to be further explored" (de Jong Gierveld & van Tilburg, 2006:594). The current researchers were prepared to accept this challenge, and are in contact with the initiating research team.

Documentation and comment on the De Jong Gierveld Loneliness Scale can be seen on:

de Jong Gierveld, J. & van Tilburg, T. (2007). *Manual of the Loneliness Scale, 1999*, Vrije Universiteit, Amsterdam. Retrieved 16 April 2008, Web site:

[http://home.fsw.vu.nl/TG.van.Tilburg/manual\\_manual\\_loneliness\\_scale\\_1999.html](http://home.fsw.vu.nl/TG.van.Tilburg/manual_manual_loneliness_scale_1999.html)

de Jong Gierveld, J. & van Tilburg, T. (2006). A 6-Item scale for overall, emotional and social loneliness: Confirmatory tests on survey data. *Research on Aging*, 28 (5), 582-598.

de Jong Gierveld, J. (1989). A review of loneliness: Concept and definitions, determinants and consequences. *Reviews in Clinical Gerontology*, 8, 73-80.



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