AGEING IN THE 21ST CENTURY – ARE BABY BOOMERS PREPARED?

A study of preparation for later life
in a context of social change.

Jennifer Buckley
BA, Grad Dip Ed.,
Grad Dip Urban and Regional Planning

Discipline of Geographical & Environmental Studies
School of Social Sciences
The University of Adelaide

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ABSTRACT

Structural ageing and social change mean that the socio-economic and cultural context for ageing in the 21st century differs from that experienced by previous generations. Contemporary models of positive ageing have challenged constructions of ageing as decline and disengagement and resulted in higher expectations for retirement. However, these new notions of ageing may yet be eroded by the economic and social uncertainties associated with modern life; the reformation of the social contract; and dubious assumptions about the prevalence of healthy lifestyles. As population ageing gathers momentum, state supports are becoming more tightly targeted and risk is increasingly being devolved to the individual. This progressive contraction of the welfare state has occurred during a period in which employment has become more precarious, family structures more diverse and marriage less stable. These and other social transformations have significance for how both individuals and governments prepare for later life. Baby boomers, as the first generation to age in this fundamentally different environment, are likely to face challenges that were not present for previous generations and will present policy-makers with new dilemmas. Against this background, the thesis is a study of how the radical social changes of the last half century are likely to shape the way in which ageing is experienced by baby boomers and subsequent generations.

The thesis is underpinned by demographic (Riley et al 1999) and socio-cultural (Giddens 1990; 2002) theories of social change and is organised into two components. The first uses ABS Census data to explore differences between a pre-war cohort and a sub-cohort of baby boomers. The second component uses primary and secondary data from the North West Adelaide Health Cohort Study to analyse later life preparation in the baby boomer cohort. It uses a holistic conceptual framework that considers the interplay between: public protection, self-insurance, and self-protection.

From a theoretical and practical perspective the research identifies the need for policy-makers to be cognisant of how social change will impact on the resources baby boomers bring to old age and on how they negotiate the later life transition. It identifies variations in both the financial and non-financial resources available to different subgroups and in the factors that constrain their capacity to build and maintain the resources that will
support them in later life. Evidence from this study shows that low income earners, singles, and those with poor mental health are more likely to have fewer resources than the rest of the population and to be at greater risk of poor outcomes. This is also the case for females who are more likely to enter later life with multiple chronic conditions and fewer financial resources than men. There is, therefore, a need to develop appropriately targeted policies to ensure that the needs of the most vulnerable are adequately met.
DECLARATION

This thesis is my original work as a PhD scholar in the Department of Geographical & Environmental Studies at the University of Adelaide.

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

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Jennifer Buckley

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<table>
<thead>
<tr>
<th>Abbreviation</th>
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<tbody>
<tr>
<td>A&amp;S</td>
<td>Ageing and Society</td>
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<tr>
<td>ABC</td>
<td>Australian Broadcasting Commission</td>
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<td>ABS</td>
<td>Australian Bureau of Statistics</td>
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<td>ACER</td>
<td>Australian Council of Educational Reform</td>
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<td>ACOSS</td>
<td>Australian Council of Social Services</td>
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<td>ACSA</td>
<td>Aged and Community Services Australia</td>
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<td>AHURI</td>
<td>Australian Housing and Urban Research Institute</td>
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<td>AIHW</td>
<td>Australian Institute of Health and Welfare</td>
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<td>AIFS</td>
<td>Australian Institute of Family Studies</td>
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<tr>
<td>ARC</td>
<td>Australian Research Council</td>
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<td>ASRAM</td>
<td>Australian Survey of Retirement Attitudes and Motivations</td>
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<td>AWOTE</td>
<td>Average Weekly Ordinary Time Earnings</td>
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<td>CARES</td>
<td>Center for Aging Research and Educational Services</td>
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<tr>
<td>CATI</td>
<td>Computer Assisted Telephone Interview</td>
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<tr>
<td>COAG</td>
<td>Council of Australian Governments</td>
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<tr>
<td>COPD</td>
<td>Chronic Obstructive Pulmonary Disorder</td>
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<td>COTA</td>
<td>Council on the Ageing</td>
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<td>CPI</td>
<td>Consumer Price Index</td>
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<td>CRA</td>
<td>Commonwealth Rental Assistance</td>
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<tr>
<td>CSF</td>
<td>Census Sample File</td>
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<td>CSHA</td>
<td>Commonwealth State Housing Agreement</td>
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<td>DOHA</td>
<td>Department of Health and Ageing</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GFC</td>
<td>Global Financial Crisis</td>
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<td>HACC</td>
<td>Home and Community Care</td>
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<td>Housing Affordability Fund</td>
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<td>HSF</td>
<td>Household Sample File</td>
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<td>IGA</td>
<td>Inter-governmental Agreement</td>
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<td>ILU</td>
<td>Independent Living Unit</td>
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<td>MTAWE</td>
<td>Male Total Average Weekly Earnings</td>
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<td>NAHA</td>
<td>National Affordability Housing Agreement</td>
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<td>NATSEM</td>
<td>National Centre for Social and Economic Modelling</td>
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<td>NCLS</td>
<td>National Church Life Survey</td>
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<td>NEF</td>
<td>New Education Fellowship</td>
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<td>NHS</td>
<td>National Health Survey</td>
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<td>National Partnership Agreement</td>
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<td>NRAS</td>
<td>National Rental Affordability Scheme</td>
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<td>NSW</td>
<td>New South Wales</td>
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NWAHS  North West Adelaide Health Study
NZ    New Zealand
OECD  Organisation for Economic Cooperation and Development
PBLC  Pensioner and Beneficiary Living Cost Index
PBS   Pharmaceutical Benefits Scheme
PHI   Private Health Insurance
PRHP  Pensioner Rental Housing Programme
PROS  Population Research and Outcomes Study
RACHs Residential Aged Care Homes
RBL   Reasonable Benefit Limit
SAAP  Supported Assistance Accommodation Programme
SES   Socio-economic status
SG    Superannuation Guarantee
SPP   Special Purpose Payment
SPRC  Social Policy and Research Centre
SRH   Self-rated health
TFR   Total fertility rate
TFU   Telephone Follow Up
UK    United Kingdom
UN    United Nations
<table>
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<tr>
<td>US</td>
<td>United States</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
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<tr>
<td>YLD</td>
<td>Years lost due to disability</td>
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<tr>
<td>YLL</td>
<td>Years of life lost due to death</td>
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Chapter 1: Introduction

Because society changes, members of successive cohorts age in different ways; when many individuals in the same cohort are affected by social change in similar ways the change in their collective lives can produce changes in social structure, which in turn affect the aging process.

Riley, Foner et al. 1988:56

1.1 Introduction

Australia is at the end of a demographic transition which means that the structure of its population is shifting from one that is demographically young to one in which there is a higher percentage of older people. This situation is not unique to Australia as population ageing is a global phenomenon, albeit with significant variations across countries, with the most marked being between developed and less developed countries (Borowski and Hugo 1997). In addition, countries such as Australia, the United States (US), Canada and New Zealand (NZ) lag behind the older European nations largely due to the post-war baby boom which, while it initially deferred population ageing, will ultimately intensify its onset as large numbers of baby boomers reach older ages (Productivity Commission 2005).

Population ageing has broad structural implications, and in recent years much national and international policy and academic research has been directed at identifying the economic impacts consequent on the ageing of the population (Organisation for Economic Cooperation and Development 2003; Productivity Commission 2005; Kendig et al. 2007; Borowski and McDonald 2007; Treasury 2010a). The perception of structural ageing as a problem is influenced by the analysis of dependency ratios that “… measure the number of “dependants” per 100 “workers”” (Borowski and McDonald 2007:30). A crisis mentality is derived from a
focus on an increase in the age dependency ratios without taking into account a corresponding decrease in youth dependency ratios (Gee 2002; Borowski and McDonald 2007). A more balanced view of the effects of population ageing can be gained from examining projections of total dependency ratios that rise less steeply than age dependency ratios (Gee 2002). Nevertheless, public expenditure on older people has been shown to be around three times higher per head than expenditure on the young, hence there remains a need to develop policies to mitigate the effects of societal ageing (Hugo 2001).

Primary concerns about the economic impacts of population ageing relate to the substantial reductions in labour market participation and productivity that are likely to occur as the supply of young workers falls dramatically in coming decades. In 2001, Access Economics reported that the working age population grew by 170,000 per year but, based on current trends, predicted that during the entire decade of the 2020s there would be only 125,000 new entrants to the workforce (Access Economics, 2001:1). Falls in labour market participation and productivity have flow-on effects in relation to per capita GDP growth and fiscal capacity, with future projections by the Productivity Commission (2005) indicating that per capita GDP growth could fall to 1.25 per cent per year by the mid 2020s, half the rate of the year 2003-04. Hence, a key focus of government policy is to increase labour participation overall and to extend it over a longer period (Productivity Commission, 2005:xxvi). Both Treasury (2002) and the Productivity Commission (2005) predict that population ageing will produce increasing fiscal pressure, with the Productivity Commission projecting a fiscal gap of around 6.4 per cent. However, these projections do not go uncontested, with a number of factors being cited as having the potential to improve or alter outcomes (Borowski and Hugo 1997; Ranzijn, et al. 2002). In particular, Borowski and McDonald (2007:36) have drawn attention to the fact that government reports have not paid sufficient attention to ‘… the potential to change population futures in a way that reduces the speed and level of ageing’. They point out that if future economic times are good and living standards rise, as predicted by government economic reports, there is the potential to slightly raise fertility rates and to maintain these rates at higher levels. Equally, higher living standards will create a ‘… strong future demand for labour that will put upward pressure on migration levels’ (Borowski and Hugo 1997:35). Increased fertility and migration could significantly mute the extent of population ageing and result in a much smaller proportional increase in the 65+ years and over population than that
projected by the Productivity Commission for the year 2050 (Borowski and Hugo 1997:35). In addition, it has been asserted that the productivity of older people is frequently under-stated and hence their dependency over-emphasised (Gee 2002; Ranzijn et al. 2002; de Vaus et al. 2003).

Although there is debate about the extent and severity of the economic impact of population ageing, there is general consensus that appropriate policies, particularly in relation to health care, pensions, labour force participation and aged care services, need to be developed to manage the transition to an ageing society (Borowski and Hugo 1997; Ranzijn et al. 2002; Treasury 2002; Australian Government 2004; Productivity Commission 2005). In addition to its economic impact, structural ageing will affect family structures and patterns of support (Hugo 1983; Rowland 1991; Pillemer and Suitor 1998), intergenerational relations (Pillemer and Suitor, 1998), housing requirements (Kendig and Neutze 1999; Olsberg and Winters 2005), and the types of services needed (Rowland 1991). It will also influence how retirement and ageing are conceptualised (Cormann and Kingson 1998) and may give rise to ethical issues arising from advances in medical technology (Baltes 2003). Policies designed to ameliorate the effects of population ageing will need to be carefully balanced, as some policies, such as shifting responsibility for care onto family and the community, may conflict with others, such as those that aim to increase and prolong labour participation, particularly with respect to women (Ranzijn et al. 2002). In addition, policies designed to extend labour participation are based on assumptions that the health of mature age workers is better than that of previous generations despite the fact that there is little research to support this assumption.

In addition to the pressures of demographic ageing Australia will also need to manage the impact of its post-war baby boom cohort. This cohort is an example of disordered cohort flow, a concept used to describe particularly large and distinctive cohorts that tend to create wake effects or disturbances in other age groups (Rowland 1991). Such cohorts are more likely to experience a mismatch between the services required and those provided, hence it is important to anticipate the impact of the baby boomer cohort as it moves through the age structure (Riley et al. 1988; Rowland 1991). This brings an additional layer of complexity to the task of restructuring services and the economy to adapt to the ageing of the population. A third layer of complexity has its source in the profound social changes that have occurred in
the second half of the twentieth century and in what these changes mean for how the ‘new breed’ of older people, the baby boomers and their successors, will approach later life.

Against this background of population ageing and social change, this thesis is a study of how well baby boomers are likely to age and of the extent to which they are prepared for later life in both financial and non-financial domains. This thesis argues that for such an investigation to be of value, it is necessary to take into account both structural and agentic elements as structure influences individual action and individual actions in turn contribute to changes in structures (Riley et al. 1999). Hence this thesis investigates both the extent to which baby boomers strategically position themselves for later life, and the way in which this positioning is influenced by contemporary private and public institutions. Structural ageing and social change mean that ageing in the 21st century will occur in a context that is different from that experienced by previous generations (Riley et al. 1988; Kendig and Neutze 1999; Hugo 2003). Equally, as baby boomers enter later life they are likely to have different needs and expectations from their predecessors (Department of Health and Ageing 2001; Kendig and Duckett 2001; Fallon et al. 2004). Hence, if the challenges of structural ageing and social change are to be met, it is essential to first establish the extent to which this cohort has the resources to age well and independently, and second to identify the capacity of current policies and social structures to adequately supplement these resources where necessary.

Section two of this chapter outlines the aims and objectives of the thesis, while section three provides a summary of previous research into baby boomers and identifies the gaps that the thesis seeks to address. Section four defines key concepts central to the thesis, while the fifth section provides an overview of the thesis chapters.

1.2 Aims and Objectives

The main aim of this research is to achieve an understanding of how baby boomers will age and of the individual, social and institutional processes that contribute to, or detract from, their capacity to age well. There are three interconnected areas that are central to achieving this understanding. These include: social change and how it affects both the experience of, and the current context for, ageing; the concept of positive ageing with its related personal and
political imperatives; and the significance of preparation for later life within the current social context and in relation to positive ageing. In bringing these concepts together the thesis will compare the characteristics of baby boomers with their predecessors, explore ageing trajectories and preparation for later life in different subgroups of baby boomers, and contextualise the investigation as a whole in relation to the significant social and demographic changes that characterise reflexive modernity.

The specific objectives of the thesis include:

Objective 1: To establish how baby boomers differ from their predecessors and to identify changes to the social context in which they are ageing.

Objective 2: To describe the cohort in terms of their key socio-economic characteristics, retirement expectations/intentions and current health status.

Objective 3: To identify the type of planning different subgroups of baby boomers undertake, and the degree to which they reflexively plan for later life.

Objective 4: To explore how subgroups within the baby boomer cohort differ in terms of the financial and non-financial resources they will bring to later life.

Objective 5: To identify the factors that constrain the ability to build ‘self-protection’ resources for later life, and to determine how this varies for subgroups of baby boomers.

Objective 6: To assess the extent to which current policy frameworks related to ageing will adequately complement the resources baby boomers are likely to have.

Objective 7: To identify the implications of the findings for policy, future research and theory.
1.3 Previous Research

The last twenty years has seen the emergence of a strong research agenda focused on the unique economic and social needs arising from the ageing of the world’s population (United Nations 2001, 2002, 2003; Casey et al. 2003). In Australia, population ageing has attracted extensive research activity and policy development resulting in a range of projects, frameworks, centres and strategies. Key examples at the national level include the ‘Framework for an Australian Ageing Research Agenda’ (Australian Government 2003), the ‘National Strategy for an Ageing Australia’ (DOHA 2001), the Ageing Research Online initiative (Australian Government), and the ARC/NHMRC Research Network in Ageing Well (Australian Government). In South Australia, the increased focus on ageing is reflected in the formation of the Ministerial Advisory Committee on Ageing, the ‘Improving with Age: Our Ageing Plan for South Australia’ (Government of South Australia 2006), the ‘State of Ageing in South Australia’ report (Hugo, Luszcz et al. 2009), and in collaborative networks such as the Healthy Ageing Research Cluster (University of Adelaide, Flinders University and University of South Australia) and the Ageing Research Round Table (Office for the Ageing, University of Adelaide, Flinders University, University of South Australia, Council on the Ageing, Aged and Community Services Australia).

Research on baby boomers is generally situated within the broader agenda of structural ageing, with much of the research from countries affected by the post-war baby boom being focused on how the maturing of this large cohort will amplify the structural effects of population ageing, particularly in relation to health services and aged care (Rowland 1991; Borowski and Hugo 1997; Kendig and Duckett 2001; Reinhardt 2003; Fallon et al. 2004; Treasury 2002); labour supply and productivity; economic growth (Productivity Commission 2005; Harding 2006); financial provision for retirement (Kelly and Harding 2004; Kelly et al. 2002; Lusardi and Mitchell 2006, 2007a); and housing requirements (Olsberg and Winter 2005; Jones et al. 2007; Kendig and Bridge 2007). To date, much of this research has focused on the wave effects created by the large size of this cohort with comparatively less attention given to diversity within the cohort, or to how it differs from previous cohorts.
From a policy perspective, baby boomers are frequently regarded as a ‘problem’ group whose ageing needs to be managed through a variety of strategies related to the areas identified above (Phillipson et al. 2008). Socio-cultural perspectives tend to be more emotive, with the large size of this cohort and its strong association with the radical social and economic changes of the latter half of the 20th century causing it to have a strong socio-cultural presence that is not always positive in orientation. Negative views of baby boomers are likely to be exacerbated by the fact that baby boomers are transitioning into later life at a time when governments are highlighting the economic constraints arising from structural ageing. As a result, this cohort is frequently regarded as responsible for the perceived crises associated with the ageing of the population (Islam 2007). Intergenerational conflict is more likely to be engendered in the presence of stereotypes. Therefore, in the interests of intergenerational harmony there is justification for breaking down myths about the advantages experienced by this cohort and this can only be achieved through identifying disadvantage and risk within the cohort.

Media and cultural constructions of the baby boomer cohort tend to be polarised, with baby boomers being valorised as progressive innovators or demonised as the greedy and selfish ‘Me’ generation (Phillipson et al. 2008). They are portrayed as self-indulgent, as having an ‘elastic adolescence’, as poor savers (Mackay 1997) and as being fundamentally selfish and narcissistic (Moore 2005/06). However, some cultural constructions of baby boomers, notably those found in the tourism and marketing literature, make an effort to identify heterogeneity within this cohort by segmenting baby boomers according to values and lifestyle preferences. Cleaver and Muller, (2000:177-178) for instance, identify the majority of baby boomers as belonging to one of four key lifestyle groups: the ‘socially aware’ (18 per cent); the ‘visible achievers’ (26 per cent); the ‘something better’ (15 per cent); and the ‘conventional family life’ group (24 per cent).

Apocalyptic portrayals of the havoc this generation will cause as they transition into later life are largely fed by fears that structural ageing will result in health and welfare crises, with baby boomers being seen to intensify these crises through both their considerable numbers and their failure to adequately provide for themselves (Treasury 2002; Kelly and Harding 2004; Islam 2007). Baby boomers have been portrayed as enjoying a range of economic benefits, such as free higher education and generous welfare provisions, that are no longer available to...
succeeding generations who, instead, will be faced with higher tax burdens to support a ‘frivolous’ and ‘self-indulgent’ generation in old age (Moore 2005/06; Islam 2007). In Australia, resentment is also evident in relation to the perceived domination of baby boomers in the cultural domain, and their apparent refusal to step aside for frustrated members of Generations X and Y (Davis 1997; Heath 2006). On a more positive note baby boomers are regarded as healthier, better educated, wealthier and more technologically savvy than their predecessors, with these characteristics contributing to an optimistic outlook for their future ageing (DOHA 2001; Hardy 2006).

The reality underlying these perceptions is complex and relates to issues of both structure and agency. Stereotyped constructions of baby boomers tend to draw them as active agents who moulded society to suit themselves and fail to take into account that baby boomers’ choices, like those of any other generation, were also moulded by the historical and socio-cultural context in which they grew up (Ryder 1997). For instance, the apparent materialism of the baby boomers can be explained by the relative income theory of economic and demographic behaviour that suggests that material aspirations are formed through one’s economic socialisation experience in early life (Easterlin et al. 1990). While these aspirations may be modified by subsequent life experiences, changes in the desired standard of living are usually small (Easterlin et al., 1990). It is not surprising, therefore, that baby boomers, who grew up in a world characterised by economic optimism, readily available credit (Mackay 1997) and a growing individualism (Moore 2005/06; McDonald 1995), developed higher expectations than previous generations that they then endeavoured to meet. However, these expectations became progressively more difficult to realise as the ‘good times’ in which they grew up, gave way to economic recession and a labour market increasingly characterised by casual, contract and part-time work (Carson and Kerr 2003). Easterlin et al. (1990) suggest that baby boomers countered the impact of these adverse labour conditions by modifying their demographic behaviour. Hence, more baby boomers chose to remain single, to have smaller families, to take up moonlighting, and to adopt a two-income family model\(^1\). However, while such

\(^1\) Historical precedent for similarly motivated demographic behaviour can be found in the 1890s where adverse labour conditions, combined with the increasing costs associated with raising children, resulted in similar adjustments with respect to postponement of marriage and family size (Caldwell 1980).
adaptations may have enabled baby boomers to achieve living standards that were comparable to, or better than, those of their predecessors, these may well have been purchased at the cost of non-economic aspects of well-being such as ‘… family life, leisure, privacy, and independence’ (Easterlin et al. 1990:282). Indeed, MacKay (1997:65) noted that by boomers are the first generation to identify ‘… stress as a debilitating consequence of everyday life’. This is hardly surprising, as many baby boomers have had to manage the unforeseen consequences of a wide range of social and cultural changes that have affected relationships, workplaces and expectations, and which have effectively made long-term planning more contingent and problematic (Moen 1998). In midlife they have been faced with a social contract in which responsibility and risk are increasingly individualised and privatised (Kutza 1998; Carson 2003; Beck 1994), with this resulting in even greater uncertainty about how best to plan for later life. The Superannuation Guarantee (SG) was implemented too late for many baby boomers and means that in the absence of personal savings many will be forced to rely on the Age Pension (Kelly et al. 2002). However, to allocate blame to baby boomers as individuals is to ignore the very real structural constraints that many baby boomers face, whether these arise from the financial impact of divorce, the shift towards contract and casual labour, the instability of financial markets or the interrupted work careers common to women.

In later life, some baby boomers are likely to experience a large gap between expected and actual living standards (Kelly and Harding 2004) and this gives rise to questions as to how they will attempt to manage this gap. Existing research suggests that modifications to demographic behaviour may be one response, with early evidence suggesting that a substantial proportion of baby boomers are open to working longer (Jackson et al., 2006b) and may also be open to more diverse living arrangements, such as cohabitation, than previous generations of older people (Brown et al. 2006).

There are very real risks of an intergenerational blame game, with Hardy and Kruse (1998:2) noting that the rhetoric of crisis that characterised debates about U.S. Social Security in the 1980s ‘… linked the unsustainability of the current tax/benefit structure to the size of the baby boom cohort relative to the smaller size of subsequent cohorts’. Similar concerns have surfaced in Australia with the Intergenerational Report (Treasury 2002) noting the need to distribute public resources fairly between generations and to adjust current policies to ensure that the current generation of taxpayers do not impose an unacceptably high tax burden on the
next generation. The potential for intergenerational angst is likely to be fuelled by the fact that the share of wealth held by older generations is increasing, while that held by younger cohorts is falling (Kelly and Harding 2004:102), with the Governor of the Reserve Bank warning that:

If we are not careful, there is potential for conflict between the generations. The young may resent the tax burden imposed on them to pay for pension and health expenditure on the old. This will particularly be the case if they see the old owning most of the community’s assets.

Macfarlane, 2003:no pn.

Much of the disinformation that fuels negative constructions about baby boomers is based on a lack of knowledge about very real heterogeneity within this cohort. For instance, assertions about the wealth of this cohort, and their ability to pay for themselves as they age, are based on averages that mask a skewed distribution of wealth (Hardy 1998; Harding 2006). In Australia, most of this wealth (58 per cent) is held by the top quartile of the cohort while the lowest quartile holds only five per cent of the wealth (Harding 2006). However, as one US report notes, there is little to be gained from generating conflict about the respective rights of different generations, but much can be achieved from focusing on those in need within each generation (Center for Aging Research and Educational Services 1997).

Despite an acknowledged need to explore diversity within the baby boomer generation, and to contextualise their experience within a particular historical period (CARES 1997; Cornellan and Kingson 1998; Hardy 1998; Morgan 1998), there is little evidence of empirical research that achieves both of these objectives. Indeed, much of the literature continues to consist of scholarly reviews or informed opinion, much of which is sourced from the US with comparatively less being written in Australia. A selection of review-based literature is contained in Appendix 1.1. Appendix 1.2 shows that existing empirical studies tend to be of an exploratory nature (Slack-Smith and Lavery 2005); to compare differences between cohorts, but not within cohorts (Brown 2002-03; Mackay 1997; Vandrou and Falkingham 2000; Lehto et al. 2008); or to be concerned with a single issue such as retirement expectations and intentions (Hamilton and Hamilton 2006; Jackson et al. 2006b; Quine et al. 2006; Hunter et al. 2007; Warner-Smith et al. 2006; Jackson and Walter 2007a), retirement income (Simon-Rusinowitz Wilson et al. 1998; Kelly et al. 2002; Kelly and Harding 2004; Cobb-Clark and
Stillman 2006; Kelly and Harding 2007), attitudes to volunteering (Esmond, 2001; New South Wales Department of Ageing 2001), values (Riggs and Turner 2000), public libraries (Williamson et al. 2006), tourism (Muller and Cleaver 2000; Lehto et al. 2008; Ianello 2006), and health (Levelling et al. 2005; Chen et al. 2007; Lucke et al. 2007; Brown et al. 2008). Hence, much of the empirical research focuses primarily on the area in which the impact of social change is felt, with little attention given to detailed analyses of the composition and characteristics of the generation initiating the impact. Although some qualitative studies identify different subgroups within the cohort, their findings cannot be generalized to the wider baby boomer population (Quine et al. 2006). Many of the larger representative studies that identify subgroups are focused on retirement intentions and hence subgroups are usually defined with reference to factors affecting the age of retirement, whether retirement is seen as an abrupt or phased transition, or the extent to which different subgroups are financially prepared for retirement (Knox 2003; Jackson et al. 2006b).

There are few Australian studies that follow the baby boomer cohort through time, with Brown’s (2002-03) analysis of the 1940s, 1950s and 1960s cohorts being an exception. Brown’s study provides a sequential overview of the impact of period effects on different subcohorts of baby boomers over time, and identifies key trends that are likely to affect the way in which they experience later life. However, it does not include an analysis of health or social characteristics, nor does it identify different subgroups within the cohort. Although there is one study from the United Kingdom (UK) (Evandrou and Falkingham 2000) that examines differences between baby boomers and the pre-war generation in relation to living arrangements, health, dependency, and access to resources in later life, no equivalent Australian studies could be found. In addition, the intent of the UK study was to provide an initial overview with more detailed analyses to follow. More research is required in this area to ensure the development of age-related policies that are relevant to the needs of baby boomers and their successors, as these are likely to be different from those of previous generations.

With the exception of a number of studies on retirement and superannuation, and several US studies on health, very few of the empirical studies use a representative sample. Of those that do, many focus on only one segment of the cohort (Lucke et al. 2007), or include a sub-cohort
of baby boomers along with older cohorts (Alpass et al. 2007), or, in the case of Brown (2002-03), include a five year cohort either side of baby boomers born between 1946 and 1965. In some cases this is due to constraints in accessing appropriate data, but in others it is because the study sample has been chosen because participants are in midlife and their status as baby boomers is incidental. The majority of empirical studies focus on baby boomers’ retirement attitudes and expectations, but these are frequently viewed through an economic lens with very few examining non-financial preparations for later life.

1.4 Key Concepts

1.4.1 The Baby Boom in Australia

Demographically, the baby boom can be seen as an aberrant period as it interrupted a long-term trend of decreasing fertility that began around the 1870s and resumed after the baby boom (Caldwell 1980; Pool 2007). As Figure 1.1 shows, total fertility rates (TFRs) began to rise in the mid 1930s, reached 3.0 by 1946, peaked at 3.55 in 1961 and fell sharply to 2.88 in 1966. Rates stabilised in the late 1960s only to decline again in the 1970s, then falling to sub-replacement levels with a TFR of 2.08 in 1976 (Hugo and Wood 1983:5). Despite these increases in fertility a large part of the baby boom has been attributed to a change in marriage trends (Ruzicka and Caldwell 1977 cited in Hugo and Wood 1983:7), with marriage for women of childbearing age being near universal for women in this cohort and also occurring at earlier ages (McDonald 1984; Pool 2007). This was facilitated by an acceleration in net immigration gains with immigrants being mostly single European men with a tradition of early marriage (McDonald 1995). In addition, a number of individuals who had delayed marriage and childbirth during the 1930s Depression now sought to ‘catch up’, and hence further inflated marriage rates during the early stages of the boom (Hugo and Wood 1983; Pool 2007). Other factors included an increase in extramarital births and a reduction in involuntary childlessness due to advances in fertility treatments (Findings from the National Population Enquiry 1975 cited in Hugo and Wood 1983:6).
There are two key perspectives that inform how the baby boom is defined. The first is mainly concerned with measuring the extent and scope of the boom through examining factors such as total fertility rates, annual birth rates, the structural composition of the population and the force of early reproduction (Pool 2007), while the second focuses more on the cultural commonalities intrinsic to the baby boomers as a generation. The term baby boomers is commonly used to refer to the generation born roughly between 1946 and 1965, with cut off dates varying between 1961 and 1966 according to the criteria used and the datasets available to the researcher. However, the veracity of these dates has been challenged, with Pool (2007) suggesting that the usual cut-off points used to define the baby boom are primarily based on the sustained increase in TFRs and do not adequately take into account the fact that increases in cohort size were sustained for a longer period of time than high TFRs. As Pool (2007:146) notes, it would be reasonable to expect that a defining feature of a baby boom would be a large increase in the number of births compared to previous years and, given this, it would seem logical to take annual births into account as well as TFRs. If a baby boom is defined as a major upswing of fertility, with TFRs of 3.0 and above being sustained for a number of years (Pool 2007:145), then the baby boom in Australia could be defined as beginning in 1946 (TFR 3.0) (Pool 2007:144) and ending around 1965 (TFR 2.99), with fertility rates decreasing thereafter (Hugo and Wood 1983:9). However, total annual births actually peaked in 1971 at
276,000 compared to 240,000 in 1961, which was the peak year in terms of TFRs (Pool 2007:148). From this perspective, the cut-off point for the baby boom could be defined as 1971, with annual births decreasing from this point on. From the perspective of using such demographic analysis as a predictive tool it could be argued that using annual births as the deciding factor makes sense, particularly as cohort size, relative to preceding and succeeding cohorts, influences employment opportunities and determines the need for services such as schools, hospitals and aged care services (Rowland 1991; Pool 2007:258).

A second influence on how the boundaries of the baby boom are defined arises from a sociological perspective that is informed by the extent to which members of the cohort are seen to share similar experiences and expectations formed through their common location at a particular point in time (Riley et al. 1988; Ryder 1997). For instance, while cohort size might provide information about the extent of services required by a particular cohort, it does not provide information about the most appropriate form of service delivery, or about the types of services required, both of which may differ between cohorts due to the different context that prevailed during their maturation. In this respect, taking the peak year of total annual births as the cut-off may be problematic, as it is unlikely that those reaching their late teens around 1990 will have shared experiences similar to those who reached their late teens in the mid 1960s. Indeed, this is to some extent problematic even if conservative dates of 1946-1965 are adopted, with researchers frequently noting differences between ‘leading’ and ‘trailing’ edge baby boomers, with those at the leading edge experiencing a better economic environment as they entered adulthood than those at the trailing edge (Brown 2002-03). Nevertheless, both groups have stronger commonalities with each other than they do with preceding generations.

As will be discussed in Chapters 2 and 4, the social changes that characterised the period commonly known as the baby boom mark those born during this period as a transitional generation. This, in turn, is what differentiates baby boomers from succeeding generations who entered a social world in which the foundations of a new order had already been established. Although the extent to which both leading and trailing edge boomers shared equally in the experiences relating to the establishment of a new order may be debatable, this thesis treats both groups as belonging to the transitional generation commonly known as baby boomers. At the same time, it acknowledges that there are likely to be differences between these two groups, as well as within them, with the reasons for this being discussed in Section
While acknowledging the validity of using annual births to define the upper limit of the baby boom, this study uses the conventional dates of 1946 and 1965. These dates more accurately reflect the cultural aspect of the baby boom, its association with a period of radical social change and this cohort’s status as a transitional generation. In addition, use of these dates also facilitates data collection and makes it possible to compare findings with previous research that generally uses similar dates.

### 1.4.2 Cohort Flow, Social Change and Generational Units

The tendency to label individuals born within specific dates as a particular ‘generation’, and to treat them as a homogeneous group, is largely a marketing and media ploy and can lead to stereotyping and misinformation. However, a theoretical basis for perceiving generations in this way can be found in Mannheim’s (1997) definition of ‘generation’ and ‘generational units’ (Mannheim 1997). While Mannheim’s (1997) use of the term generation simply refers to people born in the same year, he used the term ‘generational units’ to refer to those who were not only born in the same year, but who also shared similar characteristics. Hardy and Waite (1997:4) note that Mannheim did not regard the development of a ‘shared consciousness’ within a generation to be guaranteed simply by their co-presence in space and time, but considered it to be dependent on the extent to which an additional bond was forged through the largely unconscious “… cultural orientations developed in early life” and the extent to which they had similar responses to the same historical influences. Mannheim’s (1997) model thus allowed for variations, as he considered that it was possible for a generation to produce one or more generational units, each of which could have quite different characteristics. Hence, his concept of generation is somewhat more complex than the simplified stereotypical model used in the contemporary media.

A more pragmatic model was developed some thirty years later by Ryder (1997) who, while he rejected the concept of a shared consciousness as being too nebulous, embraced and extended other aspects of Mannheim’s work. Ryder (1997) replaced the term ‘generation’ with ‘birth cohort’ and defined it as being those persons born in the same time interval and ageing together. In line with Mannheim, he believed that the sharing of a common historical location made the cohort a useful construct for the study of social change and considered each fresh cohort to act as “… a possible intermediary in the transformation process …’ (Ryder
While he did not consider demographic replacement or cohort flow to be the cause of social change, he did see it as permitting change, in contrast with more recent work by Riley et al. who see it as ‘... an independent source of social change ...’ (Riley et al. 1988:267) and van de Kaa (1997) whose views are discussed below. Both Mannheim (1997) and Ryder (1997) considered the cohort to be a useful unit of analysis because the specific temporal location of the cohort effectively creates a structural category similar to that of social class (Mannheim) or ethnic group (Ryder). In this sense it has explanatory power because it provides ‘... surrogate indices for the common experiences of many persons in each category’ (Ryder 1997:72). For instance, in terms of baby boomer behaviour, it can help to explain the particular opportunities or constraints that they face as they proceed through the life course and make the transition to later life. More recently, Ryder’s (1997) assertion that cohorts only permit change, has been challenged by van de Kaa (1997:3) who sees cohorts as not only permitting change, but actively creating ‘... the options succeeding cohorts have to choose from’.

Van de Kaa (1997:4) puts forward the concept of ‘mental cohorts’, the key characteristic of which is that individuals within these cohorts have ‘... acquired a similar approach to life ... share a common outlook and tend to make choices (stereotypical) for that mental cohort’. This concept has some similarities with Mannheim’s generational units, both in terms of shared characteristics, and in that birth cohorts ‘... are likely to comprise varying proportions of members of a given mental cohort’, but it also goes beyond Mannheim’s concept in that mental cohorts can also ‘... straddle a series of birth cohorts’ (van de Kaa 1997:3). Used in this way the concept of a mental cohort appears to assume an ideational rather than a demographic basis, although van de Kaa’s (1997) research suggests that it has demographic consequences through its effect on the choices available to future cohorts. It is a concept that fits in with notions of modernity as increased individualisation, and which supports the idea that exposure to, and take up of, modernising processes is not even (Giddens 1990). One explanation for this unevenness could lie in the interaction between ideational processes and particular socio-economic conditions. This would explain both the formation of different mental cohorts within one birth cohort and the different rates of uptake and expression of modernising processes that occurs between countries. Different subgroups within the cohort are exposed to different socio-economic and cultural influences, and hence respond to...
modernising forces differently. Similarly, differences in the way countries respond to modernising processes can be explained in relation to institutional frameworks, historical and social heritage and socio-economic contexts (van de Kaa, 1997).

This thesis adopts Ryder’s concept of the birth cohort as the unit of analysis. In doing this it also takes note of more recent work that highlights the importance of going beyond cohort averages and identifying variations within the cohort that arise from processes of social interaction and the allocational dynamics of social structure (Dannefer and Uhlenberg 1999). Hence, within the cohort it plans to identify key subgroups at risk. Unfortunately, constraints on data collection mean that it has not been possible to also identify the presence of different mental cohorts, as highlighted by van de Kaa, although it is important to keep this concept in mind, given that not all baby boomers are equally affected by the processes of social change and reflexive modernity. Although the priority in this study is to identify key subgroups at risk for negative ageing outcomes, further research that identified mental cohorts and examined the extent to which being in a particular mental cohort influenced health, education, work and social outcomes would be worth pursuing.

1.4.3 Preparation for Later Life

The literature on baby boomers and retirement reflects an underlying tension based on equity and economics and the respective responsibilities of governments and individuals. A key theme emerging from the literature is the dissolution of certainty and the sense of anxiety that this elicits amongst researchers, government policy makers and individuals. Permeating these issues is an awareness of the general disarray of traditional life course patterns and the dilemma of how to construct ‘old age’ and retirement amidst these changes (Moen 1998; Phillipson 1998; Gilleard and Higgs 2005). These concerns are intensified by the spectre of a diminishing tax base from which to provide financial support to large numbers of ageing baby boomers (Treasury 2002). As a result, planning for later life is becoming an issue of some significance at both the macro and micro levels (Cornman and Kingson 1998; Pillemer and Suitor 1998). Much of the research on the extent to which baby boomers are prepared for later life is driven by concerns about the adequacy of their financial resources. In addition, while there is a considerable literature on retirement planning, there is little that looks specifically at baby boomers, or which takes into account how social change may have
influenced attitudes to later life and the types of preparations baby boomers make. Even in relation to financial preparedness the focus is on the extent to which this cohort is prepared, rather than on the factors that facilitate or constrain the capacity of various subgroups of baby boomers to prepare. In summary, there is little research on preparation for later life that (a) examines both financial and non-financial aspects of preparation at both the individual and state level, and (b) uses both macro and individual level data to examine the factors influencing whether or not baby boomers prepare, how they prepare, what the obstacles are and how these might be ameliorated. This is a significant gap in the literature, particularly given the increasing emphasis on individual responsibility that accompanies the contemporary contraction of the welfare state.

Over the last few decades, Australian notions of retirement and later life have become more fluid and, for many, retirement has ceased to be a discrete event for which individuals can make firm plans (Cornman and Kingson 1998; de Vaus and Wells 2004; Cobb-Clark and Stillman 2006; Hamilton and Hamilton 2006; Onyx and Baker 2006; Everingham et al. 2007; Jackson and Walter 2007a). Rather, it has become a diverse process contingent on a range of factors that may or may not be under the individual’s control (Moen, 1998). It is now less likely to function as a signifier for the end of working life and the beginning of old age, because more individuals find themselves leaving and re-entering the workforce on a part-time, casual or contractual basis before the final exit. For women, retirement has always been a less defined transition because their work careers are frequently moulded and interrupted through caring responsibilities (Jefferson and Preston 2005; Olsberg 2005; Everingham et al. 2007). Changes to the way in which retirement and later life are conceptualised mean that planning for retirement has become more complex, at both the individual and the state level, while changing social conditions and individualisation mean that institutional arrangements governing the retirement process and supporting those in later life need to be flexible and responsive to diverse needs (Cornman and Kingson 1998; Everingham et al. 2007). Factors that influence preparation for later life under conditions of reflexive modernity include constructions of old age; the emergence of new risks associated with later life; and the impact of social change on resource availability and on how the individual is constituted in society.
The concept of retirement came into being when the first old age insurance programme was implemented in Germany in 1889 (Dychtwald 1999), while in Australia the age pension was first introduced in 1909 (Knox 2007). Originally, the key purpose of such programmes was to guard against income loss in the few years remaining to individuals who were no longer able to work due to a ge-related disability (Dychtwald 1999); it also effectively created a chronological marker for an official age at which an individual was classed as ‘old’. Hence both retirement and the later life that it signified, were associated with dependency, lack of productivity and general social disengagement (Phillipson 1998). Pension outlays were expected to be minimal because individuals generally only lived for a few years after retirement.

Over the course of the 20th century increased affluence and longer life expectancies contributed to subtle changes in the meaning of retirement. Although the official age for pension eligibility remained unchanged, life expectancies increased and the age at which disability occurred receded (Knox 2007). This, together with the Pension being tied to age rather than to disability, contributed to a conceptualisation of retirement as a period of socially sanctioned leisure in which all people of a certain age had the right to cease employment. In addition, the concept of retirement also provided policy makers with a useful mechanism for facilitating the transfer of jobs across generations and could thus alleviate pressure on the labour market (Cornman and Kingson 1998). Although longer life expectancies, greater affluence and better health made retirement a period to look forward to, the association with old age was retained and retirement continued to be socially constructed as a period of decline and disengagement (Phillipson 2005). However, in the last decades of the 20th century the traditional meanings of old age have been increasingly contested by individuals, researchers and policy makers (Rowe and Kahn 1997; Gilleard and Higgs 2002; Kendig 2004; Biggs et al. 2006; Matthews et al. 2007). There are several reasons for this. First, the socio-economic and cultural shifts that occurred in the 1960s resulted in increased affluence, education, individualism and an emphasis on personal growth and fulfilment (Gilleard and Higgs 2005; Biggs et al. 2006). Baby boomers had broader vistas, greater opportunities and less social constraints on their behaviour than previous generations (McDonald 1995; Mackay 1997). In addition, they developed a strong youth culture, which, some commentators suggest, they are reluctant to relinquish despite their ageing bodies (Mackay 1997). Conceptions of later life as
characterised by decline and disengagement have also been countered by social philosophers, such as Peter Laslett, through his concept of the ‘third age’ as a period of agency and personal fulfilment (Gilleard and Higgs 2002), and by the emergence of medical and psychological models of successful ageing in which much of the decline previously associated with age is now seen as preventable through the adoption of healthy lifestyles (Rowe and Kahn 1987; Baltes and Baltes 1990; Vaillant 2003).

The second impetus for contesting traditional concepts of later life and old age comes from the anticipated social and economic effects of structural ageing. The effect of maintaining a traditional retirement age in a context where life expectancies are longer is to reduce the proportion of the life cycle spent in the workforce. Although this may be a personally desirable outcome there are doubts about both the economic sustainability and ethical fairness of continuing to sanction a period of extended leisure, particularly where it is publicly funded (Kelly and Harding, 2004; Knox 2007). For a society that has such expectations of later life, the spectre of returning to the days where there is no choice but to work until the last couple of years of life, is a grim one. Although the intention of compulsory superannuation is to avoid such a scenario, it has been introduced too late for baby boomers, many of whom will continue to rely on the Age Pension (Kelly and Harding 2004). In addition, the ability of superannuation to ensure a retirement income for future generations is contested due to a variety of constraints that may affect the consistency with which some groups are able to make contributions (Quine and Carter 2006). These include a labour market characterised by part-time, casual and contract work, and work careers that are interrupted due to periods of unemployment, caring responsibilities or ill health (Carson and Kerr 2003). Hence, baby boomers are transitioning into later life at a time when the social contract governing the conditions of retirement is in a state of reformation. It is not surprising, therefore, that governments seek to change norms around this transition by promoting later life as a time of health and continued productivity rather than one of dependency and disengagement (DOHA, 2001; Government of South Australia, 2006). Such an image of later life provides a useful frame from which to introduce policy initiatives designed to raise and extend the labour participation rates of older workers, with research suggesting that this will have significant fiscal benefits in relation to government expenditure on age related pensions and in relation to private retirement incomes (Treasury 2002; Productivity Commission 2005).
A key element in new conceptions of later life and retirement is the emphasis on personal responsibility (Kemp and Denton 2003). This is not only evident in policy initiatives designed to encourage private financial provision for retirement, but also in discourses around successful and positive ageing, which will be further discussed in Chapter 3. There is, therefore, a risk that those who fail to remain active, engaged, healthy and productive will be morally marginalised. This is a very different paradigm to that faced by previous generations when to become frail, disabled and unproductive was considered a normal part of ageing (Rowe and Kahn 1987). The adoption of this new paradigm, in which individuals are not only supposed to ‘age better’ but are also considered to be responsible for their ageing, is occurring at a time when social conditions are more diverse, individualised and less routine, requiring individuals to constantly adapt to multiple roles, fragmented employment, less stable relationships and family structures, and increased financial risk (Moen 1998; Weston 2008). For some, these social conditions pose considerable constraints to achieving the ideals inherent in the concept of the third age and in models of successful ageing. The old paradigm of retirement planning conceives of retirement as a fixed event and focuses primarily on financial preparation. It does not take into account the new expectations being generated by contemporary and evolving concepts of later life. For this reason, the thesis adopts an expanded concept of retirement planning to encompass later life more generally and uses the term ‘preparation for later life’ in preference to that of retirement planning. Preparation for later life is a holistic concept and draws on a conceptual framework in which later life preparation is conceptualised as a responsibility that should be jointly shared by society and individuals (Denton et al. 1998). As Denton et al. (1998:2) note, many people find it difficult to plan for the future because it is unpredictable. Health, financial markets, family relationships and social security arrangements are subject to change and, while individuals may make careful plans, there is always the risk that these plans may fail. Hence, in assessing the extent to which baby boomers are prepared for later life, it is also important to take into account the degree to which public protection programmes have the capacity to provide adequate complementary support. The key elements of this framework, which will be discussed in more detail in Chapter 3, are public protection, self-insurance and self-protection (Denton et al. 1998).
1.5 Overview of the Thesis

This thesis is organised into two components. The first focuses on social change and how this has affected the context in which baby boomers will age, while the second focuses on the extent to which baby boomers are prepared for later life and the degree to which support provided by government is likely to be adequate. Both of these components are underpinned by a common theoretical framework which is informed by theories of social change (Giddens 1990, 2002; Beck 1994; Beck and Beck-Gernsheim 2002) and by the principles of the Ageing and Society Paradigm (Riley et al. 1999). However, within this overarching framework, the second component of the study uses the conceptual framework developed by Denton et al. (1998) and theories of positive ageing (Baltes and Baltes 1990; Rowe and Kahn 1997; Vaillant 2003), to examine preparation for later life in the baby boomer cohort.

Subsequent to this Introduction, Chapter 2 draws on demographic and socio-cultural theories of social change to develop a framework from which to examine the impact of social change on how baby boomers are likely to experience later life. It explores the interplay between individual lives and social structures and explains how change is integrated through the mechanism of cohort flow. It draws on theories of reflexive modernity and individualisation to provide a historical and theoretical perspective on the origins of the social changes experienced in the last half-century, and to draw attention to fundamental alterations in the way in which contemporary individuals are constituted within society. Chapter 3 describes the research methodology. Based on the theories discussed in Chapter 2, it first explains the methods used to assess the impact of social change and to compare baby boomers with their predecessors. It then explains the conceptual framework used to examine how subgroups of baby boomers prepare for later life. This is followed by a review of the North West Adelaide Health Study (NWAHS) from which the study sample was drawn; the research design used in the analyses; a description of statistical methods; and the development and administration of the survey. Chapter 4 examines the extent to which theories of reflexive modernity and individualisation are supported empirically by examining how the social context has changed over the 20th century, and by comparing the characteristics of a pre-war cohort born 1927-1936, with those of a sub-cohort of baby boomers born 1952-1961. In doing this it focuses on changes to everyday institutions such as education, religious affiliation,
marital status, and family structure, and discusses the potential impact of these changes on how baby boomers will experience later life.

Chapter 5 contextualises the second component of the thesis by describing the key demographic characteristics of the study sample and trends in relation to retirement intentions and expectations. It then explores how different subgroups of baby boomers think about and approach later life, and assesses the extent to which they reflectively plan by making lifestyle adjustments to improve or maintain wellbeing as they age. Chapters 6 through to 9 examine later life preparation with reference to public protection frameworks, and the extent to which baby boomers self-protect and self-insure in relation to health, active engagement, housing and retirement income. Chapter 6 considers both the public and private health resources available to baby boomers as they age. It begins by discussing the health system and the influence of social context on health and then describes current health status by gender and by earlier (1946-1955) and later (1956-1965) born cohorts. This is followed by a more fine-grained analysis of different subgroups with reference to health status, perceived constraints to adopting healthy lifestyles and private health insurance. Chapter 7 considers the potential for future engagement by examining current resources and activity patterns in relation to work, volunteering, social support, social interaction and the pursuit of personal interests. Chapter 8 examines housing tenure and the expectations baby boomers have of housing in later life and considers the capacity of the current policy framework to meet their future needs and expectations. Chapter 9 describes Australia’s retirement income framework and considers its adequacy given baby boomers’ current level of financial preparedness as identified through the literature and an examination of income expectations and savings patterns. Chapter 10 concludes the thesis by summarising the key findings of the research and examining their implications for policy, theory and future research.

1.6 Conclusion

This chapter has explained that social change and structural ageing lend urgency to the need to discover the extent to which baby boomers are prepared for later life. Based on a review of
previous research it has shown that there is a need to provide a comprehensive analysis of the baby boomer cohort; to identify heterogeneity within the cohort; and to show how it differs from previous cohorts. It has argued that baby boomers will enter later life at a time when traditional concepts of retirement, later life, and the social contract are being contested, with these posing unique challenges to both individuals and governments as they seek to manage the transitional process. Succeeding chapters describe the source and nature of these challenges and identify the extent to which both individuals and governments are prepared to meet them.
Chapter 2: Theories of Social Change

... against the backdrop of history, changes in people’s lives influence and are influenced by changes in social structures and institutions.

Riley, Foner et al. 1999:327

2.1 Introduction

The social changes of the last half century have had a profound impact on the patterns of everyday life and on the social context in which people live. Some measure of the importance attributed to these changes can be garnered from the significant body of theory that has been developed to explain them, including post-modernity (Lyotard 1984), post-industrial society (Bell 1974), post-materialism (Inglehart 1990), individualisation (Beck 2002), and reflexive, high or late modernity (Giddens 1990, 1991; Beck 1994; Lash 1994). The way in which different generations manage life course transitions is coloured by the socio-cultural context that prevails both at the time of their birth and as they progress through the life course (Riley et al. 1988). Each generation experiences social change but the extent and nature of this change varies between cohorts. Understanding the impact of social change on how a cohort progresses through the life course is an essential first step in anticipating the factors that will constrain or facilitate their ability to age well and to be prepared for later life. This chapter draws on demographic and socio-cultural theories of social change to provide a theoretical perspective on some of the key changes to social structures that have occurred over the last fifty years. In doing this it provides a framework from which to examine how the radical transformations of the last fifty years have affected the social context in which baby boomers matured and how they have contributed to the ‘... unique configuration of predispositions to thought and action’ (Riley et al. 1988:256) that baby boomers hold in common, and which set them apart from preceding cohorts. Section 2.1 provides a brief background to the study of

2 For simplicity’s sake the remainder of this chapter will use the term ‘reflexive modernity’, rather than late or high modernity.
social change while Section 2.2 examines demographic theories related to the linkages between cohort flows, ageing, and social change. Section 3 explores the socio-cultural dimension of change through examining theories of reflexive modernity as presented by Beck (1994) and Giddens (1990, 1991, 2002).

### 2.2 Social Change – A Brief Overview

Sociological studies of social change were triggered by the dual impact of the French and Industrial Revolutions and have tended to follow either an evolutionary or a revolutionary model of change (Giddens 1982). Evolutionary models are associated with the works of Comte, Spencer and Durkheim and see change ‘… as the adaptation of a social system to its environment by the process of mental differentiation and increasing structural complexity’, while revolutionary theories, such as that developed by Marx, see social change as arising from ‘… class conflict, political struggle and imperialism …’ (Abercrombie et al. 2006:352).

These theories focused on structural causes of social change at the macro level and gave little attention to the role of individual lives in causing change. However, over the last several decades the debate about structure and agency has become less polarised with more theorists developing models in which elements play a role in constituting the social world. Reflecting this shift, theories about social change increasingly acknowledge the dual role of social structures and individual agents in producing the complex interactions that cause change (Giddens 1982; Riley et al. 1988; Riley et al. 1999). Social change can be considered from a number of perspectives, including the level of analysis; the source of change – internal or external to a society; the cause of change; the agents of change; and the nature of change – whether gradual or radical (Abercrombie et al. 2006).

### 2.3 Age, Ageing and Social Change

Growing older is not a discrete event, nor does it occur in a vacuum, rather it is an ongoing process of development and change that is influenced by both individual and structural factors.
This means that ageing is an individual process that is reflective of individual life histories and choices, but at the same time these life histories are influenced, to varying degrees, by a range of social structures and by the overall social context in which they take place (Hagestad and Dannefer 2001). Social context, used here to refer to public and private institutions, norms, and values, provides a common framework within which individuals act. The fact that individuals act differently and experience quite different outcomes reflects a range of factors, including the diversity of individual characteristics, the different resources to which individuals and groups have access, and a variety of social processes. To accomplish the central aim of this thesis, which is to achieve an understanding of how baby boomers will age, and of the individual and social processes that contribute to, or detract from, their capacity to age well, it is necessary to understand the changing social context in which they have matured and in which they will grow old. Social change, its impact on baby boomers and on the way its challenges have been negotiated, is a key underlying concept of this thesis. This is not only because the population under study is generally recognised as being at the forefront of the social changes of the latter half of the 20th century, but also because the concepts of ageing well and of an extended period of ‘later life’ are also the product of significant social change (Baltes and Baltes, 1990). Longer life spans (Booth and Tickle 2003; Jackson 2007) and the belief that we have some control over the extent to which morbidity is a feature of old age (Rowe and Kahn 1987; Fries 1990), are both relatively new social characteristics that have arisen out of the economic and social conditions of modern industrialised society. This section draws on demographic theories of social change by examining the cohort concept to explain how social change is constituted by the continuing interaction of individual level changes with changes in social structures. In doing this it reviews theories of ageing and social change related to cohort flow and age structure.

2.3.1 Cohort flow and social change

Social change results from a multitude of different causes, such as political struggles, technological innovation, new ideas, economic change and demographic change, and often arises from the interaction of many different causes at once (Abercrombie et al. 2006). Social change initiated by these forces impacts on the daily lives of individuals and exerts pressure for further changes in values, attitudes and social structures as individuals adapt to new circumstances.
conditions. Riley et al. (1999) call this the interplay between the two dynamisms of individual lives and social structures. The link between the two, the mechanism that makes the integration of change possible, is cohort flow. Cohort flow refers to Ryder’s (1997) concept of demographic metabolism in which former cohorts are continually replaced by new ones with the process of replacement initiating changes in social structures in order to accommodate the needs of new cohorts. Thus cohorts would be differentiated from preceding ones by a range of characteristics arising from the social context in which they matured, including things like the content of education curricula, wars, economic depression or booms, technological innovation, and so on (Ryder 1997). Ryder’s development of this concept resulted in inter-cohort comparison becoming a central analytical device in the study of ageing and social change (Riley et al. 1988).

The cohort concept, particularly the use of inter-cohort comparison, has been a popular analytical tool in the identification of differences in ageing patterns between cohorts, and has been extremely useful in highlighting the impact of social change on ageing (Ryder 1997; Riley et al. 1999; Hagestad and Dannefer 2001). However, in the last couple of decades there has been increasing recognition that inter-cohort comparison needs to be complemented with intra-cohort analysis, if it is to pick up variations within the cohort that result from processes of social interaction and the allocational dynamics of social structure (Dannefer and Uhlenberg 1999). For instance, social status, education, occupation, marital status and income all affect the type of choices available and the choices a person feels comfortable making, and hence affect the way a person ages (Ryder 1997; Dannefer and Uhlenberg 1999). Dannefer and Uhlenberg (1999:312) point out that while the inter-cohort approach was hailed as a means of combating the ‘…assumptions of a biologically determined trajectory of “natural human aging”’ it only does this within limited parameters. That is, although inter-cohort comparisons can highlight the impact of social change on the ageing process, the absence of equivalent analyses within cohorts means that many non-biological factors that affect the way people age are still not properly identified, and ageing continues to be construed as a biologically-driven natural process. For non-biological factors to be identified it is necessary to pay attention to the causes of variability within the cohort. This is particularly so with reference to the baby boomer cohort for which erroneous assumptions of homogeneity are frequently made, when in fact there is likely to be considerable diversity within this cohort along a range of socio-
demographic factors (Cornman and Kingson 1998; Morgan 1998). Thus, while inter-cohort comparison is a useful tool for looking at ageing and social change, its inability to identify the impact of other social processes limits its usefulness for understanding the process of ageing itself (Dannefer and Uhlenberg 1999).

The Ageing and Society (A&S) Paradigm (Riley et al. 1988; Riley et al. 1999), one of the key theoretical perspectives framing research on age, ageing and social change, resolves many of the concerns cited above. Although the intellectual roots of this perspective can be traced to structural functionalism, with links to the ideas of Sorokin, Mannheim and Parsons (Bengtson et al. 2005), its progressive development has resulted in a strong emphasis on the reciprocal relationship between structure and agency in contrast to a structural functionalist model that sees social structure alone as being the major determinant of human action. A central proposition of the paradigm, that ‘...changes in people’s lives influence and are influenced by changes in social structures and institutions’ (Riley et al. 1999:327) reflects the shift noted above, from a polarised view of structure and agency, to one in which they are interlinked, and in which they occupy a dual role in the construction of action and social change (Giddens 1982; Marshall 2000). The reciprocal changes in lives and structures ‘...are linked to the meanings of age, which vary over time’ (Riley et al. 1999:327), that is, social change, whether arising from structures or individual lives, affects how age is constructed; the nature of age-related role expectations; how age is used to organise the life course and so on. The social change that arises from the dynamic interplay occurring between changing lives and changing structures, initiates differences in the way individuals from different cohorts experience the ageing process, and results in a synchronies, that is, structural and individual ‘lags’, as structures fail to keep pace with individual change or individuals fail to keep up with changing structures. The presence of asynchronies then tends to produce inbuilt pressures for ‘...new changes that might improve the mesh between lives and structures’ (Riley et al., 1999:337).

The A&S paradigm goes beyond inter-cohort analysis by advocating a life course perspective, a multi-level approach and the exploration of subjective attitudes and feelings, as well as overt actions. It uses age stratification as the fundamental organising principle for individual and social life rather than class, gender or ethnicity, while also acknowledging that multiple intersections occur between each of these stratification systems (Riley et al. 1988).
cohort, its size, its characteristics, and the contexts with which it interacts as it flows through time, is a central analytical feature of the paradigm. Based on these concepts, the first component of the thesis compares baby boomers’ characteristics with those of their predecessors and takes into account the broad historical context that has framed the lives of each cohort. In this way, the research design developed for this study is informed by the principles identified in the A&S paradigm (Table 2.1) identified by Riley et al. (1988), as being related to social change.

Table 2.1: Ageing and Social Change Working Principles

| WP-11 | The ways people age are affected by the character of the cohort to which they belong and by those social, cultural, and environmental changes to which their cohort is exposed in moving through each of the successive age strata. Because society changes, members of successive cohorts age in different ways. |
| WP-12 | When many individuals in the same cohort are affected by social change in similar ways, the change in their collective lives can produce changes in social structure that in turn further influence the process of aging. That is, new patterns of aging are not only caused by social change; they also contribute to it. |
| WP-13 | Individual aging and social change involve separate dynamisms, and their intrinsic lack of synchronization with one another produces strains for both individuals and society. |

Source: (Riley, Foner et al. 1988:247)

These working principles provide the framework and rationale for the analysis of the two cohorts that will be presented in Chapter 4 and inform the choice of the conceptual framework (outlined in Chapter 3) that forms the basis for analysing the extent to which a representative sample of baby boomers is prepared for later life.

2.4 ‘The Times they are A’Changing’

This section draws on socio-cultural theories of social change related to concepts of pre-modernity, early modernity and reflexive modernity (Giddens 1990, 1991; Beck 1994) that encompass cultural, structural, economic, and political change. These theories seek to articulate and trace the trajectory of change initiated by the political, industrial and intellectual
revolutions of the 18th and 19th centuries and to understand how these social transformations are expressed in contemporary lives. The primary method used by such theories is critical and interpretive.

The profound social change to which members of the baby boom cohort have been exposed has caused significant disruption to life course patterns (Hugo 1983; McDonald 1995; Moen 1998; Lesthaeghe and Moors 2000), and has introduced new and different constraints and opportunities into their everyday lives. Hence, baby boomers are likely to enter later life with a quite different set of resources and experiences from that of previous generations (Pillemer and Suitor 1998). Indeed, part of the rationale for studying baby boomers stems from the recognition that changes to the external context for ageing have occurred in tandem with equally significant changes to the internal context that baby boomers carry with them (Riley et al. 1999). It is anticipated that both of these factors will influence their expectations of ageing, their needs as older people and the nature and extent of the preparations they make for later life (Cornman and Kingson 1998; Morgan 1998; Harding et al. 2002). A key concern of the thesis is the degree to which both individuals and social structures have kept pace with the changing world, and the extent to which the failure to keep pace, that is, the presence of either individual or structural lags, is an implicit barrier to ageing well.

The configuration of predispositions that characterise the baby boomers has its source in the rapid social changes that delineate their formative years, and which mark a distinct departure from many of the values and norms held by previous generations. In saying this it is important to acknowledge the dynamic nature of these conditions and that rapid contextual changes have been a continuing feature of baby boomers’ lives. In contrast with preceding cohorts, the context in which baby boomers grew up was marked by a significant increase in affluence, the emergence of a consumer-based culture, rapid technological innovation, the counter culture with its anti-establishment perspective, globalisation, and changes to gender roles (Hugo 1983; McDonald 1995; Marginson 1997; Mackay 1997; Giddens 2002; Gilleard and Higgs 2002).

Although this study primarily draws on theories of reflexive modernity and individualisation to explain the socio-cultural changes that influenced the baby boomer cohort, it is pertinent, at this point, also to identify how these theories fit with the concept of the Second
Demographic Transition. This concept was developed by van de Kaa and Lesthaege to “… describe the changes in family formation, union dissolution, and patterns of family reconstitution in Western nations since World War II” (Lesthaege 1998:5). Lesthaege and Surkyn (2004) note that the First Demographic Transition, which resulted in the lowering of both birth and death rates, was connected to the desire to achieve material security and was characterised by familistic values, improved health and living standards, social aspirations and the goal of social progress. By contrast, the Second Demographic Transition was connected to the fulfilment of the ‘higher order needs’ (Lesthaege and Surkyn 2004:6), defined by Maslow, and was characterised by secularism, the ‘… reduced legitimacy of normative regulation and authority …’ (Lesthaege and Moors 2000:122) and values of self actualisation and individual autonomy (Lesthaege and Surkyn 2004). Lesthaege and Surkyn (2004:6) assert that it is the emergence of these features across a broad spectrum of domains that makes it possible to link the Second Demographic Transition to ‘… such a wide variety of empirical indicators of ideational change’. In fact, the literature on changes associated with the Second Demographic Transition frequently draws on cultural and ideational theories such as post-modernity (Lesthaege 1977), post-materialism (McDonald 2000; Lesthaege and Surkyn 2004), and reflexive modernity and individualisation (Carmichael and Whittaker, 2007) to explain these changes.

In line with this practice, this section draws on theories of reflexive modernity (Beck 1994; Giddens 1990, 1994, 2002) and individualisation (Beck 1994; Beck and Beck-Gernsheim 2002) to provide an explanatory framework from which to explore the significant differences in social context, behaviour and values that exist between baby boomers and previous generations, and which will be discussed in relation to empirical indicators in Chapter 4. Theories of reflexive modernity trace how and why value systems and institutions have changed from those of pre-modernity to the present. In contrast to the theory of post-modernity, they posit a radicalisation of modernity rather than its demise (Beck 1994; Giddens 1990). This means that social transformations are not seen as a rejection of the Enlightenment values of rationality, progress, and the primacy of objective knowledge, but are regarded as an inevitable outcome of the reflexivity inherent in modernity itself (Giddens 1990). In reflexive modernity, knowledge is seen to be uncertain, but in contrast with post-modernity this does not preclude the possibility of gathering knowledge about human action or social
development, rather, it means that knowledge is constantly open to revision as new information comes to light (Giddens 1990:38). The following brief discussion aims to locate contemporary society in relation to pre-modernity, early modernity and reflexive modernity in order to clearly identify key changes to social structures and the individual’s relationship to those structures. In this respect it links the First Demographic Transition with early modernity and the Second Demographic Transition with reflexive modernity.

2.4.1 Pre-modernity, Early modernity and Reflexive modernity

There is disagreement about the period of time covered by the term modernity and it is variously associated with the spread of capitalism in the 18th century, the religious changes of the 15th century, or the onset of industrialisation in the 18th and 19th centuries (Abercrombie et al. 2006). In this study it is defined as being associated with the onset of industrialisation during the 18th and 19th centuries. The term early modernity is used to refer to the period between the Industrial Revolution and the end of World War II and delineates a number of fundamental changes that occurred in the structure of society and the individual’s place in it. These structural changes were informed and paralleled by the values of individualism and secularisation that grew out of the Enlightenment with a key outcome of Enlightenment thinking being that ontological security ceased to be derived from the certainty embodied in the divine law and religion, and was increasingly sourced from a belief in the human capacity to deliver certainty through the laws of reason and science (Giddens 1990). The transformation from pre-modernity to early modernity was primarily located at the public institutional level (Giddens 2002) and is expressed in a shift from the communal structures of kinship networks, village communities and the church, which were personal and place-based, to collective structures such as government bureaucracies, the welfare state and trade unions, which were impersonal and abstract (Lash 1994). For instance, education became the province of the State rather than the responsibility of parents and the government set up institutions to care for the elderly, the destitute or the insane, where previously they were cared for by family groups or by the community (Magarey 1980). Communal structures were based on shared meanings, while collective structures were based on shared interests (Giddens 1990; Lash 1994). In contrast, changes at the private institutional level have happened much more slowly, with dramatic and widespread transformations of everyday institutions such as
the family, marriage, gender roles and relationships only occurring, in force, with the advent of reflexive modernity in the latter half of the 20th century (Giddens 2002).

The underlying source, or, perhaps, precondition for the transformation of everyday institutions, can be traced to the epistemological basis of modernity itself. An important part of the Enlightenment project was to free humanity from ignorance and superstition and to provide tools with which could develop a new control of the evolutionary framework (Giddens 1991). Knowledge, based on reason and the scientific method, became the new authority or criteria against which the value of human activity was judged (Giddens 1990, 1991). Religious belief and custom persisted, but increasingly became simply one among many other means for organising human activity; their centrality as an organising framework had been eroded. However, knowledge as the ultimate authority proved to be fundamentally flawed, as the very basis of the rational scientific method works to undermine any form of ultimate authority and hence also undermines ontological security, as it means that all is open to question, nothing is certain, and things can only be valid ‘in principle’ (Giddens 1990:48-49). Hence, human knowledge itself is inherently unstable and subject to change. A correlate of the instability of knowledge is that there is also no absolute authority by which social practices can be justified, because all practices become open to scrutiny as new knowledge or information comes to light (Giddens 1990). This practice of reflexivity, in which knowledge is used to revise and inform social practices, is a hallmark of reflexive modernity and has played a key part in activating the instability now inherent in everyday institutions (Giddens 1990).

At first glance, reflexive modernity, as defined by Giddens (1990, 1991, 1994) and Beck (1994), appears to delineate a new world of freedom in which individuals need not follow hide-bound traditions and can freely choose their own destiny. Although it is true that choice is less constrained by the prescriptive frameworks that previously moulded everyday institutions and actions, the weakening of the ontological basis that supported these frameworks has introduced a new complexity into everyday life and into the decisions individuals make about their lives (Beck 1994; Giddens 2002). A key aspect of this complexity is the change in the concept of personal responsibility, for under conditions of reflexive modernity each individual must grapple with personal responsibility for the choices
they make in a way that was previously unknown (Beck 1994, 2002), and they must do it without reference to a universally accepted ultimate authority (Giddens 2002).

In pre-modernity the limits of personal responsibility were defined with reference to the context of Divine Law and established customs; in early modernity the limits were defined with reference to human institutions, and were framed by ‘… the institutionalized individualism of property, contract, the bourgeois family and civil society ...’ (Lash in Beck and Beck-Gernsheim 2002:1). In reflexive modernity the limits of personal responsibility are increasingly referenced to the individual rather than to institutions or traditions (Beck 2002). Social mores and traditions that once provided a framework for decision-making have become more flexible, more diverse, more subject to change and it is the individual’s responsibility to develop their own guidance system by choosing from amongst the diversity of values and mores on offer. Although this constitutes a certain freedom, it is, as Lash (in Beck and Beck-Gernsheim 2002:2) suggests, a ‘precarious freedom’, precarious precisely because it opens up unchartered terrain and the consequences of actions cannot always be clearly determined. These shifts in the limits to personal responsibility reflect an ongoing process of individualisation that is fostered by institutional developments such as the growth of the welfare state in which ‘… the rights and entitlements to support from the welfare state are designed for individuals rather than for families’ (Beck 2002:3). Individualisation processes result in families containing dual or multiple biographies where previously they contained only one, that of the male breadwinner (Beck 1994). Personal responsibility and personal decisions no longer occur within a context where decisions are based on established values and customs, but now occur within a space where conflicting desires must be negotiated and where few models for such negotiation exist (Beck 1994).

2.4.2 Detraditionalisation and Individualisation

In pre-modernity, traditions and everyday institutions were based on their own internal claim to truth and were justified by reference to custom or religious belief. In reflexive modernity, this claim to authority is no longer accepted unless ‘… what “was done before” happens to coincide with what can be defended in a principled way in the light of incoming knowledge’ (Giddens 1990:38). This process of de-traditionalisation, in which the authoritative status of
Tradition is challenged by the reflexive application of knowledge, is a key characteristic of reflexive modernity. Traditions relate to communities (Giddens 2002) and include those ‘…elements of culture [that are] regarded as part of the common inheritance of a social group …’ (Abercrombie et al. 2006:399). They may include any ‘…human belief, practice, institution or artefact that is handed down from one generation to the next …’ (Abercrombie et al. 2006:399). Everyday institutions based on tradition include things like work practices, food consumption cultures, relationships, marriage, religion, education and gender roles. The questioning of tradition that is characteristic of reflexive modernity has played an important part in the transformation of everyday institutions such as marriage, religion and the nuclear family.

While the initial process of modernity freed public institutions from traditional forms it is only from the mid-twentieth century onwards that there has been large-scale questioning of the traditions relevant to everyday life (Giddens 2002). One possible reason for the delay in the transformation in everyday institutions comparative to public institutions is that for a long period of time they continued to function adequately within the new social framework. Another reason lies in the fact that the process of reflexivity applied to social practices is equally applicable to technological interventions. As modernity gained momentum, scientific and technical knowledge increased exponentially. The technological dynamism that results from the reflexive use of this knowledge, particularly when combined with the application of reflexivity to social practices, accelerates the rate and scope of change producing disjunctions in the interface between the public and private sphere or what Riley et al. (1999) might call structural and individual lag. The reflexive monitoring that occurs in response to such lags is, consciously or not, aimed at resolving asynchronies and leads to transformations in everyday institutions.

A classic example of the social dynamism that occurs when technology interfaces with social reflexivity is evident from an examination of the effects of the contraceptive pill on sexual practices and family formation. Part of the Pill’s impact lay in the fact that it fell on fertile ground (no pun intended). That is, post-World War II and prior to the Pill’s introduction, there was already a growing desire for personal autonomy coupled with increasing opportunities to fulfil this desire. Youth generally had more freedom during the war...
and women were permitted a status in the public sphere that had hitherto been largely reserved for men – they worked as tram conductors, taxi drivers and in munitions factories doing a ‘man’s’ job (Alexander and Torney-Parlicki 2001). Although their right to work in such occupations was to some extent rescinded in the immediate post-war years (McDonald 1995), the knowledge of their capacity to do so remained. In addition, the post-war economic boom created a climate in which there was more scope for socialising, leisure, and the pursuit of personal enjoyment, engendering a taste for autonomy that would not be easily relinquished, and which subtly diminished the power of custom and tradition to control individual behaviour (Carmichael 1998). Carmichael (1998:93) identifies the ‘… significant loss of parental influence over, and oversight of, courtship during the late 1940s and 1950s …’ as preceding the Pill in initiating Australia’s revision of Judeo-Christian morality, and links this loss of parental oversight, at least in part, to the much greater access young people had to motor vehicles that ‘… freed courtship from parental scrutiny as never before …’ (Carmichael 1998:94). Although this was a key factor in providing young people with greater personal freedom, it also ended the physical consequences with non-marital conceptions escalating at this time (Carmichael 1998). Evidence for a lag in the development of a comparable moral freedom is suggested by the fact that during this period about 70 per cent of non-marital conceptions for those aged 15-19 continued to be legitimated by marriage prior to confinement (Carmichael 1998). However, in the 1960s, legitimation of non-marital pregnancies for those aged 15-24 declined by about 10 per cent (Carmichael 1998) suggesting a loosening of the ties to Judeo-Christian values. In 1961 the Pill became available and the scene was set for a transformation of these values. The key impact of the Pill was to facilitate a future in which women had control over child-bearing with this having flow-on effects in relation to attitudes towards marriage, women’s roles, and the meaning of sexuality and relationships (van de Kaa 1997). However, as Carmichael (1998:96) points out, this was a gradual process with its initial effect being to encourage earlier marriages with some couples seeing contraception as a way to reconcile the ‘…conflicting moralities being championed by peers and parents by marrying young and then delaying parenthood within marriage’. In the long term, the confluence of the Pill and the feminist movement, with its emphasis on further education and opportunities for labour participation for women, set the stage for a transformation of gender roles that would make financial independence a reality for women
and rock the foundations of the family unit. Marriage, once a sacred institution, would become what Giddens (2002:18-19) refers to as a ‘shell institution’ to which traditional strictures no longer applied. The introduction of the Pill in a social climate characterised by challenges to traditional values and established authority (McDonald 1984; Carmichael 1998), as evidenced by the feminist movement, civil rights movement and peace activism (Marginson 1997), is a classic example of how technology interfaces with social reflexivity to produce transformative change.

Tradition, with its roots in a religious world view, has often been seen as a source of social stability and legitimacy (Abercrombie et al. 2006), of providing a ‘…framework for action that can go largely unquestioned’ and of giving individuals a sense of safety and security (Giddens 2002:41). The impact of de-traditionalisation has resulted in increasing individualisation, a concept that has been developed at length by Beck and Beck-Gernsheim (2002) and which is increasingly used in discussions of various aspects of contemporary social life (Brannen and Nilsen 2005; Abercrombie et al. 2006; Taylor-Gooby and Zinn 2006; Carmichael and Whittaker 2007; Powell et al. 2007; Binkley 2009). The term individualisation is sometimes used interchangeably with the Enlightenment concept of individualism, but the two are actually quite different. Where individualism focuses on the rights of the individual and their relationship with other entities such as the Church or the State, the concept of individualisation is more generally used to refer to contemporary social conditions in which the life choices and decisions of an individual are no longer embedded within the traditional frameworks of family, location, church and so on (Lash 1994; Abercrombie et al. 2006). This disembedding of the life course from its traditional anchors leads to the demise of a common sequential path characterised by clearly defined transition points at predictable stages in the life cycle (Carmichael 1998; Moen 1998). This poses particular challenges for policy makers as the categories traditionally used to structure service provision and distribution no longer meet the diverse needs of individuals. Individualisation equates to complexity in which the exception is in danger of becoming the rule.

Beck’s (2002:2) theory of individualisation has two meanings, the first of which refers to the disintegration of ‘…previously existing social forms – for example, the increasing fragility of such categories as class and social status, gender roles, family, neighbourhood etc.’ while the
second refers to a new set of ‘… demands, controls and constraints [that] are being imposed on individuals’. Hence Beck (1994:13) defines individualisation as ‘… first, the disembedding and, second, the re-embedding of industrial society ways of life by new ones, in which the individuals must produce, stage and cobble together their biographies themselves’. Beck (2002:2) refutes the idea that individualisation means ‘… an “unfettered logic of action, juggling in a virtually empty space” ’ and is keen to assert the institutional context in which individual choice occurs. Hence, Beck’s theory of individualisation does not, as some appear to imply (Brannen and Nilsen 2005; Powell, Zinn et al. 2007), assert the supremacy of agency over structure. In fact Beck (2002:3) does not appear to interpret the construction of individual biographies in positive terms, but construes them as the ‘tight-rope biography’, the ‘risk biography’ or the ‘break-down biography’. Rather, his point appears to be that both the institutional structure and the relationship of the individual with these structures have changed. Institutions and traditions, rather than providing a fixed and prescriptive framework, now tend to take the form of ‘… offers of services or incentives to action …’ (Beck 2002:3), and so, technically, whether or not you have a university education is now dependent on the choices you make rather than on an accident of birth or a particular social status. However, choice itself is contextualised within a net of complex social structures that act to influence the choices that individuals make (Beck 1994; Dannefer and Uhlenberg 1999). Hence, constraints on individual agency still exist, but they are different constraints and perhaps more covert. Indeed, unlimited choice can itself become a constraint on action because the sense of personal responsibility that choice engenders, with its insistence on making the right choice and therefore on fully understanding the factors that will affect the rightness or success of the choice, can, in its extreme form, lead to paralysis of the will or what Giddens (2002:47) calls ‘frozen autonomy’, a concept that refers to the downside of having an abundance of choice but no secure and authoritative reference framework to guide the choices that are made. Giddens (2002:47) equates frozen autonomy with addiction and suggests that it ‘… comes into play when choice, which should be driven by autonomy, is subverted by anxiety’, with the result being an increase in addictive behaviour. The constant repetition of an act, whether this be in relation to eating, alcohol consumption, smoking, or work, creates a sense of structure, predictability and safety and delays the need to make autonomous decisions, the results of which may be perceived as unpredictable and hence potentially hazardous. The paradigm of
personal responsibility and the individualisation of risk, which is increasingly being adopted by governments, in relation to areas such as health and retirement (Denton et al. 2004; Binkley 2009), is one in which the onus is increasingly on the individual to keep themselves informed so they can make appropriate choices, and rests on two key assumptions. The first being that the necessary knowledge and information are freely available, and the second, that all individuals have the skills and resources to use the available knowledge and information effectively (Beck 1994). Superficially, these assumptions seem reasonable as reflexive modernity is characterised by a democratisation of knowledge and information through increased access to formal education and the Internet. However, the flaw in this paradigm lies in the often contested and contradictory nature of the knowledge and information that provides the basis for decision-making, for some individuals, leads to a sense of disempowerment rather than autonomy (Beck 1994; Giddens 2002). In addition, the availability of both internal and external resources differs between individuals, and hence affects the choices that are made. These developments have both psychological and structural implications.

At the psychological level there is greater potential for more individual freedom and autonomy, but this comes at the expense of the ontological security provided by tradition, and can give rise to uncertainty and a free-floating anxiety. The implications of the shift from a religious to a rational scientific worldview are visible in the contemporary instability of traditional frameworks, which, in turn, affect the formation of identity. Identity, being no longer embedded in predictable and secure frameworks, must become more self-referential as, if it remains predicated on social positions and frameworks that are inherently changeable, it too, is likely to be prone to instability (Giddens 1994). For instance, the increased flexibility of gender roles concomitant with the de-centering of the male breadwinner role and the traditional nuclear family has meant that identity formation must increasingly be structured by the individual rather than by traditional institutions (Beck 2002; Giddens 2002). Even in early modernity, the possible options for an individual’s future were still largely constructed out of the traditions of a collective past, and a sense of ontological security was to some extent engendered by this repetition of past traditions (Giddens 2002). Justification for one’s actions could be based on an authority other than one’s own, whether this was referenced to tradition or to the authority of experts, religious tenets etc (Giddens 2002). The crucial point is that
individuals were not held to be ultimately responsible for the outcomes of their choices, provided they acted within these sanctioned frameworks. Certainly, if an individual broke with tradition, or chose to step outside of accepted religious rules or secular laws, then they were responsible for the consequences; however, the personal responsibility that went with freely chosen action was not thrust upon them, was not a part of everyday life and could be avoided by staying within the accepted frameworks (Lash 2002). Where the authority of these frameworks has been questioned or eroded, then individuals have no choice but to act on their own authority and to become responsible for their actions in a way that has not previously been the case. As Beck notes:

Opportunities, dangers, biographical uncertainties that were earlier predefined within the family association, the village community, or by recourse to the rules of social estates or classes, must now be perceived, interpreted, decided and processed by individuals themselves. The consequences – opportunities and burdens alike – are shifted onto individuals who … in face of the complexity of social interconnections are often unable to take the necessary decisions in a properly founded way, by considering interests, morality and consequences.

Beck 2002:4

Individuals must, in many ways, create their own frameworks of reference, or as Beck (1994) puts it, must construct their own biographies. This appears to be primarily a phenomenon of reflexive modernity as it is in this period that traditions relating to everyday life have been most contested (Giddens 2002). The pressure on individuals to make decisions autonomously, where previously decision-making was embedded in traditional frameworks, generates high levels of anxiety and uncertainty and, ‘… living and acting in uncertainty becomes a kind of basic experience’ (Beck 1994:12).

At the structural level, the increasing individualisation of society is reflected in the disruption of the traditional life course and the institutions and roles that support it. Beck (1994:14) asserts that ‘… industrial society categories of life situations and life conduct presume one another in a certain way’. For example, ‘Class presumes the nuclear family, which presumes sex roles, which presume the division of labour between men and women, which presumes marriage’ (Beck, 1994:13). Central to individualisation theory is the way in which these
categories are being de-embedded and re-embedded in reflexive modernity. In early modernity the traditional life course with its relatively standard sequence of education, work, marriage, childbearing, and retirement gave individuals a structured template with sequenced and predictable transitions. By contrast, the chronological sequencing of today’s life course has been significantly disrupted through changes to everyday institutions such as work, marriage, family, and education. Gender roles have become blurred and the division of labour between the sexes is poorly defined. The concept of family has been extended beyond the traditional nuclear family to include a range of family types (Hugo 1983; Wise 2003). The choices around each of these institutions have become far more complex and individualised with the repercussions of each choice having the potential to significantly impact on future options (Beck 1994). Certainly, the sequencing of the life course has become far more malleable with the introduction of life-long education, increasing flexibility with regard to entries and exits to and from the labour force; control over the decisions relating to childbearing; and greater flexibility around the formation and dissolution of marriage with consequent impacts on family structures. The abundance of choice and the complexity inherent in the decision-making process means that life in reflexive modernity is far more like a chess game than a game of draughts.

2.5 Conclusion

This chapter has drawn on both demographic and socio-cultural theories of social change to inform the development of a framework from which to examine how the baby boomers are likely to age. The Ageing and Society Paradigm, with its emphasis on the ageing process, social change and the cohort concept, provides a rational theoretical framework from which to examine how social change has influenced the capacity of baby boomers to age well and to prepare for later life. As a theoretical perspective it focuses on the process of social change and highlights the cohort concept as a central analytical device for studying the impact of social change on successive cohorts and for identifying the structural and individual lags that arise as social change is integrated through the natural processes of cohort replacement. It shows that each cohort has a unique character arising from the particular social, economic and historical context that prevailed at birth and as the cohort reached maturity. Each cohort is
thus differentiated from previous cohorts and will also face different constraints and opportunities as it progresses through the life course. Its focus on the mechanisms of social change means that, methodologically, it provides a framework that will facilitate an analysis of the baby boom cohort that is capable of providing a more informed basis for future interventions and policies. However, in contrast with theories of reflexive modernity and individualisation it does not consider the origins and nature of change as reflected in the social conditions of the last half century. These socio-cultural theories are important for the insights they provide into how the contemporary individual is constituted within society and for their explanatory value in relation to the significant changes that are indicative of the Second Demographic Transition. Although social change is continuous, rapid social change, such as that experienced by the baby boom cohort, is likely to produce more asynchronies than when the pace of change is slower. This underlines the need for understanding how social change has altered both the internal and external context experienced by the baby boomer cohort and what this means for how they will approach and experience later life. The demographic and socio-cultural theories discussed in this chapter are complementary rather than oppositional, with both providing useful insights for the analysis of the baby boomer cohort, which will be presented in subsequent chapters.
Chapter 3: Research Design and Methodology

3.1 Introduction

This chapter sets out the rationale for the research methodology. Section two explains the epistemological standpoint of the thesis while Section three explains the research design. Section four outlines the methods used to compare baby boomers with their predecessors and describes the data sources used in the social change component of the study. Section five explains the conceptual framework used to analyse how baby boomers prepare for later life, while the sixth section expands on Section five through a critical review of contemporary models of positive ageing. Section seven outlines the methods used to analyse preparation for later life and discusses the study sample, data sources, focus groups, and survey design and administration.

3.2 Epistemological standpoint

Since this thesis aims to describe and examine how a specific birth cohort approaches ageing at a particular historical time, under conditions that are different from those in which previous generations have aged, it takes a historical perspective in order to better understand the factors that will influence how they will age. In doing this it draws on the notion that ‘... history is made through the active involvements and struggles of human beings, and yet at the same time, both forms those human beings and produces outcomes that they neither intend, nor foresee’ (Giddens 1982:166). This notion reflects the duality of agency and structure as discussed by Giddens (1982) and Riley et al. (1988, 1999) and identifies the dynamic nature of the processes and institutions that constitute social life. It stands in opposition to a structural functionalist model that treats social facts as if they have an intrinsic reality separate from the human beings they represent. This thesis works on the assumption that ‘... all knowledge, and therefore all meaningful reality as such, is contingent upon human practices, being constructed
in and out of interaction between human beings and their world, and developed and transmitted within an essentially social context’ (Crotty 1998:42). Hence, while much of the data used in this study is quantifiable and measurable, its transformation into knowledge, into something meaningful, is inevitably coloured by how the researcher, and the subjects of the research, construct meaning. For instance, the orientation of the researcher influences the research design, the choice of methods and the selection of data to be analysed, while the information provided by participants may be influenced by their role as subjects and by how they interpret their world, or may be modified to accord with notions of social acceptability.

Both researcher and subjects add an unavoidable subjective dimension to the research that precludes the findings from being construed as objective knowledge. Hence, although the research seeks to provide a detailed description of baby boomers and to both explain and understand how they approach later life, it does this from an epistemological standpoint that is fundamentally constructionist rather than positivist. This does not preclude the making of generalisations, particularly where the aim is to describe the characteristics of the cohort and where the methods of analysis comply with accepted statistical standards. However, where the intention is to understand the factors that influence later life preparation, or which differentiate cohort members from each other, the thesis also aims to identify meaningful patterns or associations that suggest a need for further research. Overall, the researcher aims to interpret the results with reference to the historical, anthropological and critical dimensions identified by Giddens (1982), as being critical to the sociological imagination. Given that the researcher influences the meaning that is constructed out of the data, it is appropriate at this point to provide a brief biography. The researcher is a baby boomer and a female of European descent. She has an academic background in the humanities, with majors in English literature and Politics and post graduate qualifications in Secondary Education and Urban and Regional Planning. A female baby boomer is a fairly typical example of the sandwich generation, juggling parental responsibilities with elder care, work and study.
3.3 Research design

This thesis uses a multi-level, mixed methods and multi-disciplinary approach in its study of baby boomers. This makes it possible to identify broad macro-level social trends, while also allowing a more in-depth understanding of the attitudes, expectations and constraints that influence how different subgroups of baby boomers approach later life. The use of a representative sample of baby boomers means that results obtained through quantitative methods can be generalised to the wider population of North West Adelaide baby boomers while the use of qualitative data sourced from focus groups and literature reviews aids in a more meaningful interpretation of the quantitative data. One of the key aims of this thesis is to provide a detailed description of baby boomers that encompasses multiple aspects of their lives. In this sense it is a multi-disciplinary project that draws on methods used in the fields of demography, epidemiology, gerontology and sociology.

A central aim of this research is to achieve an understanding of how baby boomers will age and of the individual, social and institutional processes that contribute to, or detract from, their capacity to age well. Based on the theoretical explanations provided in Chapter 2 the first component of this thesis draws on the principles of cohort flow to identify how social change is likely to influence how baby boomers will age and to highlight how they differ from their predecessors. To accomplish this it uses a modified form of inter-cohort analysis in conjunction with a historical review of social change over the 20th century. The second component of the thesis shifts the focus from the impact of social change to an analysis of the cohort itself. Implementing progressively finer grained statistical analysis it seeks to identify variations within the cohort and the extent to which particular social and individual characteristics are associated with different degrees of preparedness for later life.
3.4 Component 1 – Social Change

3.4.1 Period versus Cohort Analysis

Two of the most commonly used methods available to the researcher who wishes to establish the impact of social change on the ageing process are period and cohort analysis. Period analysis uses a cross-sectional approach to analyse populations made up of a variety of age groups and takes account of the origins of each age group when interpreting the data. Cohort analysis focuses on a specifically defined group that is analysed over time (Rowland 2003b). An inter-cohort analysis compares the experiences of two different aged cohorts over a number of years. The value of inter-cohort analysis lies in its ability to assist in determining whether cohorts ‘…have had experiences in common or whether new developments have occurred’ (Rowland 2003b:138). In addition, it is particularly useful for identifying the impact of social change on the ageing process because differences or similarities between the ageing patterns of members of different cohorts can highlight the relative importance of biological, psychological or social explanations whereas this is less evident in period analysis (Riley et al. 1988:261).

The primary intention of the first component of the study is to focus on the cumulative effects of social change on baby boomer lifestyles and on how these changes have influenced both the context in which they will age and the personal characteristics with which they confront later life. In this sense, a comparison with previous generations is important because it will identify social and attitudinal differences that affect the resources they bring to later life and the way in which they negotiate this transition. However, a lack of access to suitable longitudinal data means that it is difficult to trace the experiences of each cohort over time at a statistical level. To compensate for this, the analysis uses two approaches. First, it uses a historical and theoretical approach to develop an understanding of the temporal origins of each cohort (period analysis) and second, its examination of each cohort is based on census data collected at two different points in time so that the characteristics of each cohort can be compared at a common age (cohort analysis).
In comparing both cohorts at the same age it eliminates the problem of discriminating between age and cohort effects and makes it possible to identify differences due to social change. This also facilitates an assessment of the extent to which the theories of reflexive modernity and individualisation, discussed in Chapter 2, are empirically supported. In addition, the primary point of interest is caught within this midlife window of 45-54 years of age, as the resources available at this stage of the life course provide a reasonable indication of future resource availability. This will help to contextualise the second component of the thesis that addresses the factors that constrain the ability of baby boomers to age well and to strategically position themselves for later life.

A number of factors were taken into account when determining which birth cohorts to study. First, it was deemed important to compare baby boomers with a preceding birth cohort whose temporal location was sufficiently distant from baby boomers for the impact of social change to be identifiable and, if possible, to use a birth cohort that could be construed as roughly equivalent to the parents of baby boomers. Second, it was influenced by technical considerations such as the number and type of variables available in different census years. For instance, using census data collected prior to 1981 would considerably limit the number of variables available for comparison. Similarly, although the definition of baby boomers used in this study stretches over 20 years, a meaningful comparison of two twenty year cohorts was not technically possible, given the limitations of census data. Table 3.1 shows the initial calculations used to determine appropriate birth cohorts for comparison.

### Table 3.1: Age Range of Birth Cohorts in Different Census Years

<table>
<thead>
<tr>
<th>Birth Cohort Years</th>
<th>Age Range in Census Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1925-1935</td>
<td>36-46</td>
</tr>
<tr>
<td>1927-1936</td>
<td>35-44</td>
</tr>
<tr>
<td>1950-1959</td>
<td>12-21</td>
</tr>
<tr>
<td>1956-1965</td>
<td>6-15</td>
</tr>
</tbody>
</table>

Source: Author
The best match, in terms of age range, census years and birth cohort years, was 1927-1936 for the parent cohort, aged 45-54 in the 1981 census, and 1952-1961 for the baby boomer cohort, aged 45-54 in the 2006 census.

3.4.2 The Census and Other Secondary Sources

Chapter 4 undertakes a statistical comparison of baby boomers and their predecessors based on census data collected by the Australian Bureau of Statistics (ABS). The first national Census was conducted in 1911 and since 1961 has been held at five year intervals. The social change component of this study primarily uses data from the 1981, 1986 and 2001 Household Sample Files (HSF) (ABS 1981b, 1986, 2001b) and the 2006 Census Sample File (CSF) (ABS 2006b). However, it also makes use of the Australian Population Historical Statistics compiled by the ABS (2008) and of ABS Survey data. The sample files consist of a comprehensive Confidentialised Unit Record File (CURF) of census variables that contain a small random sample of private households and associated persons, and a small random sample of persons in non-private dwellings (ABS 1983 2006b). The HSFs and CSF used in this study are based on a one per cent sample of the Australian population. A national sample was used in order to ensure sufficient statistical power. Although the sample files represent only a small part of the Australian population they are still larger than any other available samples and contain nearly all the data on individuals collected at the Census (Hugo 1986a). One of the advantages they offer is the ability to develop tailored statistical analyses to answer specific questions for particular age groups.

The statistical comparison is embedded in an extensive literature review that draws on a variety of textual material from the sources listed in Table 3.2. A substantial proportion of this literature reports on qualitative or quantitative research and, where appropriate, tables or graphs from this research have been reproduced. Use of these sources has provided access to a wide range of in-depth critical, qualitative and quantitative research focused on key indicators of social change in diverse areas as diverse as fertility, migration, marriage, church attendance, the labour market and education.
Table 3.2: Key Sources Used for the Social Change Component

<table>
<thead>
<tr>
<th>ABS Surveys and Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Australian Social Trends</td>
</tr>
<tr>
<td>- Marriages and Divorces Australia</td>
</tr>
<tr>
<td>- Australian Year Book</td>
</tr>
<tr>
<td>Government Institutes</td>
</tr>
<tr>
<td>- Australian Institute of Health and Welfare</td>
</tr>
<tr>
<td>- Australian Institute of Family Studies</td>
</tr>
<tr>
<td>General</td>
</tr>
<tr>
<td>- ABC Broadcasting Commission</td>
</tr>
<tr>
<td>- The Australian Family Association</td>
</tr>
<tr>
<td>- NCLS Research (National Church Life Survey)</td>
</tr>
<tr>
<td>- Journal articles</td>
</tr>
<tr>
<td>- Books</td>
</tr>
<tr>
<td>Research Institutes and Centres</td>
</tr>
<tr>
<td>- Centre for Population and Urban Research, Monash University</td>
</tr>
<tr>
<td>- Centre for Economic Policy Research, Australian National University</td>
</tr>
<tr>
<td>- National Institute of Labour Studies, Flinders University of South Australia</td>
</tr>
<tr>
<td>- Centre for Continuing Education, Australian National University</td>
</tr>
<tr>
<td>Government Departments</td>
</tr>
<tr>
<td>- Guaranteeing Futures Initiative, Tasmanian Government and the Southern Tasmanian Councils Authority (STCA)</td>
</tr>
<tr>
<td>- Department of Prime Minister and Cabinet, Commonwealth of Australia</td>
</tr>
</tbody>
</table>

Source: Author

3.4.3 Methods

Chapter 4 provides an historical overview of key social changes that occurred over the 20th century and illustrates the effect of these changes at the population level through examining differences in the characteristics of each birth cohort. Variables were selected for analysis based on the theories of reflexive modernity and individualisation discussed in Chapter 2. A key proposition put forward in Chapter 2 was that the transition from early to late modernity was characterised by the transformation of everyday institutions such as marriage, education and religion. Hence it was expected that a comparison of variables relating to these institutions would show considerable differences between cohorts. The key variables analysed in Chapter 4 are listed in Table 3.3 and, as shown, nearly all variables were analysed by gender. Although a more in-depth analysis could have been achieved using a broader range of independent variables, the primary aim of the social change component of the thesis is to
assess the extent to which the two cohorts differ rather than to explore in detail the differences within each cohort. However, as social change had such a significant impact on the status and experience of women it was deemed important to identify gender differences.

Table 3.3: Census Variables Analysed in Chapter 4

- Highest year of school completed by cohort and gender
- Non-school qualification by cohort and gender
- Percentage with non-school qualification with bachelor or higher degree by cohort and gender
- Religious affiliation of the Australian population
- Religious affiliation by cohort
- Religious affiliation by cohort and gender
- Religious affiliation by education level and gender for each cohort
- Religious affiliation by cohort and birthplace
- Choice of marriage celebrant 1906 to 2003
- Registered marital status by gender
- Social marital status by gender (2006 only)
- Family type by cohort and gender
- Household composition by cohort and gender
- Children ever born

Source: Author

Comparison of census data from different years is frequently problematic, particularly when there is a large time gap, as census questions change over time in response to emerging social issues, policy priorities and funding allocations. In some years, and for some variables, accurate comparisons are aided by concordances and data dictionaries prepared by the ABS. However, for 1981 such explanatory guidelines are often non-existent or inadequate and the recoding of variables has been at the discretion of the researcher as set out in Appendix 2.1.

Data was analysed using frequencies and cross tabulations. Prior to the analysis, variables from each census year were first recoded to provide equivalent categories. Except for the following two instances, the analysis used census data from the years 1981 and 2006. The criteria used to classify Family Type and Household Composition were substantially different in each of these census years, and, in addition, the Family Type variable was not available in the one per cent CSF of the 2006 Census used in this study. In order to achieve the best comparison possible the Family Type variable was compared using the years 1981 and 2001 while the Household Composition variable was compared using the years 1986 and 2006.
3.5 The Conceptual Framework for Later Life Preparation

The conceptual framework used to examine how baby boomers prepare for later life is based on a model developed by a group of Canadian researchers who note that:

> Situated in the life course perspective, this model invites a comprehensive and systematic study of later life planning. It describes a dynamic process that portrays the interplay between social structure and human agency.

Denton, French et al. 2001:abstract

In addition, with reference to the writings of Esping-Anderson (1999), as well as those of Giddens (1991), Beck (1992), and Giddens, Beck and Lash (1994), they note how the conditions of reflexive or high modernity fundamentally change both the structure of social risk (Esping-Anderson) and the way in which individuals approach the management of risk (Giddens, Beck and Lash). In this sense, it is a conceptual framework that is consonant with the key objectives of this thesis, which are to understand the impact of social change on how different subgroups of baby boomers might prepare for later life. Although there are substantial differences between Canada and Australia there are also strong structural similarities in that both nations: are based on a western democratic model in which the welfare state has played a key role; have experienced similar social change over the last half of the twentieth century; are ageing at a similar rate (Productivity Commission 2005); and have experienced a post-war baby boom. Hence, the structure of the conceptual framework and the fundamental assumptions within the model are appropriate to an analysis of later life planning in the Australian context.

Later life is construed as a time of increased social and financial risk and hence the way in which the structure of risk has been altered by social change, and the different strategies used to manage risk at both the individual and the macro level, are integral to this model. As one element of their model, Denton et al. (2001) draw on the work of Esping-Anderson (1999) to define how social risk is structured in the welfare state with this being summarised in Table 3.4.
Table 3.4: Social Risks and how they are Managed

NOTE:
This table is included on page 53 of the print copy of the thesis held in the University of Adelaide Library.

Under post-industrial and post-welfare conditions, the complexities of global financial markets, the precariousness of modern labour markets, and changes to family structures, lifestyles and relationships have reduced the capacity of the state, the market and the family to manage risk effectively (Denton et al. 2001:4). In this sense, the social risks of today differ from those of the past in that they ‘… come primarily from the revolution that is downloading the management of social risks from the state, the market and the family to individuals’ (Denton et al. 2001:4). However, Denton et al. note that Esping-Anderson’s model of risk structure does not adequately consider the role of human agency, which is better identified by Giddens and Beck who argue that under conditions of reflexive modernity ‘… individuals increasingly reflect upon the social conditions of their lives and make choices intended to improve those conditions in a process that Giddens (1991) refers to as “reflexive life planning”’ (Denton et al. 2001:4). Hence, this framework has been developed with the aim of observing the influence of both structures and agency on how individuals approach later life under conditions of reflexive modernity.

Influenced by insurance strategies suggested by Becker and Ehrlick (1972), Denton et al. (2001:5) developed their model around three types of preparations for later life: public...
protection, which refers to state provided benefits such as the health system, housing, and retirement income; self-insurance, which relates to the financial preparations individuals make for themselves; and self-protection, which includes the non-financial preparations ‘... individuals make to avoid disease and disability, maintain high physical and cognitive function and sustain engagement in social and productive activities’ (Denton et al. 2001:5). These three elements form a portfolio of resources that individuals take with them into later life. This portfolio is dynamic because its contents are likely to vary across the life course in line with changes to social policy and individual life circumstances. In addition, the capacity to build and maintain the portfolio is likely to vary according to the social and historical location of the individual. However, the choices individuals make can also have a modifying influence on the effects of social structure (Denton et al. 2001). Contributions to the portfolio may be made consciously, through traditional planning mechanisms, or less deliberately through reflexive planning (Kemp and Denton, 2003). Reflexive planning is most likely to be evident in the self-protection domain, a domain that is not traditionally associated with planning for retirement. Within this context, it is perhaps more apt to consider this thesis a study of how baby boomers strategically position themselves for later life rather than a study of retirement intentions or retirement planning in the traditional sense.

3.6 Positive models of Ageing

Denton et al. (2001) base their concept of self-protection on the model of successful ageing developed by Rowe and Kahn (1997) and, to some extent, this study does likewise. Notions of successful ageing have gained a wide currency and the increasing use of a productive or successful ageing rhetoric in public policy demonstrates a commitment to replacing the image of old age as a time of dependency with one characterised by health, wellbeing, productivity and consumption (Denton et al. 2001; Gilleard and Higgs 2002; Estes et al. 2003a; Biggs et al. 2006). Such rhetoric is frequently viewed favourably because it negates the idea of older people as a burden and seeks to reduce anxiety about the impacts of structural ageing (Estes et al. 2003a). However, it has also been critiqued as a means of gaining social consent for policies such as the extension of labour participation and the reduction of health and pension costs (Estes et al. 2003b). Such policies, while framed as providing elders with greater choice
and opportunity, may not always be in the best interests of individuals and may in fact have negative impacts, particularly on disadvantaged groups (Biggs et al. 2006). This means that how successful ageing is conceptualised and defined has significant implications for how ageing is culturally constructed, for the development of policies associated with ageing and for how individuals experience the ageing process. This section briefly examines the concept of positive ageing and critiques the Rowe and Kahn model (1997) on which Denton et al. (2001) base their concept of self-protection. It then describes how this study combines Rowe and Kahn’s model (1997) with elements from other positive ageing models to provide a more rounded theoretical perspective for the self-protection component.

There is an extensive body of research aimed at untangling what it means to age well and how this can best be achieved. In the 20th century, Havighurst (1961) developed the concept of successful ageing from a psychosocial perspective, Erikson et al. (1986) from a life course perspective, Fries (1990) from a medical/public health perspective and Rowe and Kahn (1987, 1997) from a biomedical perspective, while the Baltes (1990), and Vaillant (2003) have explored positive ageing from a multidisciplinary perspective. As a consequence, the literature abounds with inter-related concepts such as positive ageing, successful ageing, productive ageing, active ageing and healthy ageing (World Health Organisation 2002; Estes et al. 2003b; Peel et al. 2004; Bowling and Dieppe 2005; Hinterlong et al. 2007; Franklin and Tate 2009). Definitions for ‘ageing well’ often vary in their emphasis depending on whether they originate from a biomedical or psychosocial perspective. Biomedical models of successful ageing emphasise the optimisation of life expectancy and the maintenance of health and functional abilities, while psychosocial models emphasise life satisfaction, social participation and psychological resources (Bowling and Dieppe 2005; Franklin and Tate 2009). Despite these differences in approach there are a number of outcome criteria (Table 3.5) that are typically associated with most positive models of ageing.

**Table 3.5: Outcome Criteria for Successful Ageing**

<table>
<thead>
<tr>
<th>Source: Baltes and Baltes (1990:5)</th>
</tr>
</thead>
</table>

NOTE: This table is included on page 55 of the print copy of the thesis held in the University of Adelaide Library.
In their seminal paper, ‘Human Aging: Usual and Successful’, Rowe and Kahn (1987) asserted that many physical and cognitive changes previously deemed an intrinsic and normal part of the aging process could be modified or prevented through changes to lifestyle and behaviours and, in a later paper, that intrinsic factors such as genetic make-up do not ‘... dominate the determination of risk in advancing age’ (Rowe and Kahn 1997:435). In their view, successful ageing is strongly associated with the individual will and constructed as an achievement that is ‘... dependent on individual choices and behaviours ....’ and which ‘... can be attained through individual choice and effort’ (Rowe and Kahn 1998:37). Within this framework, successful aging consists of the three inter-related domains set out below (Rowe and Kahn 1997:433):

1. **the low probability of disease and disease related disability**
2. **high cognitive and physical functional capacity, and**
3. **active engagement with life.**

Rowe and Kahn (1997) assert that while these domains are to some extent hierarchical, the concept of successful ageing is represented most fully when all three are present. The first domain, a low risk of disease and disease related disability, forms the basis for continued cognitive and physical functionality, which, in turn, provides the potential for active engagement. Active engagement is broken down into two key elements: interpersonal relations and productive activities. Productive activity is presented as contributing to both individual and social wellbeing with a strong emphasis on the need for continued productive activity if older people are to be valued rather than regarded as a burden. Productive activities are considered to be any activities ‘... paid or unpaid, that create goods or services of economic value’ (Rowe and Kahn 1997:438). This clearly excludes activities that are simply personally meaningful and which cannot be measured in economic terms. Table 3.6 sets out key predictors for successful ageing in relation to each of the three domains.
### Table 3.6: Predictors and Outcomes of Successful Ageing

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Predictors</th>
</tr>
</thead>
</table>
| Low probability of disease and disease-related disability | • Healthy weight and fat distribution  
|                                                     | • Physical activity  
|                                                     | • Healthy Diet                                                             |
| High cognitive and physical functional capacity     | • Education  
|                                                     | • Peak pulmonary flow rate  
|                                                     | • Strenuous activity in and around the home  
|                                                     | • Perceived self efficacy  
|                                                     | • Socio-demographic status  
|                                                     | • Health  
|                                                     | • Physical activity  
|                                                     | • Positive relations with family and friends                               |
| Active Engagement with Life                         | • Functional capacity  
|                                                     | • Education  
|                                                     | • Self Efficacy  
|                                                     | • Marital Status                                                           |

Source: Derived from Rowe & Kahn (1997)

Rowe & Kahn’s (1997) model can be critiqued on a number of levels. First, their definition of success sets standards that may be difficult for people to reach and sustain at any age, suggesting as it does that successful ageing is equivalent to optimal or peak functioning. Indeed, Bowling and Dieppe (2005:1549) draw attention to research by Strawbridge (2002) which showed that around a half of older people could be categorised as ageing successfully by their own criteria, fewer than a fifth of this sample met the criteria developed by Rowe & Kahn. The popularisation of this model as an achievable ideal is, therefore, likely to contribute to a degree of cognitive dissonance among older people, who may internalise successful ageing guidelines but inevitably find themselves falling short. This may lead to feelings of failure and reduced self efficacy that detracts from overall wellbeing and health.

Second, although Rowe & Kahn’s (1987; 1997; 1998) research into the differences between usual and successful ageing was informed by their recognition of the considerable heterogeneity in the older population their focus on optimal achievement in all three domains of health, function and engagement, tends to invoke absolute standards to measure success and to assume that these standards are appropriate to all. There is little recognition of what Schulz
and Heckhausen (1996) refer to as inter-individual\(^3\) and intra-individual\(^4\) relativist standards of success.

Third, their delineation of successful ageing as being a result of ‘... having desired it, planned it, worked for it’ and as being attainable ‘... through individual choice and effort’ (Rowe & Kahn; 1998: 37) reflects a tendency to foreground the power of individual agency with little recognition of the structural and environmental constraints that influence lifestyles or the choices individuals make. Although the intention may be to empower (individuals are no longer at the mercy of their genetic inheritance) it also opens the way to moral judgements on those who, for a variety of reasons, do not measure up to this model of success. This has implications for its value as a guide to policy development because it de-emphasises the importance of a government role in facilitating healthy environments and the need to acknowledge the impact of structural inequalities on health (Estes et al. 2003a).

Fourth, although they examine how decisions and resources at different levels of government influence the ability of individuals to age successfully (Rowe and Kahn 1998:182) this is primarily in relation to the facilitation of continued engagement through the expansion of work and educational opportunities. They do not identify a need to develop social strategies, or to allocate social resources, to support individuals to adopt healthy lifestyles and hence to achieve success in the first two domains of health and function.

Fifth, their concept of success emphasises observable outcomes that lend themselves to objective measurement, and places much less emphasis on factors that are harder to measure, such as meaning in life and spirituality, which are poorly addressed if at all. This is particularly evident in relation to the active engagement domain, for while they do not equate productivity with paid work, there is, nevertheless, a strong emphasis on economic value. There is no discussion of the value of meaningful activity for its own sake, that it can have value simply because it brings personal pleasure or joy. In this sense the model lacks a

\(^3\) Inter-individual relativist standard ‘... based on membership in a particular reference group (e.g. polio victim, “old” person)’ (Schultz and Heckhausen:704)

\(^4\) Intra-individual relativist standard based on ‘... specific performance history of a given individual life’ (Schultz and Heckhausen:704)
spiritual dimension, a sense that meaningful engagement that brings richness to the ageing experience can be sourced from within a person rather than only in relations with others or through external activities that have a quantifiable value.

Although the criticisms outlined above challenge the usefulness of this model for developing a holistic understanding of what it means to age well, it provides an appropriate framework from which to identify broad health trends that can provide a basis for future research and also inform policy in relation to health promotion and prevention initiatives. However, it is important to acknowledge the limitations of this approach and to be clear that there is more to ageing well than a healthy body and the capacity to work. In order to provide a more rounded theoretical framework for the self-protection component, this study also draws on concepts from other prominent positive models of ageing such as those developed by Vaillant (2003) and by the Baltes (1990) with brief descriptions of these models included in Appendices 2.2 and 2.3. Both Vaillant (2003) and the Baltes (1990) present psychosocial models of successful ageing that are contextualised within a lifespan developmental framework. Although the importance of healthy lifestyles is acknowledged, physical health is not used as a primary standard for identifying the capacity to age well. This creates significant differences in approach from the biomedical model put forward by Rowe and Kahn (1997).

In contrast to Rowe & Kahn’s (1997) model, Baltes and Baltes (1990) emphasise that successful ageing is a process that can take multiple forms. Successful ageing is based on the efficacy of a system rather than on the extent to which an individual meets certain pre-defined developmental outcomes or goals that are normative for a particular society (Baltes and Baltes 1990). In this concept, successful ageing relates to the ability to adapt to the changes that ageing may bring and, in some instances, this might mean relinquishing certain attributes or behaviours that are generally deemed desirable in order to maintain others that the individual deems important (Baltes and Baltes 1990:24). The Baltes (1990) articulate successful ageing as something that occurs over time, and which is influenced by both a person’s psychological

5 It should be noted, however, that this still allows for considerable differences in approach. For instance, Vaillant (2003) articulates social development through the developmental task approach exemplified in the work of Erikson and emotional development through Freud’s concept of involuntary coping mechanisms. Baltes & Baltes (1990) draw on their own model of Selection, Optimisation and Compensation (SOC).
make-up and by the resources available through the social environment. This identifies the capacity to age successfully as being influenced by both agency and structure and makes successful ageing the responsibility of both the individual and society. It therefore provides a much needed counterpoint to the strong emphasis on individual responsibility inherent in the Rowe & Kahn model (1998). In some respects, Vaillant’s (2003) model is similar to Rowe and Kahn’s (1997) in that it identifies a range of measurable outcomes associated with ageing well, indeed, his model has been critiqued as providing ‘… a policy tool to justify the rationing of health care’ (Estes et al. 2003a:74). This criticism is based on his construction of a testable model in which the presence or absence of a set of risk factors at age 50 can be used to predict the extent to which positive outcomes are likely to be experienced at age 80 (Vaillant, 1990; 2003). However, Vaillant’s (2003) model also resonates with the Baltes (1990), as success is not defined by optimal health and functioning alone, but includes the capacity to adapt to the conditions that ageing brings. In this model, ‘Positive ageing must always reflect vital reaction to change, to disease, and to environmental imbalance’ (Vaillant 2003:161). Vaillant (2003) also identifies joy, creativity, playfulness, and the capacity to experience a sense of meaning in life, as important ingredients in the ability to age well. These characteristics reflect the importance of being engaged with life but are qualitatively different from the type of active engagement put forward in the Rowe and Kahn (1997) model.

It is widely recognised that the concept of positive ageing is difficult to define with different definitions reflecting particular disciplinary orientations, world views, theoretical viewpoints and political agendas (Lasch 1977; Cole 1983; Estes et al. 2003a; Bowling and Dieppe 2005; Franklin and Tate 2009). In short, it is probably impossible to come up with a model of positive ageing that is acceptable to everyone. Indeed, it has been argued that most contemporary models of positive ageing are fundamentally negative because they are embedded in a biological construction of ageing, which, by definition, is one of decline and senescence (Cole 1983). In this context, ageing can only be depicted as positive when it carries all the hallmarks of youth – health, productivity, and independence - making positive constructions of old age in some sense oxymoronic. This biological construction of ageing with its strong association between ageing and decline has been attributed to the dominance of a scientific world view and the concomitant loss of a spiritual dimension that is characteristic of modernity (Cole, 1983). In the contemporary world, the burden of meaning is shifted to the
individual whose essential reference point is their own embodiment. In such a context the decline of the body represents a significant threat to identity and hence it is not difficult for constructs that promise to retard or reverse such decline to gain a firm foothold. This focus on the ageing body has generated a culture that finds it difficult to celebrate old age unless it can be imbued with the biological characteristics of youth and, as a result, for much of the 20th century, ageing has been construed as a problem to be managed rather than an experience to be lived in a meaningful way (Lasch 1977).

3.7 Component 2 - Preparation for Later Life - Methods

3.7.1 The North West Adelaide Health Study (NWAHS)

The study population for this component of the thesis has been drawn from the NWAHS and includes baby boomers born between 1946 and 1965. The NWAHS is a population-based biomedical cohort study in the north western sector of metropolitan Adelaide, South Australia and incorporates a representative cross section of urban-based adults (18-90 years old) (Grant et al. 2009). The north western region of Adelaide includes the full spectrum of metropolitan ecological contexts found in Australian capital cities in which 63.3% of the national population lived in 2001. The sector from which the sample was drawn includes approximately half of the population of metropolitan Adelaide and one quarter of South Australia’s population (Grant et al. 2006). The size of the sample means that most relevant ethnic, age, and socio-economic subgroups can be identified and sufficiently large subsamples extracted for examination. The Electronic White Pages was used as the sampling frame and all households in the northern and western parts of Adelaide with a telephone connected were eligible for selection in the study. Participants had to be 18 years or over and individuals within the household who were the last person to have a birthday were selected for the study. This method of randomly selecting within the household was designed to avoid bias towards those who were unemployed, retired or home-makers. To avoid potential bias due to the differing probabilities of selection in the sample, data was weighted to the ABS 1999
Estimated Resident Population and the 2001 Census data by region, age group, sex and probability of selection in the household.

The NWAHS is now in its third stage and has collected a wide range of biomedical and self-report health data as well as standard information on socio-economic characteristics. Stage 1 was implemented between 2000 and 2003 and included the initial recruitment of the sample (n=4060) and a baseline clinic examination. The response rate for the initial sample is shown in Figure 3.1.

Figure 3.1: Response Rates for Stage 1 of the NWAHS

Source: Grant, Chittleborough et al. 2006:5

Data was collected through a telephone survey using CATI (Computer Assisted Telephone Interview) technology, a self-administered questionnaire, and a clinic examination. Stage 1 focused on asthma, chronic obstructive pulmonary disorder (COPD), diabetes, cardio-vascular disease and related risk factors. Stage 2, which was implemented between May 2004 and February 2006, used the same data collection methods and collected information similar to that in Stage 1, but with additional data on arthritis, kidney function, osteoporosis and depression. The attrition rate between Stages 1 and 2 has been remarkably low with response rates for Stage 2 clinic participants being equivalent to 80.1% of eligible participants (those
who participated in the clinic examination in Stage 1 (n=3206) and response rates for Stage 2 CATI and self-administered questionnaire participants equivalent to 90.1% of eligible participants (n=3564) (Population Research and Outcomes Study (PROS) Unit, 2008). Stage 3 commenced in June 2008 and will continue to follow up on stages 1 and 2 but will also collect additional data on a range of other health variables (PROS Unit, 2008). Detailed information about the study’s conception and methodology has been previously published (Taylor et al. 1998; Grant et al. 2006; Taylor et al. 2006). A brief summary of the key Stage 1 and 2 variables relevant for this thesis is provided in Appendix 2.4 and a diagram identifying the response rate, time line and phases of the study is included in Appendix 2.5.

The NWAHS provides an excellent database from which to draw a reasonably large and representative sample of baby boomers. The study provides ongoing opportunities to collect additional data and is currently developing data linkage with other life-course health related datasets. However, for this study on baby boomers there are also some limitations. Although the sample size is large enough to enable analysis of subgroups within the cohort there are some variables of interest for which a larger sample would be required. Equally, there was little scope to interview participants and collect qualitative data.

### 3.7.2 Data Sources

This component of the thesis primarily uses unpublished data from Stage 2 of the NWAHS and from the Telephone Follow-Up (TFU) Survey 2, administered to NWAHS participants between July and November of 2007\(^6\). The rationale for using Stage 2 rather than Stage 1 data was threefold. Firstly, there was little numerical benefit from using Stage 1 data and secondly, Stage 2 contained additional variables relevant to this study. Thirdly, many of the bivariate and multivariate analyses undertaken in this study combine secondary data from the NWAHS with primary data collected by the author in the TFU Survey 2 conducted in 2007. This means there is an inevitable time lag in which some variables, such as income, marital status and

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\(^6\) The NWAHS formed the basis for the Nutrition, Obesity, Lifestyle and Environment (NOBLE) Study which included a number of PhD candidates with the author joining the project partway through the funding period. Funds from the NOBLE Study were used by students to collect additional data relevant to their theses.
occupation, may have changed. Hence it was considered important to reduce the effects this might have by using data for which the collection dates were as close together as possible.

In Stage 2, data was collected through a telephone interview using CATI technology, two self-administered questionnaires (Questionnaire B and Questionnaire B1), and a clinic examination. Data collection methods and response rates for both Stages 1 and 2 have been previously reported (Grant, Chittleborough et al. 2006; Population Research & Outcome Studies Unit, May 2007). Stage 2 of the NWAHS used a number of previously validated instruments to collect data; those which are relevant to this study are briefly described in Appendix 2.6. Stage 2 data provide the basis for the description of chronic conditions and risk factors which is undertaken in Chapter 6.

The TFU Survey 2 included two questionnaires which, while collected separately were conceptualised as a whole, with their development being primarily informed by the conceptual framework used to analyse later life preparation. The first questionnaire was administered using CATI technology (Appendix 2.7) and the second was a self-administered Postal/Online questionnaire (Appendix 2.8). This survey was designed to collect a wide range of social data not available in Stage 1 or 2 of the NWAHS and, together with the health and demographic data contained in Stage 2, forms the database used to examine preparation for later life. Table 3.7 sets out the response rates for each of the survey instruments and Table 3.8 summarises the key data sources used in each of the results chapters.

### Table 3.7: Response Rates for Each Survey Instrument

<table>
<thead>
<tr>
<th>Survey Instrument</th>
<th>All NWAHS Participants n</th>
<th>Baby Boomer Participants n</th>
<th>Baby Boomer Participants as % of NWAHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 2 Clinic participants</td>
<td>3206</td>
<td>1179</td>
<td>36.8</td>
</tr>
<tr>
<td>Stage 2 CATI questionnaire</td>
<td>3502</td>
<td>1272</td>
<td>36.3</td>
</tr>
<tr>
<td>Stage 2 Questionnaire B</td>
<td>3260</td>
<td>1195</td>
<td>36.8</td>
</tr>
<tr>
<td>Stage 2 Questionnaire B1 - Question 39</td>
<td>2406</td>
<td>764</td>
<td>31.8</td>
</tr>
<tr>
<td>TFU Survey 2, CATI Questionnaire</td>
<td>2996</td>
<td>1058</td>
<td>35.3</td>
</tr>
<tr>
<td>TFU Survey 2, Postal/Online Questionnaire</td>
<td>N/A</td>
<td>797</td>
<td>26.6</td>
</tr>
</tbody>
</table>

1All response rates in this table refer to weighted data

Source: Author/NWAHS Data
Table 3.8: Data Sources Used in Results Chapters

<table>
<thead>
<tr>
<th>No.</th>
<th>Chapter Heading</th>
<th>Primary Data (NWAHS)</th>
<th>Secondary Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Health</td>
<td>TFU Survey 2, CATI Interview, TFU Survey 2, Postal/Online Quest</td>
<td>NWAHS Stage 2, Quest B &amp; B1, NWAHS Stage 2 - Clinic, CATI Interview, Quest B, ABS National Health Survey 2007-08</td>
</tr>
<tr>
<td>7</td>
<td>Active Engagement</td>
<td>TFU Survey 2, CATI Interview, TFU Survey 2, Postal/Online Quest</td>
<td>NWAHS Stage 2, Quest B, ABS Census 2006, OECD nd, Literature Review</td>
</tr>
<tr>
<td>8</td>
<td>Housing</td>
<td>TFU Survey 2, CATI Interview, TFU Survey 2, Postal/Online Quest</td>
<td>NWAHS Stage 2, Quest B, ABS Census 1981 and 2006, NWAHS Stage 2, Literature Review</td>
</tr>
<tr>
<td>9</td>
<td>Retirement Income</td>
<td>TFU Survey 2, CATI Interview, TFU Survey 2, Postal/Online Quest</td>
<td>NWAHS Stage 2 Quest B, Literature Review</td>
</tr>
</tbody>
</table>

Source: Author

3.7.3 Analysing the NWAHS Data

The analysis was directed by the conceptual framework outlined in Section 3.5 and was structured through the self-insurance and self-protection domains. Data analysis was first undertaken at the cohort level, by gender, and by earlier (1946-1955) and later (1956-1965) born cohorts. This analysis established the key characteristics of the cohort and formed the basis for a more in-depth analysis that explored variability within the cohort by disaggregating it into subgroups. The purpose of the subgroup analysis was to identify social differences within the baby boomer cohort and to examine how these differences influenced the capacity to develop and maintain adequate self-insurance and self-protection portfolios for later life.

With the exception of the non-planning group, the primary basis for defining a group for specific study was the presence of significant associations between socio-demographic characteristics and a range of health indicators. A more detailed account of how subgroups were selected is described in Appendix 2.9.

The subgroups selected for analysis are listed in the left-hand column of Table 3.9. Dichotomous variables were constructed for each of these subgroups so that they could be
accurately compared with the rest of the population; comparison groups are listed in the right hand column.

Table 3.9: Subgroups for Analysis

<table>
<thead>
<tr>
<th>At risk groups</th>
<th>N*</th>
<th>N**</th>
<th>Mainstream Groups</th>
<th>N*</th>
<th>N**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singles (divorced/separated, widowed, never married)</td>
<td>216</td>
<td>211</td>
<td>Couples (married or de facto)</td>
<td>841</td>
<td>585</td>
</tr>
<tr>
<td>Low income (&lt;$40,000)</td>
<td>293</td>
<td>240</td>
<td>Higher Income (&gt; $40,000)</td>
<td>662</td>
<td>500</td>
</tr>
<tr>
<td>Those with mild to severe depression (CES-D ≥16)</td>
<td>133</td>
<td>92</td>
<td>Those without depression (CES-D &lt;16)</td>
<td>898</td>
<td>684</td>
</tr>
<tr>
<td>The retired (as per classification in CATI questionnaire)</td>
<td>113</td>
<td>116</td>
<td>Those who are retired (as per classification in CATI questionnaire)</td>
<td>937</td>
<td>681</td>
</tr>
<tr>
<td>Non-planners (as per classification in CATI questionnaire)</td>
<td>360</td>
<td>242</td>
<td>Planners (as per classification in CATI questionnaire)</td>
<td>577</td>
<td>438</td>
</tr>
</tbody>
</table>

Note: *Weight=TFU Survey 2 (CATI); **Weight= TFU Survey 2 (Postal)

Preliminary analyses indicated that the first four subgroups shown in the left-hand column were at greater risk of poor health outcomes in later life. The fifth group (non-planners) includes those who classified themselves as not thinking about or planning for retirement or not intending to retire. Although the purpose of including non-planners was to identify differences between planners and non-planners, and to discover whether the propensity to plan was associated with better outcomes, subsequent chapters will show that non-planners can also be considered to be more at risk. To simplify the descriptive process, the subgroups identified in the left-hand column are called ‘at risk’ groups while the groups in the right-hand column, to which they are compared, are called ‘mainstream groups’.

The subgroup analysis has three aims. The first is to identify the extent to which baby boomers prepare, or reflexively plan, for later life (Chapter 5). The intention here is to identify not just the plans they make in terms of advice-seeking or finances but also the extent to which they make adjustments to their lifestyle with a view to improving their health and wellbeing as they age. The second aim is to explore the contents of baby boomers’ self-protection and self-insurance portfolios in terms of current resources (Chapters 6-9) and lifestyle practices (Chapters 5-7). The self-protection component of the analysis is framed through Rowe & Kahn’s (1997) health and active engagement domains for successful ageing.

7 The ‘health’ domain refers to the ‘low probability of disease and disease related disability’ domain as the second domain, ‘high cognitive and physical functional capacity’, has limited applicability in mid-life.
but also draws on Vaillant (2003) to expand the concept of active engagement to include personally meaningful engagement as well as productive and social engagement. In addition, the emphasis on resources is influenced by the Baltes (1990:19-21) who identified the strengthening of reserve capacities as a key strategy for ageing well. The third aim is to challenge the emphasis on individual agency, inherent in Rowe & Kahn’s (1998) model, by examining the factors baby boomers perceive as constraining their ability to take actions to safeguard their future health and wellbeing. This analysis is informed by the view that the choices individuals make are influenced by both psychological factors (Baltes and Baltes 1990) and socio-structural constraints, both of which vary according to individual life histories and social location (Dannefer and Uhlenberg 1999; Dannefer 2003).

Figure 3.2 summarises the key elements of the self-protection analysis. The analysis of self-insurance uses a similar framework in that it too examines existing resources, constraints to financial preparation and the types of preparations baby boomers make.

**Figure 3.2: Exploring Self-protection Factors in Relation to Successful Ageing**

<table>
<thead>
<tr>
<th>Resources</th>
<th>Constraints</th>
<th>Preparations/Reflexive Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Health</td>
<td>• To achieving a healthy and balanced life</td>
<td>• Eating habits</td>
</tr>
<tr>
<td>• Social support and interaction</td>
<td>• To maintaining physical activity</td>
<td>• Exercise</td>
</tr>
<tr>
<td>• Productive activity</td>
<td>• To social interaction</td>
<td>• Leisure</td>
</tr>
<tr>
<td>• Personally meaningful engagement</td>
<td>• To achieving housing preferences</td>
<td>• Social Life</td>
</tr>
<tr>
<td>• Living arrangements/housing</td>
<td></td>
<td>• Work</td>
</tr>
<tr>
<td>• Beliefs about healthy ageing and lifestyle</td>
<td></td>
<td>• Living arrangements</td>
</tr>
</tbody>
</table>

Source: Author
3.7.4 Statistical Analyses

Data was analysed using the Statistical Package for the Social Sciences versions 15 and 17. Frequencies, cross-tabulations, and means were produced to examine differences between earlier (1946-55) and later (1956-65) born cohorts, gender differences within and between cohorts and differences between at-risk and mainstream groups. Pearson’s chi square test or, where numbers were small, Fisher’s Exact Test, was used to determine statistically significant differences (Chapters 5-9). T-tests were used to assess the difference between means for health-related quality-of-life using the SF-36; serves of vegetables and fruit; glasses of water per day; and hours of sleep per night (Chapter 6). The Mann Whitney U test was used to assess the difference between means for the number of children, since this variable was not normally distributed. In reporting results from multiple response questions the percentage of cases, which is the percentage of the study population that has ticked each option, has been used rather than the percentage of responses.

Logistic regression analysis was used to determine the variables most strongly associated with particular health conditions and risk factors (Chapter 6) and with later life housing preferences (Chapter 8). Variables with a significance probability of less than 0.25 for association with the outcome variable were retained as candidate explanatory variables, in accordance with the recommendations of Hosmer and Lemeshow (2000). This is intended to exclude variables with too weak an association with the dependent variable to be of interest. The best set of explanatory variables for each outcome variable was based on a backward elimination of the least significant term, using a likelihood ratio test. Backward elimination of predictors is the preferred method because models including all predictor variables take account of relationships between all of the predictors in assessing the best set of predictors. Models based on forward selection of the most significant predictors cannot do this. Unlike ordinary least squares regression, where there is an exact solution, logistic regression is fit by an iterative proportional fitting algorithm. The solution is not exact but is correct in the limit. The Wald test is based on estimates of parameters and their standard errors, and is therefore necessarily an approximation. The likelihood ratio test is based on the log likelihood of the model, which is a more stable statistic. As a model based test it is more accurate. Generally, tests for interaction were conducted where they may have occurred and none were found. The
potential for confounding between predictors was ignored, as the purpose of the modelling was to find the most powerful predictors of the outcome in terms of statistical significance. The aim was primarily to identify the direction of the association but not the magnitude.

Analysis was also undertaken to assess the impact on health related quality-of-life of several key chronic conditions (Chapter 6). Drawing on methods used by Goldney et al. (2004b), a series of MANOVA analyses, controlling for age and sex, were conducted to examine the relationship between each of the conditions and each quality-of-life dimension. The MUPLUS procedure was used to produce weighted means for each quality-of-life variable, controlling for age and sex (Norusis, 1993). Mean quality-of-life scores were compared using t tests. Standard scores were graphed for the summary health Physical Component Score (PCS) and the Mental Component Score (MCS) dimensions. Standard scores were calculated for each dimension by dividing the difference between the quality-of-life scores for those with each condition and the dimension norm of the South Australian population by the standard deviation of the South Australian population dimension score (Garrat et al. 1993). Where this method has been used, the mean of the South Australian population is set at zero for each quality-of-life dimension, allowing comparisons to be made between those with the chronic condition and those without it. Kazis et al. (1989) discusses the use of effect sizes for interpreting the differences between groups in standard scores. An effect size of 0.2 or one-fifth of a standard deviation is small or mild; an effect size of 0.5 is moderate; and effect sizes of $\geq 0.8$ are large.

All univariate (frequencies), bivariate (cross tabs) and multivariate (logistic regression) analyses were conducted using weighted data in accordance with recommendations from the NWAHS (Grant, Howard et al. 2008). The conventional 5 per cent level was used to determine significance and, in the analysis of health and socio-economic characteristics, odds ratios were used to provide estimates.

### 3.7.5 Survey Development

The CATI questionnaire in the TFU Survey 2 was developed collaboratively with NOBLE researchers, P hD candidates and the Department of Health while the postal/online questionnaire was developed solely by the author. Appendix 2.10 identifies, in italics,
Sections of the CATI questionnaire that were developed either by the author or in collaboration with others. The development of the survey questions was guided by Study Objectives 2-5 (Chapter 1) and informed by the conceptual framework described in Section 3.5, the positive ageing models described in Section 3.6, and a wide range of literature on ageing well (Lang and Carstensen 1994; Schultz and Heckhausen 1996; Baltes and Lang 1997; Wagner 1997; Jorm et al. 1998; Vaillant 1998; McMurdo 2000; Mukamal and Vaillant 2001; WHO 2002; Peel et al. 2004; Marshall and Altpeter 2005; Ng, et al. 2005; Peel et al. 2005; Depp and Jeste 2006). A number of questions were adapted from surveys developed in other studies such as the Australian Longitudinal Study of Ageing (1992), the Healthy Retirement Project (nd), and the PLACE (Physical Activity in Localities and Community Environments) (2007) project and these are documented in Appendix 2.11. In addition, it was deemed important to extend my own understanding of the literature and the issues at stake by identifying what baby boomers themselves think is central to their ability to age well and to prepare effectively for later life. This was achieved by conducting two focus groups (2007) consisting of four participants in the first group and seven in the second group. Focus groups are an accepted format for refining the design of survey questionnaires and “… can contribute to the development and construction of new knowledges and understandings for both researcher and “researched”’ (Cameron 2002:89). Appendix 2.12 aligns the questions from the TFU Survey 2 with the various foci of the analyses undertaken in Chapters 5 to 9.

Sections D and E from the Postal/online questionnaire were not used in this thesis. Section D, Adaptive Coping Strategies, used the short form Selection, Optimization and Compensation (SOC) instrument developed by the Baltes (1990) who theorised a psychological model of successful ageing in which successful ageing is defined as the maximisation of desired outcomes and the minimisation of undesired outcomes. The aim of using this instrument was to obtain a measure of adaptive mastery and to identify the extent to which this was associated with outcomes in other domains. However, initial examination of these data suggested that the type of analysis required to produce meaningful results was beyond the scope of this thesis and would be best undertaken in a separate study. Section E, Care-Giving Commitments, collected data on those who provided part- or full-time care to an elderly relative or friend who lived in their own home. The care-giving role has an impact on both health and financial outcomes (Australian Institute of Health and Welfare 2009) and initially it was thought that
caregivers would be a useful subgroup to analyse. However, the number of full-time caregivers was quite small (n=40) and further disaggregation of this group would mean that there would be insufficient power for meaningful quantitative analysis. Nevertheless, many of the questions allowed for the collection of some qualitative material through the inclusion of an ‘other, please specify’ option and it is anticipated that this data will also provide the basis for a useful study at a later date.

3.7.6 Survey Administration

The TFU Survey 2 was administered by staff from the NWAHS team. Participants were initially approached through a letter (Appendix 2.13) in which they were invited to participate in the TFU Survey 2 through a 15 minute CATI interview and through filling in a postal or online questionnaire. The Survey was administered between July and November 2007 to all eligible NWAHS participants who remained in the study between the dates the Survey was undertaken (n=2996). Sections A to H and L to P of the CATI Questionnaire were administered to all NWAHS participants while sections I-K were only administered to baby boomers. Question H4 selected out baby boomer participants from the rest of the population. Question I1 was used to identify where participants placed themselves on the work/retirement continuum by asking them to choose one of the following options:

1. Not thinking about or planning for retirement
2. Already thinking about or planning for retirement
3. Already retired
4. Not going to retire.
5. Don’t know

The answers to this question were used to classify participants into one of three groups:

1. Group I: Thinking about or planning for retirement (Option 2)
2. Group J: Already retired (Option 3)
3. Group K: Not thinking about or planning for retirement or not intending to retire (Options 1, 4 or 5)

Each group was then asked questions from sections I, J, or K, based on retirement subgroup membership. Although the questions in each of these sections were virtually identical the wording was altered to fit the stage of retirement of each group and questions that were inappropriate to a group were excluded. For instance, those in Groups J and K were not asked...
about when they intended to retire as those in Group J had already retired and those in Group K may have had no intention of retiring. Questions for respondents in Groups I and J were phrased in terms of ‘retirement’, which was defined as voluntary withdrawal from the full-time paid workforce, while questions for those in Group K were phrased in terms of ‘later life’, which was defined as being after the respondent turns 65 years of age. The rationale for identifying where participants were on the work/retirement continuum was twofold. First, it made it possible to ask questions in a way that was appropriate to the participants’ stage in life and second it enabled planners to be differentiated from non-planners, and the retired from those who haven’t retired, thus making it possible for these groups to be included in the subgroup analyses. The number of participants in each group is as follows: Group I - n=577; Group J - n=113; Group K - n=360.

During the course of the CATI interview baby boomer respondents were invited to participate in the self administered Postal/online questionnaire. The method used for administering this questionnaire is set out below:

The online questionnaire was undertaken using online questionnaire design software Survey Monkey (http://www.surveymonkey.com). Participants whose email addresses were already known were given the option to undertake the survey online. A paper based questionnaire was sent out to participants and they were asked to return it in the reply paid envelope supplied. There was a follow up of those participants who did not respond to maximise the response rate of the survey. Paper based questionnaires were scanned and data entered. The online data was downloaded from the Survey Monkey software and combined with the other questionnaires that were data entered.

Grant et al. 2008:4

The NWAHS team pilot-tested the CATI questionnaire on the 8th and 9th of June 2007 on a sample (n=50) that was randomly selected from the eastern and southern suburbs. These areas were chosen in order to minimise accidental inclusion of a NWAHS participant (Grant et al. 2007). The Postal/online questionnaire was informally trialled with individuals born between 1946 and 1965. Twenty questionnaires were distributed and ten were returned. Questionnaires were also reviewed and commented on by peers within the university. Responses to the questionnaire were generally positive with some suggestions made with
regard to wording of questions and to the inclusion of additional options for some questions. A number of changes were made to the questionnaire as a result of these comments.

3.7.7 Ethics

Approval for research undertaken as part of the NWAHS was obtained from the North West Adelaide Health Service Ethics of Human Research Committee prior to the commencement of Stage 1. An application for Ethics approval for the TFU Survey 2 was also made to this Committee and the letter of approval is included in Appendix 2.14.

3.7.8 Focus Groups

The key aim of the focus groups was to test the extent to which the TFU Survey 2 questions captured baby boomers’ concerns and the ways in which they conceptualised preparation for later life. Focus group discussions were structured around the central concerns of the thesis under three main headings:

1. The current context for ageing
2. Ageing well – barriers and facilitators
3. Preparation for later life.

Discussions were supported by a three slide PowerPoint that provided a brief background about the key concepts, with this being included in Appendix 2.15.

The first focus group was run as a pilot and included four people known to the researcher; socio-demographic characteristics are set out in Table 3.10 below.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Person 1</th>
<th>Person 2</th>
<th>Person 3</th>
<th>Person 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>49</td>
<td>50</td>
<td>61</td>
<td>53</td>
</tr>
<tr>
<td>Gender</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td>Female</td>
</tr>
<tr>
<td>Occupation</td>
<td>Orchard worker/h/duties</td>
<td>IT officer</td>
<td>Urban Planner</td>
<td>Teacher (contract)</td>
</tr>
<tr>
<td>Marital Status</td>
<td>Married</td>
<td>Married</td>
<td>Widow</td>
<td>Widow</td>
</tr>
<tr>
<td>Family Structure</td>
<td>Couple only</td>
<td>Couple only</td>
<td>4 children, 3 g/children</td>
<td>3 children</td>
</tr>
<tr>
<td>Country of Birth</td>
<td>UK</td>
<td>UK</td>
<td>Australia</td>
<td>South Africa</td>
</tr>
</tbody>
</table>

Source: Author
The second focus group included seven people, most with a high socio-economic status. Participants in this group were sourced through a contact of the researcher who had offered to bring together a group of people who had a sound grasp of social policy issues. Table 3.11 sets out the socio-demographic characteristics of the second focus group.

### Table 3.11: Focus Group 2 – Socio-economic Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Person 1</th>
<th>Person 2</th>
<th>Person 3</th>
<th>Person 4</th>
<th>Person 5</th>
<th>Person 6</th>
<th>Person 7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>55</td>
<td>59</td>
<td>62</td>
<td>60</td>
<td>53</td>
<td>54</td>
<td>53</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td>Female</td>
<td>Male</td>
<td>Male</td>
<td>Female</td>
<td>Female</td>
<td>Female</td>
<td>Female</td>
</tr>
<tr>
<td><strong>Occupation</strong></td>
<td>Co. Director</td>
<td>Former Govt. CEO now Co. Director</td>
<td>Barrister (QC)</td>
<td>Executive in Govt.</td>
<td>Freelance journalist and ESL teacher</td>
<td>General Manager of small business</td>
<td>HR Consultant</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td>Married</td>
<td>Married</td>
<td>Married</td>
<td>Divorced</td>
<td>Divorced</td>
<td>Divorced</td>
<td>Divorced</td>
</tr>
<tr>
<td><strong>Family Structure</strong></td>
<td>2 adult children, 1 deceased</td>
<td>3 children</td>
<td>3 adult children, 2 g/children</td>
<td>5 adult children</td>
<td>2 adult children, 1 grandson</td>
<td>3 children</td>
<td>2 children living at home</td>
</tr>
<tr>
<td><strong>Country of Birth</strong></td>
<td>Australia</td>
<td>Australia</td>
<td>UK/India</td>
<td>Australia</td>
<td>Australia</td>
<td>Australia</td>
<td>Australia</td>
</tr>
</tbody>
</table>

Source: Author

The first focus group was run informally at the researcher’s home and participants were invited by telephone. These participants had a basic understanding of the research from conversations with the researcher and were not sent any formal background material. The second focus group was managed more formally. Email invitations were sent out to each participant with an attached information sheet providing background to the research. A draft email invitation and information sheet is included in Appendix 2.16. A PowerPoint presentation was used during the focus group to provide the initial background and an electronic whiteboard was used to record key points and to help keep track of the discussion. The discussion was facilitated by the researcher with assistance from a fellow PhD candidate, and comments written up on the electronic whiteboard were transferred to a USB stick and entered directly onto a laptop computer. Both of the focus group discussions were recorded and later transcribed and summarised.
3.8 Conclusion

Against the background of structural ageing (Chapter 1) and social change (Chapter 2) this chapter has explained the epistemological standpoint of the study as one which takes a historical perspective and considers the influence of both social structure and agency. Drawing on socio-cultural and demographic theories of social change (Chapter 3) it has argued that it is necessary to locate baby boomers historically (Chapter 4) in order to understand how factors associated with social change will influence both the context in which baby boomers will age and how they approach the ageing process. In addition, it has argued the need for a multi-level analysis in order to better understand variations within the cohort and the influence of social location on preparedness for later life (Chapters 5-9). Based on the conceptual framework developed by Denton et al. (2001), the chapter has explained how positioning later life within the context of reflexive modernity, and exploring later life preparedness through the domains of public protection, self-protection and self-insurance, facilitates a more balanced understanding of the factors that will influence how baby boomers experience later life.
Chapter 4: The Impact of Social Change on the Life Course – How Baby Boomers Differ from their Parents

... each cohort has a distinctive composition and character reflecting the circumstances of its unique origination and history.

Ryder 1997:69

4.1 Introduction

This chapter tests the extent to which theories of reflexive modernity and individualisation are borne out by empirical indicators of change by assessing the extent to which the traditional institutions of early modernity have been replaced with more diverse and flexible forms. It examines the impact of social change on the life course by using secondary data to compare the characteristics of a pre-war cohort born in 1927-1936 with those of a 10 year cohort of baby boomers born 1952-1961. In order to understand the differences between the cohorts it will review the social context in which each cohort was embedded as they grew up and reached maturity. In addition, it will consider how changes to the social context contributed to quite distinct characteristics in the baby boomer cohort. The discussion will be structured through a review of three major everyday institutions. Section two discusses changes to educational theory, content and delivery, while Section three examines changes to religious affiliation. The fourth section examines the changes to family structure and marriage, which were partly facilitated by transformations to education and religion.

4.2 Education

To establish the extent to which differences in the educational characteristics between baby boomers and the preceding generation support theories of individualisation and reflexive modernity it is important to not only show differences in the level of educational attainment but also to explore how developments in educational methodology and content affected the constitution of the individual within society and contributed to changes in everyday
institutions (Ryder 1997:71). Hence, the first part of this section examines the impact of changes to educational methodology, while the second part explains differences in educational attainment with reference to the different context in which each generation matured.

4.2.1 Transformations to Education in the 20th Century

The social role of education and the extent to which it can be an agent of social change is highly contested. The role of education has been variously viewed as a means of legitimating the existing social order; as a tool with which to provide the skilled labour necessary to achieve the economic and social goals of the nation; as a means of providing leadership for the nation; and as a process that is designed to help human beings fulfil their individual potential (Burns 2002). These views of education often exist simultaneously and the dominance of any one view, and the extent to which education is an innovative and/or conservative force, is influenced by the temporal, socio-political and economic context (Burns 2002). Hence, there is frequently a tension between educational agendas that focus on the individual and those which focus on the social. The 20th century is no exception and a selection of the literature on early 20th century education highlights this tension (Partridge 1968; Connell 1980; Spaul 1982; Marginson 1997). Early in the century, the official agenda for education was clearly aimed at legitimization of the existing social order, and was framed within the notions of social progress and social efficiency, however, this aim coexisted with more progressive thoughts on education that had a stronger focus on the individual (Connell 1980). Although it is true that this more humanistic conception of education could also be considered to have a social agenda (Burns 2002) the very content of its proposed curriculum held within it the potential to initiate challenges to the existing order. In the second half of the 20th century the social and individual agendas of education continued to coexist but the impact of education on individuals became more difficult to control, largely due to the shift in scale from education for an elite few to education for the masses (Marginson 1997). Whatever the purported aim of education it inevitably acted as an agent of change which imply be cause it now subjected individuals from diverse backgrounds to notions and ideas that had previously been largely limited to individuals with an interest in maintaining the status quo. In this way, education can be seen as a key initiator of the unintended consequences typical of reflexive modernity (Giddens 1990). Of course, the education available varied in quality and content and the
pupils varied in their degree of receptivity but the overall effect was to expand horizons for all and to create an environment in which traditional ways of doing things were open to question.

The two most significant changes to education in the 20th century were its democratisation, a shift from a belief that education should be for an elite minority to the notion of universal entitlement, and the transformation of its content and methods. Both of these changes were integral to the weakening of everyday institutions such as class, labour practices, gender roles, the family, and religious affiliation. At the beginning of the 20th century a liberal education beyond elementary level was primarily reserved for the elite classes with some members of the Establishment continuing to believe it unwise to educate an industrial proletariat (Angus et al. 2002:12). In the 19th century, and the early years of the 20th century, education was primarily concerned with ‘… handing on an established intellectual and moral tradition, with adjusting conservatively to one’s circumstances, and with preparing young people to earn a living’ (Connell 1980:6). However, over the course of the 20th century, as trends in educational theory, content and practice became more liberal, education also became an agent for change and increasingly contributed to a social climate in which it was acceptable to question, and depart from established traditions. A key task of the progressive or New Education that evolved was to provide a space in which critique and reconstruction could occur (Connell 1980:6).

Concerns about educating the proletariat were over-ridden by the needs of business and by the recognition that failure to adequately educate the masses would both retard economic and technological development and also be at odds with world-wide trends (Angus et al. 2002:12). Increased urbanisation and industrialisation meant that the world was becoming more complex and education was perceived as a means of making it ‘… more comprehensible, efficient, and securely democratic’ (Connell 1980:21). This led to the educational model of social efficiency, the main aims of which were to extend primary and vocational education through a curriculum that was relevant to society and the needs of the various social classes, and which was characterised by nationalism, civic values and moral development (Connell 1980). However, this concept was fundamentally conservative, reflecting a marriage of economic and political interests and aimed at increasing ‘… general prosperity without any political change of substance or loss of economic and political power to the existing holders of it.’ (Connell
Nevertheless, it did contribute to an extension of education beyond the primary school level. This trend occurred in tandem with the progressive movement in education, which was influenced by a range of European and US thinkers and exemplified in the works of philosophers such as John Dewey (Connell 1980; Angus et al. 2002). In contrast with the social efficiency paradigm, progressives emphasised individual development as well as social responsibility and regarded education as a means of extending to the masses the opportunities and privileges that had been the preserve of the elite. In this sense, education gradually became a solvent to one of the bases on which class was premised. To achieve their aims, progressive educational thinkers, such as Dewey, developed programmes ‘…that would encourage pupils to enquire into current social practices, to examine their own role in society, and to build up knowledge, habits, and attitudes that would make them into dedicated and responsible democrats’ (Connell 1980:9).

One of the key influences on education was the introduction of the scientific method with its emphasis on an empirical basis for knowledge. This method was also widely adopted by university sociology departments in the 1930s and gradually infiltrated schools, particularly in the second half of the 20th century (Connell 1980). The application of this method to socially oriented disciplines and its subsequent impact on educational curricula has contributed significantly to the reflexive nature of contemporary society. In the school room, the adoption of a scientific approach was exemplified by John Dewey’s project method which involved participation, observation and finding out for oneself. Developments in educational psychology were also important with key innovations including the psychological testing of ability and the development of theories of learning oriented around enquiry, meaning, and problem solving, together with an emphasis on pupil interest and motivation (Connell 1980). The psychological study of human relations also influenced educational methods with the ‘…dynamics of classroom behaviour, teacher-pupil relationships, and the social psychology of the schools’ becoming objects of study from the 1940s and 50s onwards (Connell 1980:13). Such psychological studies influenced the pupil-teacher relationship diminishing its authoritarian nature and contributing to a more collaborative paradigm.

The application of progressive educational theories and the provision of universal education beyond the primary level played a significant role in weakening authoritarian power structures.
in schools, workplaces and the home and replaced a social mindset that automatically accepted traditional practices with one that questioned their usefulness and validity. In principle, it also made it possible for any motivated individual to attain influential social and occupational roles where previously this capacity was largely limited to those of a certain class (Marginson 1997). Although social origin and socio-economic status continues to exert an influence on the extent to which aspiration arises, and potential is realised, the combination of expanded education provision within the context of the welfare state as considerably reduced the impact of these factors. Progressive educational theories were common to all developed nations but were taken up unevenly and at different times, with Australia lagging behind countries such as the US (Spaull 1982). However, while many of the theories were not practically applied in the classroom until the second half of the century their key period of development was firmly established in the first half of the century (Connell 1980; Angus et al. 2002).

The transformation of the purpose and methods of education both contributed to, and reflected, broader changes relating to the individual and their place in society. The concept of the self-regulating citizen that emerged in the 1960s and 1970s occurred in tandem with a more diverse educational curricula that included themes such as lifestyle, individual choice and economic accumulation (Marginson 1997:16). Although the generation of common values and the capacity to contribute continues to be an important role of education, there is now a more global emphasis and the formation of citizenship within a liberal education has been expanded to meet the needs of a more complex and democratic society resulting in a ‘...tension between citizenship as a normalising code of behaviour tending to repress difference, and citizenship as tolerance and the free expression of difference [which] is never quite resolved’ (Marginson 1997:6). Examples of this can be found in the proliferation of groups that challenge the status quo, from the student protests of the late 1960s to contemporary human rights and environmental movements (McDonald 1995; Marginson 1997). Equally, the increasingly liberal and individual developmental aspect of education tends to create greater numbers of free thinking individuals. The interaction of such individuals with a rapidly changing social and economic context increases social reflexivity overall, hence education can be seen as contributing not only to a more rounded individual but also to individualisation.
Education was seen as a prime medium for achieving greater equality of opportunity (Connell 1980; Marginson, 1997). This was not only because it provided entrée into more diverse and skilled occupations but also because a liberal and person centred education contributed to a more holistic personal development. The wider opportunities provided by education, together with its emphasis on the individual, and subtle changes in the student–teacher relationship, can certainly be deemed to have contributed to the breaking down of establishment values and a weakening of the paternalism and authoritarianism intrinsic to these values. In addition, the expansion of educational and occupational opportunities for women, as well as the emphasis on self-development, played a significant part in transforming gender roles and relations between the sexes (McDonald 1995).

### 4.2.2 Cohort Comparison of Educational Attainment and Context

Changes in education are important not only because of their significance in transforming the nature of contemporary society, but also because higher levels of education are associated with higher incomes, better health (Rowe and Kahn 1997) and more opportunities in life (Marginson 1997), with access to knowledge and information being integral to choice and decision making (Beck 1994; Giddens 1994). The marked difference in educational levels of the two cohorts is highlighted in Table 4.1 and Table 4.2.

#### Table 4.1: Highest Year of School Completed

<table>
<thead>
<tr>
<th>Highest Year of School Completed</th>
<th>Aged 45-54 in1981</th>
<th>Aged 45-54 in 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Age 16 (Yr 10 or below)</td>
<td>83.5</td>
<td>87.0</td>
</tr>
<tr>
<td>Age 17 (Yr 11)</td>
<td>8.7</td>
<td>8.5</td>
</tr>
<tr>
<td>Age 18 or older (Yr 12)</td>
<td>7.9</td>
<td>4.6</td>
</tr>
<tr>
<td>Total</td>
<td>712 800</td>
<td>693 900</td>
</tr>
</tbody>
</table>

Source: ABS, 1981b; 2006b

Table 4.1 shows that those aged 45-54 in 1981 had considerably fewer years of schooling than baby boomers of the same age in 2006, reflecting differences in the educational context prevailing during the formative years of each cohort. This difference becomes even more marked if the Year 10 or below category in the 1981 cohort is further broken down, with 45.3 per cent of those in this category leaving school at age 14 or less. For those born in 1931, roughly at the mid-point of the 1927-1936 cohort, the years of primary education occurred
prior to, and during, World War II, while their secondary education began just a year before the war ended.

Primary education for this cohort aimed to provide basic literacy skills and to inculcate patriotic values and a sense of duty to society (Spaull 1982). It consisted of a uniform standardised syllabus and was unrelated to individual differences of ability or interest (Spaull 1982). Although the emergence of the Australian Council of Educational Reform (ACER) in the 1930s and the subsequent convening of the New Education Fellowship (NEF) has been cited as introducing the golden decade of the modern education reform movement (1937-1947) practical implementation of the Reform movement’s objectives really only began post World War II (Spaull 1982; Angus et al. 2002). In addition, the vicissitudes of the Depression followed by a Second World War meant that education in Australia was generally in a parlous condition and lagged behind that of the US and Britain (Spaull 1982; Angus et al. 2002). Schooling was considerably disrupted by war, particularly in 1942 with Japanese incursions into coastal areas of Australia (Spaull 1982). Disruptions, while minimal compared with Europe, nevertheless included the evacuation of children, temporary closures of some schools, school air raid shelters and drills, military requisitioning of some school premises, scarcity of resources and equipment and significant war-time shortages of teachers (Spaull 1982). Teacher shortages threatened the provision of primary education in rural areas, and in some states resulted in the raising of entrance ages, both of which caused further social disruption related to women’s participation in war-time industries and the need for older children to stay home to look after younger children (Spaull 1982).

The adolescent years for those at the mid-point of this cohort corresponded with the end of the war and hence largely missed out on the benefits delivered through the considerable expansion and reform of secondary and tertiary education that occurred in the ensuing years. Prior to, and during, the Second World War the senior secondary sector was dominated by independent schools and selective government schools designed for prospective university entrants while less well resourced state schools dominated primary and junior secondary education (Marginson 1997). Choices for most people were limited, as the state funded public high schools that offered a full liberal education were developed along elite lines similar to that of private schools and the British public school system; hence, they were more resource
intensive and limited in number (Spaull 1982; Angus et al. 2002). Consequently, the demand for places outstripped supply and necessitated the institution of entrance examinations based on merit (Angus et al. 2002). The bulk of the population was channelled into other forms of post-primary or junior secondary education related to technical, commercial and domestic science occupations. In the absence of further options, most left school at the minimum school leaving age of 14 (Angus et al. 2002) and, as shown in Table 4.2, very few of this cohort progressed to tertiary level education.

### Table 4.2: Non-School Qualification

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Aged 45-54 in1981</th>
<th>Aged 45-54 in 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
</tr>
<tr>
<td>Post Grad/Higher Degree</td>
<td>0.8</td>
<td>0.1</td>
</tr>
<tr>
<td>Grad Diploma</td>
<td>0.9</td>
<td>0.4</td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>3.0</td>
<td>1.3</td>
</tr>
<tr>
<td>Diploma</td>
<td>4.0</td>
<td>3.8</td>
</tr>
<tr>
<td>Certificate level</td>
<td>25.2</td>
<td>9.4</td>
</tr>
<tr>
<td>Other(^1)</td>
<td>66.1</td>
<td>84.9</td>
</tr>
<tr>
<td>Total</td>
<td>749 100</td>
<td>719 200</td>
</tr>
</tbody>
</table>

\(^1\)Includes: Inadequately described, not stated, no qualifications or n/a, non-certificate, still at school

Source: ABS 1981b; 2006b

The educational context for baby boomers born between 1952 and 1961 was substantially different from that of its predecessors and contributed to much higher percentages attaining a university qualification. Those born in 1956, roughly at the mid-point of this cohort, entered primary school around 1961 and secondary school around 1969. The post-war boom, together with principles of Keynesian social investment, had led to an expansion of the welfare state with much greater funding from government in areas such as education, with Marginson commenting that:

> In the three decades after the war there was a spectacular expansion in the size and social reach of the education systems, so that universal secondary education, and mass systems of upper secondary education and tertiary education, became central factors in Australian life.

Marginson 1997:20

Changes at primary school level were not as marked as those in the secondary and tertiary sectors with primary schools continuing to be staffed by generalist teachers in age-graded classrooms (Angus et al. 2002). However, ba by boomers entering primary schools in the
1960s had greater exposure than their predecessors to the more progressive educational ideas that had been developed over the first half of the twentieth century. Although this did not occur at a systemic level there were attempts by a number of schools and teachers throughout the country to implement a more child-centred approach and to group children according to performance on standardised ability tests with a view to encouraging them to learn at their own pace (Angus et al. 2002). More innovations occurred in the 1970s with the systemic introduction of open plan classrooms and an openness to the more radical and alternative ideas of Illich, Postman and Holt (Angus et al. 2002).

The most significant changes, and the real democratisation of education, occurred through the opening up of the secondary and tertiary sectors. This expansion was due to a variety of factors including demographic pressures, economic growth, educational technologies, popular aspirations, policy discourses and the ‘…growth and diversification of social positions for educated labour’ (Marginson 1997:32). Between 1945 and 1975 there was a significant expansion of the state secondary sector with the number of state high schools increasing from 255 to 810 (Angus et al. 2002). High school entrance examinations were abolished and the school leaving age increased to 15 years of age. Angus et al. (2002) point to a wide range of government enquiries into education aimed at addressing the need to construct a high school system that adequately addressed both vocational and academic requirements. Education was increasingly financed by the government with total education spending from private sources decreasing from 20.3 per cent in 1948-1949, to 14 per cent in the late sixties and 5.6 per cent by 1975-1976 (Marginson 1997). As shown in Table 4.1 above, baby boomers in the 2006 cohort benefited from this expansion with 43.4 per cent completing high school compared to 6.2 per cent of their predecessors.

The expansion of the tertiary sector was perhaps even more significant. The war-time involvement of universities in providing research and consultative services to the Federal Government left no doubt as to the important role universities would play in a future that would be characterised by technological and social advances (Connell 1980; Lindsay 1981). As a result, government funding of universities increased after the war with a focus on capital investment, recurrent costs and payment of student fees, with the latter largely being benefiting returned service men and women through the Commonwealth Repatriation Scheme, later
called the Reconstruction Training Scheme (Lindsay 1981). As a result, university enrolments increased from 14,000 in 1939 to 26,000 in 1946 and 32,000 in 1948 while the Education Act of 1945 and the Constitutional Amendment of 1946 ‘… authorised grants to students in peacetime [and] established permanently the Commonwealth government’s role in higher education’ (Lindsay, 1981:169).

The number of universities increased from seven in 1964 to 17 universities and 77 advanced education institutions by 1973 (Marginson 1997). The Whitlam Government contributed significantly to the expansion of higher education and the 1974 proclamation of free higher education as a right meant that many baby boomers had free access to university and were financially supported through the tertiary assistance scheme (Marginson 1997). The growing equality of access to higher education is evident in the shift from private school entrants to a greater number of government school entrants. For instance, in 1939, only 24.3 per cent of University of Melbourne graduate students were from government schools but by 1965 this had reached 52 per cent (Marginson 1997). Hence, baby boomers grew up during a period of massive growth in the education system and had considerably more opportunity than their predecessors. However, as Table 4.3 shows, in subsequent cohorts there are even higher percentages with university qualifications, indicating that the formative years of baby boomers occurred at a transitional phase of the educational revolution. Equally significant, is the widening gender gap in tertiary qualifications. In the 1981 cohort, higher proportions of males had a tertiary education, however, this trend has been reversed, with baby boomer females, and subsequent generations of females, having progressively higher proportions with a tertiary education than males.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M %</td>
<td>F %</td>
<td>P %</td>
</tr>
<tr>
<td>Higher Deg</td>
<td>8.2</td>
<td>7.4</td>
<td>7.8</td>
</tr>
<tr>
<td>Grad Dip</td>
<td>3.5</td>
<td>7.1</td>
<td>5.1</td>
</tr>
<tr>
<td>Bachelor</td>
<td>23.0</td>
<td>32.3</td>
<td>27.1</td>
</tr>
<tr>
<td>Total Tert</td>
<td>34.7</td>
<td>46.8</td>
<td>40.1</td>
</tr>
<tr>
<td>Non Tert</td>
<td>65.3</td>
<td>53.2</td>
<td>59.9</td>
</tr>
<tr>
<td>Total</td>
<td>720049</td>
<td>571586</td>
<td>1291635</td>
</tr>
</tbody>
</table>

Source: ABS, 2006a
4.2.3 Religious Affiliation

Despite the increasing secularisation brought about by the Enlightenment, the prescriptive framework of the Church continued to exert an important influence under conditions of early modernity, particularly in terms of values and social mores. This was reflected in the religious underpinnings of key institutions such as marriage and an age profile of church attendance which reflected that of the wider community (Powell and Jacka 2008). Although proscribed behaviours such as pre-marital sex clearly occurred, they were not publicly acceptable. Such behaviours required discretion and, where pregnancy ensued, the willingness to legitimise such liaisons or risk pariah status. However, from the 1960s the influence of the Church declined, with this being reflected in the secularisation of marriage, increases in cohabitation and serial monogamy, high divorce rates (McDonald 1984; Carmichael 1998), falling church attendance (Powell and Jacka 2008), and a reduction in the percentage of people affiliated with a Christian denomination (Carmichael 1998). Powell and Jacka (2008:6) note that when young baby boomers left the Church in the 1960s and 1970s it was assumed this was related to life stage and that they would soon return with ‘children in tow’. However, there is strong evidence that this has not occurred, with data on religious affiliation and church attendance reflecting continuing and fundamental changes in attitudes to established religion.

Figure 4.1 shows that from the mid 1960s there was a distinct increase in those stating ‘no religion’, with this trend generally continuing until 2006. Also evident is a parallel decrease in affiliation with Christian denominations. Although not highly visible in Figure 4.1, the percentage of those affiliated with other religions also rose, from .8 per cent in 1971 to 6.2 per cent in 2006 (ABS, 2003). The sudden rise in ‘not stated’ in 1933 is due to the fact that the religious affiliation question in the Census was made voluntary at this time. It is significant that substantial decreases in Christian religious affiliation are coincidental with the formative years of baby boomers, identifying this cohort as being at the leading edge of change. Figure 4.2 suggests that reduced affiliation with Christianity has continued to be a feature of baby boomers’ lives with those aged 45-54 in 2006 being much less likely to be affiliated with Christianity than their predecessors at the same age.
**Figure 4.1: Religious Affiliation of the Australian Population 1901 to 2006**

Source: ABS 2003;2006a

**Figure 4.2: Religious Affiliation for those aged 45-54 in 1981 and 2006**

Source: ABS 2006b;1981a

Figure 4.3 and Figure 4.4 highlight the link between higher levels of education and the increased likelihood of stating no religion. Of particular interest are the marked gender differences in religious affiliation in the 1927-1936 cohort. Females with higher degrees and graduate diplomas in this cohort were much more likely to identify themselves as having no religion (44 per cent and 26.7 per cent) than were males with these qualifications (24 per cent and 19.3 per cent) suggesting that women in these groups were much less conservative than their male counterparts. By contrast, there is a much greater gender convergence demonstrated in the religious affiliation of the 1952-1961 cohort, with both males and females being more likely than the previous cohort to identify as having no religion. However, for
both cohorts higher qualification levels correspond with lower levels of Christian religious affiliation.

**Figure 4.3: Religious Affiliation by Education Level and Gender - Age 45-54 for the 1927-1936 Cohort**

Source: ABS, 1981b

**Figure 4.4: Religious Affiliation by Education Level and Gender - Age 45-54 for the 1952-1961 Cohort**

Source: ABS, 2006b
Table 4.4 presents a breakdown of those not affiliated with Christianity and shows that for both cohorts non-Christian affiliation is mainly due to an increased secular orientation rather than adherence to a different religion, with the percentage of baby boomers reporting no religion being more than double that of their predecessors at the same age. However, baby boomers were also more strongly represented in non-Christian religions with 5.4 percent in this group compared to .8 percent of their predecessors.

Table 4.4: Religious Affiliation for 1927-1936 and 1952-1961 Cohorts

<table>
<thead>
<tr>
<th>Religious Affiliation</th>
<th>Aged 45-54 in 1981</th>
<th>Aged 45-54 in 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buddhism</td>
<td>0.12</td>
<td>2.58</td>
</tr>
<tr>
<td>Islam</td>
<td>0.30</td>
<td>1.13</td>
</tr>
<tr>
<td>Other non-Christian religions</td>
<td>0.41</td>
<td>1.73</td>
</tr>
<tr>
<td>Total of non-Christian religions</td>
<td>0.83</td>
<td>5.44</td>
</tr>
<tr>
<td>No Religion</td>
<td>7.99</td>
<td>17.46</td>
</tr>
<tr>
<td>Christian Religion</td>
<td>79.42</td>
<td>65.58</td>
</tr>
<tr>
<td>Not Stated/inadequately described</td>
<td>11.76</td>
<td>11.51</td>
</tr>
<tr>
<td>Total</td>
<td>1,468,300</td>
<td>2,706,500</td>
</tr>
</tbody>
</table>

Source: ABS 2006b; 1981a

Bourna (2002) points to the global movement of religious ideas and practices as one of the factors changing Australia’s religious life through the adoption of non-Christian teachings brought into Australia. This is to some extent supported by the data in Table 4.5 although it appears to be a relatively mild influence with only 3 percent more Australian born baby boomers affiliated with non-Christian religions compared with the Australian born in the 1927-1936 cohort. Most of those aged 45-54 in 2006 who were affiliated with non-Christian religions continued to be those born overseas (82.6 percent) hence the increase is better explained by changes to immigration policy, with the emphasis shifting from European countries to those in the Asia-Pacific region from the 1970s onwards (ABS, 2001a:10). This meant there was an influx of migrants who espoused religions other than Christianity. However, it is also interesting to note that 36.3 percent of the overseas born in the 1927-1936 cohort compared to 29.7 percent of those born overseas in the 1952-1961 cohort identified as having no religion, suggesting the more secular or intention of migrants from European countries compared to those from Asian countries.
Table 4.5: Religious Affiliation by Birthplace

<table>
<thead>
<tr>
<th>Religious Affiliation</th>
<th>45-54 year olds in 1981</th>
<th>45-54 year olds in 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Aust Born %</td>
<td>O/seas Born %</td>
</tr>
<tr>
<td>Christian Religion</td>
<td>69.4</td>
<td>30.6</td>
</tr>
<tr>
<td>Non Christian Religion</td>
<td>14.4</td>
<td>85.6</td>
</tr>
<tr>
<td>No Religion</td>
<td>63.7</td>
<td>36.3</td>
</tr>
<tr>
<td>Not Stated</td>
<td>73.5</td>
<td>26.5</td>
</tr>
<tr>
<td>Rel belief nfd/inad desc</td>
<td>84.6</td>
<td>15.4</td>
</tr>
</tbody>
</table>

1Not Stated not available in this 2006 CSF variable
Source: ABS 1981b; 2006b

In general, the percentage of baby boomers in broad categories such as no religion, non-Christian religions and Christian religions, is more closely aligned to that of subsequent generations than that of their predecessors, marking them as a transitional generation and supporting the notion of a reduced role for religion in this cohort. Another measure that indicates a departure from the traditions of early modernity and a break with the Christian Church is a less traditional and more personalised approach to the marriage ceremony. This is reflected in the shift from religious to civil marriage celebrants shown in

Figure 4.5. As with the shift in religious affiliation noted earlier, there is a distinct increase in the use of civil celebrants from around 1970, with civil celebrants becoming the preferred choice from 1999 onwards.

Figure 4.5: Choice of Marriage Celebrant 1905-2004

Source: ABS 2008
Although a high percentage of the Australian population still retains a nominal affiliation with the Christian religion there has been a massive exit from active church involvement over the last 35-40 years (Powell and Jacka 2008) with weekly church attendance for 2001 being estimated at around 8.8 per cent of the whole population (Bellamy and Castle 2004). Frequent attendance estimates, calculated on at least monthly or more attendance, are somewhat higher at around 18 per cent (Bellamy and Castle 2004). Nevertheless, this still contrasts starkly with Mol’s 1966 survey (1971) in which 27 per cent attended church nearly always (3 times or more per month) and 39 per cent attended at least once a month. Church attenders are predominantly older people with 23 per cent of those attending being in the 70+ group, which forms around 12 per cent of the total population, compared to only 15 per cent of attenders in the 30 and below group that forms around 25 per cent of the total population (Powell and Jacka 2008). There is also little evidence that baby boomers are returning to the Church as they age, with the gap between the age profile of church attenders and the age profile of the wider community actually increasing between 2001 and 2006 (Powell and Jacka 2008:5-6).

In addition to the significant decrease in Christian religious affiliation there is also evidence that for many, the Church has become what Giddens (2002) calls a ‘shell institution’, the form is still there but emptied of meaning and relevance. However, this is primarily the case for traditional, conservative denominations such as Anglicanism and Catholicism in which nominal membership is high but attendance low (Table 4.6). Less conventional denominations, such as Pentecostalism, which frequently place greater emphasis on personal experience, have much higher attendance rates. The gap between nominal affiliation and active attendance that is present for the largest denominations suggests that secularisation is more widespread than the percentages stating no religion would suggest. Equally, the higher percentage of attenders in less conservative denominations could itself be indicative of individualisation processes, with active involvement being linked to personal meaning rather than to traditional patterns of social behaviour. Indeed, Mol’s (1969) comments on the state of Christianity in Australia in 1969 suggest a structural lag between the orientation of mainstream Churches and the needs of individuals. He noted that problems arose for clergy who wanted the Church to be ‘…more central to the meaning that individuals attach to existence’ (Mol 1969:3). Mol encapsulated the Church’s dilemma as that of an institution
whose form had not changed sufficiently to match the modern world in which it found itself and noted that:

The great difference between the functions of the Christian religion now and in pre-industrial times is its incapacity to penetrate any longer into all the facets of living, integrating existence in the process. Society has become so complex that religion has become one item in this complexity rather than the unifying element for it.

Mol 1969:3

Mol (1969) questioned the extent to which secularisation was a major source of the issues facing the Church and noted that the questioning of the Church’s structures did not equate to a disappearance of its congregation’s needs and expectations but instead reflected the fact that these were no longer underpinned by a common denominator. The decreased sense of community meant that the Church now had to meet the varied needs of diverse individuals rather than the needs of an integrated community; a one size fits all approach would no longer be effective. Hence, in one sense, Mol (1969) appears to be pointing to increased social differentiation as the central issue for the relevance of the Church rather than secularisation per se. However, in 1971, around the time Mol was writing, only 7 per cent of the population put down no religion on their census form (ABS, 2004:181) and that has now increased to 18.7 per cent (ABS, 2006a).

Table 4.6: Percentage of those who Identified as Christian who Attended Church Weekly

| Source: Bellamy and Castle, 2004:10 |
The effect of individualisation processes is also reflected in the formation of organisations such as National Church Life Survey Research (NCLS), a ‘cooperative research venture designed to resource congregations for mission’ (NCLS, 2008). A key purpose of NCLS Research is to discover what individuals want from the Church and what it will take to bring them back into the fold (NCLS 2008). The traditional missionary orientation of the Church appears to have given way to a marketing orientation in which potential future members are to some extent conceptualised as consumers. This does not negate the importance accorded to the Church’s fundamental message, but it does imply a belief that if membership is to be sustained the message needs to be tailored to individual needs. The role of the individual as supplicant, and the Church as authority, has to some extent been altered, with the Church now needing individuals as much as individuals previously needed the Church. As Bourna (2006:67) notes, one of the key questions of today is not ‘Will our children have faith’ but ‘Will our faith have children’? Although the issues surrounding the contemporary relevance of the Church are complex, it remains clear that as an institution it is in a process of transformation and its traditional form is more relevant to preceding generations than to either the baby boomers or their successors.

4.3 Marital Status and Family Structure

The processes of individualisation and de-traditionalisation typical of reflexive modernity are supported by empirical observations of changes associated with the Second Demographic Transition, a construct that has been developed to explain changes in:

- the contraceptive behaviour practised
- the level and pattern of fertility
- the timing, frequency, stability and type of union
- the resulting type of family pattern.

van de Kaa 1997:4

Although the concept of the Second Demographic Transition was developed in relation to Europe, an extensive body of literature indicates that equivalent changes have also occurred in
Widespread social acceptance of the use of the contraceptive pill, abortion, and sterilisation, has put fertility control within the ambit of the individual and the overall fertility rate has declined significantly (Hugo and Wood 1983; McDonald 1995; van de Kaa 1997). The institution of marriage has become less stable and is no longer the only socially acceptable form within which sexual relations can occur, with cohabitation, serial monogamy and living apart together (LATS) being increasingly common (Glezer 1993; McDonald 1995; Carmichael and Whittaker 2007). Aver age age at first marriage is higher than it has been throughout the 20th century; there is greater variation in the timing of first marriages (Hugo 1983; Weston and Qu 2006); and the percentage remaining unmarried has increased (McDonald 1984; Brown 2002-03).

Similarly, beginning in the mid-1960s, there has been a reduction in the number of conventional nuclear families and an increase in other family and household types including single parent families, couple families without children in the household (Hugo 1983; McDonald 1984; Wise 2003), blended families (Wise 2003), lone person households and multiple person households constituted of unrelated individuals (Hugo 1983). In addition, while not included in the family type variable collected by the ABS Census of Population and Housing, the last few decades have seen the emergence of same sex couples with children, with evidence to suggest that around 20 per cent of ‘… Australian lesbians, gay men and bisexuals have children (VGLRL 2000; LOTL 1999)’ (Wise 2003:3). Based on his analysis of trends in family size and household formation, which used data from the 1981 and several preceding Censuses, Hugo makes the following comment:

The ways in which individuals in Australia are grouping themselves into living arrangement units have become increasingly more complex during the postwar period and there is a constant state of change in these patterns.

Hugo 1983:37

Although a historical perspective tells us that the diversity of family types, later age at first marriage and high rates of the never married are not unique to the second half of this century,
the causes of such demographic patterns today are different to those of the past (McDonald 1984). The blended families and female-headed one-parent families of the 19\textsuperscript{th} century were more likely to be due to high levels of mortality than to divorce (McDonald 1984), while marriage postponement was one form of birth control in a climate where the costs of children had started to outweigh their utility (Caldwell 1980; Lesthaege 1980). Contemporary manifestations of these patterns are primarily related to value shifts around marriage, divorce and children (McDonald 1984; Wolcott and Hughes 1999) and reflect the individualisation processes (Carmichael and Whittaker 2007) that emerged from the growth of individual liberalism and the welfare state. These processes were aided by the democratisation of education, increased secularisation, economic growth and technological innovation.

4.3.1 The 1927-1936 Cohort

The 1950s and 1960s, located in between these periods of diversity, were an island of relative homogeneity and stability in which most women married and had children (McDonald 1984) and divorce was comparatively rare (McDonald 1995). The 1927-1936 cohort was part of a larger cohort, born 1925-1945, whose members entered the marriage market at this time and through their behaviour gave rise to the stereotypical image of the nuclear family (McDonald 1984). Age at first marriage was extremely low and the total fertility rate increased significantly after World War II, temporarily reversing the trend to lower fertility that had been occurring since the late 19\textsuperscript{th} century (Hugo and Wood 1983). The lifetime average number of live births per married woman for this cohort was around 3.2 (McDonald 1995).

As noted in Chapter 3, young people during the war had become accustomed to more freedom and autonomy and the assertion of this desire for independence was manifested through ‘…sexual activity, pre-marital conception and early marriage’ (McDonald 1984:4), with marriage being the most culturally acceptable means of achieving independence from the parental home. Earlier age at first marriage is also likely to have been affected by post-war changes to the composition of immigration to Australia. The larger numbers of migrants arriving from Eastern and Southern Europe were mostly single men and they brought with them a tradition of earlier marriage (McDonald 1995). This contributed to a shortage of single women and resulted in exceptionally high rates of marriage for women, with ‘… less than 5 per cent of
women in this generation never marrying compared to around 9 per cent of men’ (McDonald 1995:34).

Separation from the family home through marriage was facilitated by the spirit of optimism engendered by the post-war economic boom (Alexander and Torney-Parlicki 2001) that brought with it a wider range of occupations (Marginson 1997), near full employment (Bourassa et al. 1995; Alexander and Torney-Parlicki 2001), and a sense of security. In addition, the long boom facilitated a more substantial implementation of the values of liberal individualism than was possible during the first half of the century (Marginson 1997; Herscovitch and Stanton 2008). Thus, due to the significant extension of the education, health and social security systems, as well as increased access to home ownership through greater government intervention in the provision of housing (Bourassa et al. 1995), there was more confidence that individual aspirations could be met. Overall, the environment in which this cohort married and had children was characterised by stability and optimism and hence was conducive to marriage and the formation of family units.

The family structure and marriage patterns of the 1927-1936 cohort were grounded in a familialistic culture that privileged the welfare of children and the family over the fulfilment of the individual or couple. The establishment of a culture of familism during the early twentieth century occurred in tandem with the continued development of values of individual liberalism that had emerged in the 19th century, such as autonomy, social acceptance, intimacy and aspiration (Connell 1980; McDonald 1995). Increased autonomy for families was largely expressed through legislation relating to compulsory education, child maintenance, child labour, more liberal divorce arrangements, women’s suffrage and the right of married women to own property (McDonald 1995). However, the framework of the nuclear family that was the basis for 20th century familism, was founded on a gender role structure that limited women’s capacity to realise values such as autonomy and aspiration at a level of individual achievement separate from the family unit (Parsons 1942). This differentiation of gender roles grew out of the increased specialisation of social units that was required by modern economies (McDonald 1995). From a structural functionalist perspective, the nuclear family, with the female as homemaker and the male as breadwinner, was the most appropriate structure to provide the skilled and mobile labour necessary to modern industrial methods (McDonald 1995).
1995). Hence, the female role shifted from that of co-producer of income (Magarey 1980) to unpaid but ideologically esteemed domestic manager (Parsons 1942; Friedan 1963; Alexander and Torney-Parlicki 2001). The male occupation became the prime factor in determining the status of the family in the social structure with the female occupying a supportive role that largely excluded them from benefiting, except by proxy, from the new emphasis on individual achievement (Parsons 1942).

Validation of the nuclear family structure, and its social desirability, was encouraged by social policy and expert opinion, including the creation of a basic wage in 1906 intended to provide adequate support for a wife and three children (McDonald 1995); the emergence of scientific mothering in the mid-1920s, with the subsequent establishment of new baby clinics and maternity hospitals (Alexander and Torney-Parlicki 2001); and the popularisation and use of Freudian psychoanalytic theory in the 1940s and 1950s to affirm gender differences and to inform ideas about relationships, marriage and the family (Friedan 1963; McDonald 1995). For women, the primary aspiration was to make a good marriage with subsequent aspirations focused through the male and the children, and female autonomy being largely confined to decisions about home-making and child raising (Parsons 1942). Technically, women could choose a career but higher educational opportunities were sparse and generally confined to the elite or the exceptionally talented, with a professional career generally being construed as antithetic to marriage (Friedan 1963). This was so, not only because choosing a career over marriage deviated from the norm, but also because some professions discriminated against married women (McDonald 1974). A breakdown by occupation of the percentage of ever married women aged 25-29 in the 1961 Census (born 1932-1936) shows that the ‘… proportion of women married was inversely related to the occupational level …’ with much lower percentages of married women in professional occupations such as nursing and teaching and much higher percentages working as barmaids and hairdressers (McDonald 1974:234). Data from the 1966 Census also supports the notion of a conflict between marriage and highly educated women, with McDonald (1974:214) noting that the percentage of tertiary qualified women who were married at age 28-29 in the 1966 Census was substantially lower than for those with a more basic educational level.
Indeed, Parsons, somewhat prophetically, commented in 1942 that the generalisation of a pattern in which women sought careers to the same extent as men ‘… would only be possible with profound alterations in the structure of the family’ (Parsons 1942:610). Discrimination against married women was institutionalised through a ban on the employment of married women in the Commonwealth Public Service, which remained in place until 1966 (McDonald 1995). In addition, women who had worked during the war were expected to give up their places to returning service men (McDonald 1995) with the ban on female taxi drivers instituted in 1946 being one example (Australian Broadcasting Commission (ABC) 2002). This is not to say that married women did not work at all, for labour participation rates for married women of prime working age rose considerably in the 1950s (McDonald 1995; Alexander and Torney-Parlicki 2001), however, women’s work was largely undertaken out of necessity or to support family aspirations rather than being a vehicle for personal achievement and autonomy.

### 4.3.2 The 1952-1961 Cohort

In contrast to those born between 1927 and 1936, members of this cohort spent their early years in an economically stable and secure environment characterised by the expansion of educational and employment opportunities (Marginson 1997). Ironically, the widespread exposure to a liberal critical education had unintended consequences. By democratising the space in which critique occurred it contributed to a more malleable value system because the foundations of religion and tradition on which values were based became open to question, not just by an elite, but by the wider population. Hence the growing individualism of post-war Australia, while marked by comparative material security, was also informed by a degree of uncertainty about the boundaries for action in a world where individual fulfilment was given priority. However, this shift in values occurred unevenly and was influenced by factors such as religious belief, country of origin, level of education, socio-economic status and personal inclination and circumstances (McDonald 1995). For instance, van de Kaa (1997:10-11) cites a study by de Feitjer (1991) that identifies young, highly educated urban women as being at the forefront of change. The shift in values also occurred gradually, with earlier born baby boomers tending to be more conservative than those born towards the end of the baby boom (Glezer 1993). Not surprisingly, issues of individual fulfilment, of individual rights versus
obligations to others, have come to the fore in the arena of relationships, marriage and the family.

The contextual pressures on members of the 1952-1961 cohort, who entered adulthood during the 1970s and early 1980s, were markedly different from those experienced by the 1927-1936 cohort. Throughout their lives, baby boomers have been exposed to a less parochial, and more global, view of life, not only because they had greater access to education, but also due to the rapid diffusion of cultural movements and ideas through advanced communication technologies such as television during childhood; comparatively cheap international travel during adolescence and early adulthood; and personal computers and the Internet during early and mid-adulthood (Olsberg and Winter 2005; Hamilton and Hamilton 2006). The launch of the first commercial satellite in 1969 contributed to an increase in the pace and scope of cultural diffusion (Giddens 2002). For instance, in the US it took 40 years for radio to gain an audience of 50 million but uptake of subsequent technologies was much faster and it took only 15 years for personal computer use to reach this level and only four years for the Internet (Giddens 2002). Baby boomers’ increased exposure to influences outside of the family unit reduced the degree to which parents had oversight of their children’s personal development just as greater access to the car had limited parental oversight of the courting practices of the 1927-1936 cohort (Carmichael 1998). At the same time, the benefits of traditional marriage were beginning to appear somewhat tarnished in the light of the Feminist Movement, with its emphasis on the right of women to individual achievement outside of the confines of the home and family (McDonald 1995). The objectives of the Feminist movement were facilitated by the advent of the contraceptive pill and the intra-uterine device (IUD) in the early 1960s (Carmichael 1998), innovations that are regarded as central to the Second Demographic Transition, which has characterised the second half of the twentieth century in developed countries (van de Kaa 1997).

Changes in how individuals perceived the world and their place in it were initially expressed through the social and human rights movements of the 1960s but also began to take on a more personal and concrete form, with social and legislative changes (Table 4.7) reflecting a growing demand for more personal autonomy in how individuals lived their lives (McDonald 1995). The impact of these internal changes to the psyche, on marriage and family formation,
was compounded by a rapidly changing economic environment. As can be seen from Table 4.7, the Long Boom, which had imparted such stability and confidence to the older cohort, started to peter out in the 1970s. This was accompanied by higher unemployment rates, high inflation, high interest rates and a more competitive labour market, all of which contributed to an environment of comparative economic insecurity in which the costs associated with early marriage and parenthood may have been seen to outweigh the benefits. This was fuelled by increased social acceptance of non-traditional relationships that allowed individuals to achieve independence from parents and experience satisfying sexual and emotional relationships without the degree of commitment required by marriage and children. The impact of these changes is reflected in the increase in age at first marriage and the decline in fertility that characterised the period of early and mid-adulthood for a substantial number of baby boomers (Hugo 1983; McDonald 1984, 1995).

Marriage and family continued to occupy an important role in society but the entry of baby boomers into adulthood resulted in subtle changes to the basic character of these institutions. The familistic model began to give way to a more individualistic one in which the marriage relationship and the female biography assumed greater importance. Labour participation rates for married women had increased dramatically at all ages. For example, 14.4 per cent of married women aged 25-29 in 1954 (born 1925-1929) were in the labour force in contrast to 48.4 per cent of married women aged 25-29 in 1981 (born 1952-1956) (McDonald 1984). Children, while still important, ceased to play a central role and were increasingly considered an option that couples would ‘… fit into their life plan if possible’ (McDonald 1984: 14 - archived electronic documen.t pn ba sed on pr intout). Changing attitudes to the centrality of childbearing in a woman’s life are also highlighted by McDonald (1984) in his comparison of results from two surveys, one undertaken by the Australian National University (ANU) in 1971 and the other by the Australian Institute of Family Studies (AIFS) in 1982. In both surveys, respondents aged 35 and under were asked to comment on the statement: ‘Whatever career a woman may have her most important role in life is still that of becoming a mother’. In the 1971 survey, 78 per cent of women agreed with the statement compared to only 46 per cent of those in the 1982 survey (McDonald 1984).
Table 4.7: Changes to the Social and Economic Context Between 1960 and 1990

<table>
<thead>
<tr>
<th>Decade</th>
<th>Age at decade mid-point</th>
<th>Economic Context</th>
<th>Social and legislative Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960s</td>
<td>4-13</td>
<td>• Strong economic growth (avge GDP growth 5.3%)</td>
<td>1961 Introduction of the Pill</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• High tariff protection of industry</td>
<td>1963 Federal Government set up the Women’s Bureau</td>
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<tr>
<td></td>
<td></td>
<td>• High male employment rates</td>
<td>1966 Lifting of ban on married women in the Commonwealth Public Service</td>
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<tr>
<td></td>
<td></td>
<td>• Low unemployment rate (avge &lt; 2 %)</td>
<td>1969 Decriminalisation of abortion in various States</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Low inflation (average 2.5 %)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Low interest rates (avge around 6.5 %)</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>1970s</td>
<td>14-23</td>
<td>• Weaker and volatile economic growth (average GDP growth 3.2 %)</td>
<td>1972 Passage of Child Care Act</td>
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<tr>
<td></td>
<td></td>
<td>• International oil crisis</td>
<td>Commonwealth Arbitration Commission - equal pay for women in same job as men</td>
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<tr>
<td></td>
<td></td>
<td>• Easing of tariffs in agricultural, manufacturing and mining sectors</td>
<td>Women’s Electoral Lobby launched in Melbourne</td>
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<td></td>
<td></td>
<td>• Significant restructuring in some industry sectors</td>
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<td></td>
<td></td>
<td>• Increasing unemployment (up to nearly 17 per cent for 15-19 age group)</td>
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<td></td>
<td></td>
<td>• Growth in female employment</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• High inflation (average 10.6 %)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Higher interest rates (just over 10 % in 1975 - above 9 % for remainder of decade)</td>
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<tr>
<td></td>
<td></td>
<td>• Recession early in decade</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Floating of exchange rate/liberalising of financial sector</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Unemployment above 6 % for most of decade and peaking at 10 % in 1982</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• High youth unemployment (Peaked in 1983 at 22.6 % for 15-19 age group and 14.7 % for 20-24 age group)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Continued growth in female employment</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• High inflation (average 7.9 %)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Interest rates &gt; 10 per cent throughout decade peaking at 17 % in 1989</td>
<td></td>
</tr>
</tbody>
</table>

The age at decade mid-point represents age range of those born between 1952-1961 at the decade mid-point
Source: McDonald 1995; Brown 2002-03; ABC 2002
The shift to a more individualistic model is also reflected in the assumptions underlying the Family Law Act of 1975 which was informed by an ideology of family based on partnership rather than patriarchy. A 1977-1978 survey of community attitudes investigating the degree of alignment between the ideology embodied in the Act and contemporary social values found that ‘… 55.5 per cent of survey respondents were concentrated on the democratic side of the continuum, while only 17.2 per cent represented the traditional concept of the family’ (Ozdowski 1980:198). Despite this, the husband was still considered to have leadership status particularly in contacts with the outside world (Ozdowski 1980), thus reflecting the transitional nature of contemporary values at this point in time. Survey respondents included a cross section of ages within the community and it is possible that responses were somewhat more conservative than would be found in a survey comprised solely of baby boomers. Institutional recognition of the social changes taking place is also reflected in the 1986 Census in which the term ‘head of household’ was abandoned in favour of the more neutral ‘Person No. 1’, reflecting a recognition that while historically the head of the household was assumed to be the husband, this might no longer be the case (Hugo 1983:70).

Although these changes can in large part be attributed to a society-wide increase in the value placed on personal autonomy and fulfilment, it is unlikely that marriage and the meaning of relationship within marriage, would have changed so fundamentally without the influence of Feminism and the advent of the Pill (McDonald 1995). Improved birth control through the Pill, the IUD, and abortion, effectively ruptured the link between sexuality and reproduction and, together with Feminist and liberal values, contributed to a change in how gender was constructed within marriage (Giddens 2002). This paved the way for an idealistic conception of marriage in which the values of personal intimacy, happiness and fulfilment became more important than values based on mutual utility (McDonald 1984; Glezer 1993; Wolcott and Hughes 1999; Giddens 2002). For baby boomer women, marriage was no longer the primary vehicle through which social status could be achieved, nor was it the main mechanism through which economic security and independence could be attained. Better education, increased access to the labour market, and control over fertility gave women far greater choices than previously and contributed to the erosion of traditional values in which the role of homemaker was expected to be the sum of female aspirations. Financial independence, whether
through work supporting others benefit, together with increased social acceptance of divorce, also provided a way out of unhappy marriages.

The shift of emphasis from utility to intimacy in marriage, together with a social climate, which attributed greater value to personal choice and autonomy, resulted in more diverse pathways to family formation. Baby boomers increasingly left home for reasons other than marriage (Glezer 1993) and were at the forefront of the contemporary trend in cohabitation with 16 per cent of all couples marrying in 1975 having lived together prior to marriage (McDonald 1995:38). However, cohabitation for this cohort represented a more cautious approach to marriage rather than a replacement for marriage itself with only 2-3 per cent of women who reached age 25 during the years 1977-1981 (born 1952-1956) having cohabited in relationships that did not end in marriage (Qu & Weston cited in Carmichael and Whittaker 2007:32). Glezer (1993), drawing on the Australian Family Formation Study, noted that later born baby boomers were more likely to cohabit prior to marriage (36 per cent) than earlier born boomers (22 per cent), indicating the acceleration of non-traditional approaches to relationship formation over time.

4.3.3 A Comparison of the Census Data

ABS Census data supports the notion that the family structures and relationships characteristic of baby boomers born 1952-1961 are more diverse than those experienced by the 1927-1936 cohort. However, the process of transformation is something that is occurring over time, hence there is considerable variability across the baby boomer cohort in relation to both attitudes and behaviour (Brown 2002-03). For instance, the earlier marriage patterns of the 1927-1936 cohort were still common amongst baby boomers born in the mid to late 1940s with a trend to later marriage beginning with those born in the 1950s and a significant reversal of low age at first marriage only occurring from the mid-1970s onwards (McDonald 1995). The acceleration of changes to marriage patterns and family formation evident in those born in the mid to late 1950s and early 1960s is almost certainly due to the rapidly changing contextual influences to which they were subject, with later born baby boomers having greater social freedom but a more constrained economic environment. Although baby boomers were at the forefront of changing values, they heralded the transformation of traditional everyday
institutions rather than embodied it in large numbers. Hence, the differences identified here represent the outcomes for a cohort, which entered maturity at the beginning of a transition, and are, therefore, not of the magnitude that might be expected for future generations at this stage in life. Equally, the fact that this analysis examines each cohort at only one point in time means that some aspects of difference, such as cohabitation at young ages, will not be captured in these data.

4.3.3.1 Marital Status

Table 4.8 shows significant differences between the cohorts in registered marital status with nearly 15 per cent more of the 1981 cohort being married at this age than those in the 2006 cohort.

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>1981 – Aged 45-54</th>
<th>2006 – Aged 45-54</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Males</td>
<td>Females</td>
<td>Persons</td>
</tr>
<tr>
<td>Married</td>
<td>82.0</td>
<td>80.2</td>
</tr>
<tr>
<td>Div/Sep</td>
<td>8.8</td>
<td>9.8</td>
</tr>
<tr>
<td>Never Married</td>
<td>7.7</td>
<td>4.1</td>
</tr>
<tr>
<td>Widowed</td>
<td>1.5</td>
<td>5.9</td>
</tr>
<tr>
<td>Total</td>
<td>749 100</td>
<td>719 200</td>
</tr>
</tbody>
</table>

Source: ABS, 1981b, 2006b

Much of this difference is due to an increase in the percentage of those who were separated and divorced, which almost doubled for males and more than doubled for females. Percentage differences in divorce/separation for males and females have widened from around 1 per cent more females aged 45-54 being divorced/separated in 1981 to around 4 per cent more in 2006. However, there is also a considerable increase in those who have never married with this having more than doubled for both males and females. These changes reflect the variety of factors discussed above. The percentage of those widowed has decreased by 1.8 per cent with there now being more females in the never married category than in the widowed category. This reduction is most noteworthy for females, with the percentage widowed having more than halved from 5.9 per cent for the 1981 cohort to 2.7 per cent for the 2006 cohort. Changes to
widower status are considerably less for males, reflecting the diminishing gap in mortality rates between females and males (AIHW 2006).

Data on registered marital status is useful for ascertaining the degree of adherence to traditional models of marriage but less useful for ascertaining the extent to which individuals are currently living in a partnership. This is better identified through social marital status that provides a distinction between registered marriage and de facto marriages. Although this information was not collected in the 1981 census, Table 4.9 shows how partnerships were constituted for those aged 45-54 in 2006. The proportion in de facto unions causes the percentage difference between the two cohorts for those who are unpartnered to fall from 14.8 per cent to 6.7 per cent. It is impossible to determine the proportion of the 1927-1936 cohort in de facto unions at age 45-54, however, an ABS Survey of Families (1982) that asked respondents to indicate whether their marriage relationship was de facto or registered, suggests that a much smaller proportion of this cohort were in such unions (Hugo 1983).

<table>
<thead>
<tr>
<th>Table 4.9: Social Marital Status for those Aged 45-54 in 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>Registered Marriage</td>
</tr>
<tr>
<td>De Facto Marriage</td>
</tr>
<tr>
<td>Total Partnered</td>
</tr>
<tr>
<td>Not Partnered</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Source: ABS 2006a

The impact of cohabitation on wellbeing in later life is difficult to ascertain, as while there is evidence that marriage is a protective factor for ageing well (Vaillant 2003) and contributes to higher levels of wellbeing than other marital statuses (de Vaus et al. 2007b; Buchler et al. 2008; Stack and Eshleman 2008), the extent to which equivalent benefits are experienced by older couples in de facto relationships is less certain. Most research on cohabitation has focused on younger age groups (Rinelli 2008) and tends to suggest that the extent to which cohabiting relationships are equivalent in quality to married relationships varies according to a range of factors such as marriage plans and previous marital history (Buchler et al. 2008). Existing research on older couples cited by Buchler et al. (2008) shows variable results with one Norwegian study of mid-age couples showing little difference between the quality of
cohabiting and married relationships. However this may be due to the fact that cohabitation in Norway is widespread and has high levels of acceptance (Buchler et al. 2008). By contrast, a recent US study of older cohabiting adults found evidence of ‘... fairly systematic disadvantage among older cohabiters, especially in comparison to their remarried counterparts’ with cohabiters being less likely to be home owners and more likely to use alcohol and to score lower on measures of social relationships (Brown et al. 2006).

Data compiled by Weston and Qu (2007) (Figure 4.6) show that the 1952-1961 cohort was the first in which significant percentages of women ever partnered identified their first couple relationship as being one of cohabitation rather than marriage, with this increasing for subsequent generations.

**Figure 4.6: Women Ever Partnered – Start of First Couple Relationship by Year of Birth**

Source: Weston and Qu 2007, (Data Source: 3 datasets combined: HILDA 2001; Negotiating the Life Course 1997 (ANU); Australian Life Course Survey 1996 (AIFS))

This familiarity with cohabitation could mean that, as they age, baby boomers will be more likely than previous generations to look favourably on cohabitation as an alternative to marriage. As Figure 4.7 indicates, cohabitation in later life is more likely to be embraced by those who are divorces or separated, than by those who are widowed or have never married. In addition, some researchers have suggested that for older adults, there are more disincentives for remarriage than there are for cohabitation (Chevan 1996 cited in Brown et al.)
These relate to issues of economic and personal autonomy and include concerns about pension entitlements, inheritance, and future care-giving obligations (Brown et al. 2006). An unwillingness to compromise or modify these areas of life could be construed as reflecting a reduced willingness to make a strong commitment. If this is the case then cohabiting relationships may not provide the same degree of stability as married relationships. In addition, the tendency for late life cohabiters to be divorced means that cohabitation may also be characterised by greater disadvantage due to the impact of divorce on financial security (de Vaus 2004).

Figure 4.7: Registered Marital Status of de Facto Married, Australia, 2001

Note: The small percentage including marriage as their marital status has been excluded
Source: ABS 2002

4.3.3.2 Family Type

The Family Type variable was not available in the 2006 CSF, consequently, this section uses the 2001 and 1981 HSFs to compare baby boomers with their predecessors. As the categories used to construct the Family Type variable have altered considerably between Censuses it has been necessary to recode the classifications within each Family Type variable to facilitate a comparison. Further discussion of this variable is available in Appendix 2.1. Table 4.10 shows the classifications available in the 1981 and 2001 HSFs.
Table 4.10: Classifications used in Family Type Variable – 1981 and 2001 HSFs

<table>
<thead>
<tr>
<th>1981 Census</th>
<th>2001 Census</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head only</td>
<td>Couple family with children under 15</td>
</tr>
<tr>
<td>Head, spouse &amp; dependents</td>
<td>Couple family with dependent students (15-24)</td>
</tr>
<tr>
<td>Head, spouse, adults &amp; dependents</td>
<td>Couple family with children under 15 &amp; dependent students</td>
</tr>
<tr>
<td>Head and Spouse</td>
<td>Couple family with non-dependent children</td>
</tr>
<tr>
<td>Head and Dependents</td>
<td>Couple family without children</td>
</tr>
<tr>
<td>Head, adults &amp; dependents</td>
<td>One parent family with children under 15</td>
</tr>
<tr>
<td>Head, spouse &amp; adults</td>
<td>One parent family with dependent students (15-24)</td>
</tr>
<tr>
<td>Head and adults</td>
<td>One parent family with children under 15 &amp; dept students</td>
</tr>
<tr>
<td>Not applicable</td>
<td>One parent family with non-dependent children</td>
</tr>
<tr>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td></td>
<td>Other family</td>
</tr>
</tbody>
</table>

Source: ABS 1981b, 2001b

Categories within Family Type for each of the Census years were combined as set out below:

a) The 1981 ‘Head, spouse and dependants’ was combined with the 1981 ‘Head, spouse, adults and dependents’

b) The 1981 ‘Head and dependants’ was combined with the 1981 ‘Head, adults and dependents’

c) The 2001 ‘Couple family with children under 15’, ‘Couple family with dependent students (15-24)’, ‘Couple family with children under 15 and dependent students’ was combined with the 2001 ‘Couple family with non-dependent children’

d) The 2001 ‘One parent family with children under 15’, ‘One parent family with dependent students (15-24)’, ‘One parent family with children under 15 and dependent students’ was combined with the 2001 ‘One parent family with non-dependent children’

The rationale for this approach is based on results from an earlier study of Family Type in the 1981 Census (Hugo 1983). Findings from this study show that the age profile of the categories ‘Head, spouse, adults and dependents’ and ‘Head, adults and dependents’ was very similar to that of ‘Head, spouse and dependants’ and ‘Head and dependants’. Implied in the findings is that most of the adults in these categories were probably adult children. By contrast, the same analysis found that adults in the categories ‘Head, spouse and adults’ and ‘Head and adults’, were most likely to be older relatives, as the age-sex structure of the total population in this family type was dominated by those in the 35-64 and 65+ age groups (Hugo 1983:48). The problem with combining the categories set out above is, firstly, it is not totally
accurate, as the new 1981 category would inevitably include some older adults, and secondly, it means that families with independent adult children and dependent children cannot be differentiated. Although this approach is not ideal it provides a reasonable view of the proportion of couples and single parent families with children living at home.

Based on these reclassifications, Table 4.11 shows that the most marked change between the two cohorts is an increase in the percentage of couple and single parent families with children. The proportion of baby boomers in couple families with dependent and non-dependent children is around 12 per cent higher than for the previous generation at the same age while single parent families with children have more than doubled from 3.4 per cent to 8.5 per cent. Although the 1981 cohort actually has a lower percentage in the couple only category this is not a true indicator of the proportion who had reached the empty nest stage, as it is likely that a significant proportion of the 1981 ‘Head, S pouse and Adults’ classification consisted of couples whose children had left home.

<table>
<thead>
<tr>
<th>Classification</th>
<th>1981 – Aged 45-54</th>
<th>2001 – Aged 45-54</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
</tr>
<tr>
<td>Couple only</td>
<td>16.2</td>
<td>22.7</td>
</tr>
<tr>
<td>Couples/dependants/adults</td>
<td>43.8</td>
<td>31.0</td>
</tr>
<tr>
<td>Couples/dep &amp; non dep children</td>
<td>1.6</td>
<td>5.3</td>
</tr>
<tr>
<td>Sole parent/dependents/adults</td>
<td>7.5</td>
<td>4.6</td>
</tr>
<tr>
<td>Sole parent/dep/non-dep children</td>
<td>8.1</td>
<td>6.5</td>
</tr>
<tr>
<td>Head only</td>
<td>19.3</td>
<td>23.7</td>
</tr>
<tr>
<td>Head and spouse and adults</td>
<td>3.5</td>
<td>6.1</td>
</tr>
<tr>
<td>Other family</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Total</td>
<td>749100</td>
<td>719200</td>
</tr>
</tbody>
</table>

1 1981 – Cohort born 1927-1936; adults includes adult children and related adults
2 2001 – Cohort born 1947-1956
Source: ABS 1981b, 2001b

This supposition is consistent with previous research, shown in Table 4.12, which has found significant increases in the percentage of young adults living with their parents (Weston et al. 2001).
The growth of the single parent family is linked with greater acceptance of, and financial support for, single parenthood but also with an increase in marital breakdowns (McDonald 1995). The much higher percentage of both couple and single parent families with children in the 2001 cohort reflects two key factors. The first is the move towards delayed marriage and child bearing initiated by the baby boomers from the mid 1970s onwards (Hugo 1983; McDonald 1984) and the second is a reversal of the trend to leave home at a young age (Flatau et al. 2007). The two together contribute to a much higher percentage of families with children in an age group, which for many of the 1927-1936 cohort signalled the beginning of the empty nest stage.

The extended dependency of the baby boomers’ children is linked to the extension of education over a longer period of time, with a substantially higher proportion of young people attending tertiary institutions (McDonald 1995). This has contributed to a longer period of dependence as government allowances to students are means tested on parental income and are generally not enough to provide for independent living without being supplemented by paid work or parental financial support (Southern Tasmanian Youth Transitions Taskforce 2008). Allowances are equally low for job seekers aged between 16 and 20, thus effectively discouraging independent living in this group as well. The drive to independence is further deterred by the high rents that characterise the contemporary economic context (ABS 2007). The extent to which parents provide either transferable resources in the form of cash to

---

### Table 4.12: Young Adults Living at Home: 1981 and 1998

<table>
<thead>
<tr>
<th>Living at Home</th>
<th>Survey Year</th>
<th>Age 20-24 Years</th>
<th>Age 25-29 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Men %</td>
<td>Women %</td>
</tr>
<tr>
<td>Those living at home when surveyed</td>
<td>1981</td>
<td>54.8</td>
<td>37.7</td>
</tr>
<tr>
<td></td>
<td>1998</td>
<td>64.3</td>
<td>53.5</td>
</tr>
<tr>
<td>Those who had never left home</td>
<td>1981</td>
<td>35.2</td>
<td>24.2</td>
</tr>
<tr>
<td></td>
<td>1998</td>
<td>35.1</td>
<td>35.9</td>
</tr>
<tr>
<td>Those who had left home and returned at least once</td>
<td>1981</td>
<td>52.2</td>
<td>44.3</td>
</tr>
<tr>
<td></td>
<td>1998</td>
<td>66.7</td>
<td>56.9</td>
</tr>
</tbody>
</table>

Source: Weston et al. 2001:14

---

8 Youth Allowance, for students aged 16-25 not living at home and job seekers aged 16-20, is $371.40 per fortnight and Newstart Allowance for job seekers aged 21 and over is $449.30 per fortnight (Centrelink 2009).
supplement student income, or non-transferable resources such as those tied to the parental home (e.g. free rent, washing, meal provision etc.) also affects the decision to leave home (Flatau et al. 2007). However, it is also likely that greater social and intellectual independence is possible within the family home than was available to young adults of the pre-boomer generation, with this making an extended stay in the parental home more attractive. Changed values mean that the formation of an exclusive and intimate sexual relationship is no longer chiefly associated with cohabitation or marriage, with McDonald noting that ‘… sex in the parent’s home is accepted or tolerated where the relationship is seen to be a committed one’ (McDonald 1995:44).

The impact of extended youth dependency on parents has not been well-researched (Cobb-Clark 2008) but is likely to have a number of implications. Although intergenerational co-residence can have positive effects on life satisfaction and family relationships it can also impose additional strain, with some studies showing that parents whose children have left home often have higher marital and housing satisfaction (Cobb-Clark 2008). The introduction of Youth Allowance in 1998 means that the burden of support is increasingly being shifted to the family (Cobb-Clark 2008), and while this may reduce the burden on the public purse at one stage of the life cycle, it may well increase it later on, as extended youth dependency means that baby boomers will reach the empty nest stage later than their predecessors. In addition, a reasonable proportion of baby boomers feel an obligation to assist their children into home ownership with this further inhibiting their own ability to save for their retirement (Beer and Faulkner 2009).

These factors will have a negative impact on their financial preparedness for later life, as it affects their capacity to pay off the family home and to boost savings for retirement, with Percival and Harding (2002:3) estimating that the costs of supporting 18-24-year-olds are substantially more than the costs of supporting children aged 5-9 years. Support for the Australian Government’s stance that ‘… wherever possible families should support their children until they have achieved financial independence’ (Cobb-Clark 2008:24), is not unanimous and raises a number of issues related to equity. The expectation that parents will provide prolonged support causes hardship for parents with low incomes; may reduce the incentive to study for less well-off individuals (Southern Tasmanian Youth Transitions 111).
Taskforce 2008); and also ignores the fact that the education of youth provides benefits to all of society, not simply to the recipients of education. Hence, the distribution of responsibility for financial support at this stage of the life cycle should be a matter for public debate and further research, particularly given the impact that extended support may have for future retirement savings.

4.3.3.3 Household Composition

The 1981 Census did not collect data on lone person households or group households. Information on ‘Head only’ collected in the 1981 Family Type variable is not an accurate reflection of lone person households because it was used to designate either a person living on their own or living with other non-family individuals (ABS 1981a; Hugo 1983). However, data on both lone person and group households were collected in the 1986 Census and so a comparison of the changes to household composition, set out in Table 4.12, have been made using the 1986 and 2006 Censuses. Table 4.13 shows a decrease (5.2 per cent) in family households for this age group and an increase (4.7 per cent) in lone person households, with these changes reflecting increases in those who are separated/divorced and those who have never been married. In addition, the percentage of households consisting of two or more families has halved, suggesting that baby boomers are less likely to have co-resident parents. The increase in lone person households in this age group is of policy significance as living alone at older ages is associated with poorer self-rated health, less social and instrumental support and greater risk of social isolation and exclusion (Naughtin 2008). Equally, the increase in lone households has implications for the future housing requirements of older people.

<table>
<thead>
<tr>
<th>Household Type</th>
<th>Aged 45-54 in1986</th>
<th>Aged 45-54 in 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male  %</td>
<td>Female  %</td>
</tr>
<tr>
<td>1 family household</td>
<td>87.1</td>
<td>88.4</td>
</tr>
<tr>
<td>2 or more family h/holds</td>
<td>3.8</td>
<td>4.6</td>
</tr>
<tr>
<td>Group households</td>
<td>2.0</td>
<td>1.6</td>
</tr>
<tr>
<td>Lone person households</td>
<td>7.2</td>
<td>5.4</td>
</tr>
<tr>
<td>Total</td>
<td>759 300</td>
<td>742 600</td>
</tr>
</tbody>
</table>

Source: ABS 1986; 2006b
4.3.3.4 Issue/Children

Table 4.14 shows that women born in the 1952-1961 cohort were more likely to have zero, one, or two children than women in the 1927-1936 cohort, and much less likely to have three or more children. Indeed, the percentage of women who were childless at the age of 45-54 in the 1927-1936 cohort was unusually low with rates of childlessness in previous cohorts being much higher, particularly for those born in the 1890s and early 1900s when rates reached 30 per cent (Rowland 2003a:254-5). The increase in childlessness and smaller families evident in the 1952-1961 cohort has been influenced by women’s increasing participation in education and the labour force, with women who work outside the home having lower fertility rates than those who are not in the workforce (Hugo and Wood 1983). Equally, women in professional occupations and those with high levels of educational attainment are even more likely to have fewer children and to delay childbearing (Hugo and Wood 1983) with McDonald (1998:9-10) noting that women with Bachelor degrees aged 35-39 in 1996 (born 1957-1961) had about 1.55 children compared to those with no qualifications who had around 2.15 children, while those in professions had around 1.61 children, and those in production and processing jobs had about 2.01. However, this study also showed that socio-economic associations with fertility were most evident for women not in a registered marriage with differences in the fertility rates of those in registered marriages being small, regardless of their occupational or income status (McDonald 1998:10-11). The shift in gender roles has made childbearing costly in terms of women’s personal autonomy and development, with arguments being put forward that this is exacerbated by a lag in the development of gender equity in family-oriented institutions in contrast to the more advanced development of individual-oriented institutions related to education and workforce opportunities (McDonald 1997, 1998).

<table>
<thead>
<tr>
<th>Number of Children</th>
<th>1981 %</th>
<th>2006 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>9.1</td>
<td>13.8</td>
</tr>
<tr>
<td>One</td>
<td>8.6</td>
<td>11.9</td>
</tr>
<tr>
<td>Two</td>
<td>25.2</td>
<td>37.0</td>
</tr>
<tr>
<td>Three or more</td>
<td>57.1</td>
<td>37.3</td>
</tr>
<tr>
<td>Not Stated</td>
<td>6.1</td>
<td>5.1</td>
</tr>
<tr>
<td>Total</td>
<td>719 200</td>
<td>1 373 700</td>
</tr>
</tbody>
</table>

Source: ABS 1981b; 2006b
Children are a key source of instrumental and emotional support for parents in later life and a reduction in the number of children available to provide this support will have an impact on both older individuals and on the effectiveness of existing community aged care services (AIHW 2007). Although informal caregivers for those with a disability in the 65-74 age group are usually co-resident with the care recipient (72 per cent) and are most likely to be spouses, informal caregivers for those in the 85+ group usually reside elsewhere (79 per cent) and are most likely to be adult children (AIHW 2007:97). The imputed value of unpaid informal care across the age spectrum is $41.4 billion, nearly double that of the paid care workforce (AIHW 2007:310). Informal caregivers play an important role not only through the care they provide, but also because they facilitate the provision of formal community services by being the contact person through which such services are organised and delivered (AIHW 2007:98). Both of these roles make it possible for older people to remain in the community longer and hence reduce the number of residential care places that are required. An increase in the number of individuals who are childless therefore has implications for the provision of aged care services at both the community and residential care levels. A reduction in the pool of children available to provide informal care to aged parents will also have an impact. In families with only one or two children the care-giving load will be more intense as there will be fewer children to share the responsibility. This has implications for the labour force participation of caregivers (Schofield et al. 1997), for their health (Vitaliano and Katon 2006), and for their financial and general wellbeing in retirement (AIHW 2007:97). Equally, a reduction in the number of children results in a reduced likelihood that there will be a child living in sufficient proximity to provide care. The success of the de-institutionalisation of aged care and disability services, begun in the 1980s, depends, to a significant extent, ‘… on the availability of informal carers to take on a caring role’ (AIHW 2003:65), hence smaller families and increased childlessness is of significance for the future provision of aged care services.
4.4 Conclusion

This chapter has summarised the course of social change over the 20th century, with a view to providing a perspective on the distinct social context that influenced baby boomers as they grew up and reached maturity. It has identified the first half of the 20th century as building on and consolidating the values of individual liberalism that originated with the Enlightenment. However, it has also noted that this largely occurred within the parameters of established values related to class, gender and the Church with progressive movements such as New Education being constrained by economic conditions and conservative notions of social progress. It has shown that with the end of World War II the pace and scope of change accelerated. This was due to a confluence of factors that served to precipitate into actuality many of the goals, desires and ideas that had been incubating in the first half of the century. These factors included the economic boom, rapid scientific, medical, and technological innovation, the expansion of the welfare state, the democratisation of education, the advent of the contraceptive pill and growing influence of Feminism. The combination of these factors facilitated the transformation of everyday institutions such as marriage, the family, religion, and education, with the values of individual liberalism giving birth to an unexpected complexity and diversity that is captured in the concepts of reflexive modernity and individualisation. This is borne out by the comparison of demographic variables for each cohort at age 45-54. Variables related to religion, education and marital status support the notion that the basis on which the 1927-1936 cohort established their adult life was still largely influenced by the traditional values of the first half of the 20th century. By contrast, the same variables in relation to the baby boomer cohort reflect greater diversity and less conservatism. This is indicated by significantly higher levels of education, lower rates of marriage, increased rates of divorce/separation, more diverse living arrangements, reduced fertility and a much greater percentage with no religious affiliation. These changes to everyday institutions will affect how baby boomers experience later life, particularly in relation to expectations, social support, social integration and financial preparedness for retirement. The next five chapters will provide a more fine-grained analysis of baby boomers and, based on the conceptual framework discussed in Chapter 2, will explore how self-protection and self-insurance resources vary by subgroups within the cohort, and the extent to which public protection mechanisms are likely to adequately support those with few resources.
Chapter 5: Are Baby Boomers Preparing?

‘It pays to plan ahead. It wasn't raining when Noah built the ark’.

Anonymous

5.1 Introduction

Chapter 3 explained the rationale for using a holistic framework to examine the preparations baby boomers make for later life by drawing attention to how the increased emphasis on self-responsibility, together with changes to everyday institutions, have fundamentally altered the social risks associated with old age. The purpose of this chapter is to identify whether baby boomers have responded to these changes by actively preparing or planning for later life. For instance, to what extent is the propensity to plan and the type of planning undertaken differentiated within the cohort? Do baby boomers actively seek advice on later life planning or do they rely on their own knowledge? Do they reflexively plan for later life by constantly monitoring and adapting their lives with a view to future outcomes? This chapter begins that exploration by examining the extent to which different subgroups of baby boomers make both formal and informal plans for later life. Section two profiles the socio-demographic characteristics of the cohort as these reflect core resources baby boomers bring to later life and influence their capacity to both self-protect and self-insure. Section three draws on NWAHS data and the literature, to identify trends in relation to baby boomers’ retirement intentions and expectations. Together, these two sections provide a necessary background from which to undertake a more fine grained analysis of how subgroups within the cohort approach later life. The fourth section explores attitudes to later life planning and patterns of advice-seeking, while Section five examines the impact of positive or successful models of ageing on attitudes and actions relating to the self-protection domain. Section six examines the extent to which baby boomers reflexively plan by making informal preparations in relation to key self-protection domains.
5.2 Socio-demographic Characteristics

The majority of respondents were born in Australia, were in a married/de facto relationship, had a gross household income of over $40,000 per annum, held post secondary qualifications and lived in a family with children. However, there were some significant variations by gender and cohort. These are summarised below and detailed tables are included in Appendices 3.1 to 3.3. Several of these variations are related to life stage, with the 1946-55 cohort being more likely to be widowed, living with partner only, living alone or living with other adults (Table 5.1). These differences reflect both the empty nest stage and the increased likelihood of solo living that occurs with age (Centre for Ageing Studies 2006; Hugo et al. 2009).

Table 5.1: Selected Demographic Characteristics by Each Baby Boomer Age Cohort – Marital Status and Living Arrangements

<table>
<thead>
<tr>
<th>Variable</th>
<th>1946-55 Cohort - aged 51-60 %</th>
<th>1956-65 Cohort - aged 41-50 %</th>
<th>P Val</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital Status</td>
<td>n=557</td>
<td>n=636</td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td>3.0</td>
<td>0.3</td>
<td>.002</td>
</tr>
<tr>
<td>Living Arrangements</td>
<td>n=553</td>
<td>n=634</td>
<td></td>
</tr>
<tr>
<td>Living alone</td>
<td>12.1</td>
<td>6.0</td>
<td>.000</td>
</tr>
<tr>
<td>Living partner only</td>
<td>34.1</td>
<td>11.2</td>
<td>.000</td>
</tr>
<tr>
<td>Living with other adults</td>
<td>9.6</td>
<td>5.9</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: NWAHS Stage 2, 2004-06

These variations were also mediated by gender with females in the 1946-55 cohort being more likely than males to live with other adults and to have an income of less than $60,000 (Table 5.2). These gender differences were not present in the 1956-65 cohort and suggest that women’s risk of marginalisation increases as they grow older. This is supported by the fact that while 1946-55 males were marginally less likely than 1956-65 males to have an income of between $60-100,000 (.053), 1946-55 females were significantly more likely than their 1956-65 counterparts to have an income of $20,000 or less (.029) (Appendix 3.3). This reflects the reduced opportunities women have to accumulate retirement income due to more interrupted work careers and has implications for their wellbeing in retirement.
Table 5.2: Selected Demographic Characteristics by Gender within Each Baby Boomer Age Cohort – Living with Other Adults and Income

<table>
<thead>
<tr>
<th>Variable</th>
<th>1946-55 Cohort - aged 51-60</th>
<th>P Val</th>
<th>1956-65 Cohort - aged 41-50</th>
<th>P Val</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male %</td>
<td>Female %</td>
<td>Male %</td>
<td>Female %</td>
</tr>
<tr>
<td><strong>Living Arrangements</strong></td>
<td>n=273</td>
<td>n=280</td>
<td>n=310</td>
<td>n=323</td>
</tr>
<tr>
<td>Living with other adults</td>
<td>7.6</td>
<td>11.5</td>
<td>.048</td>
<td>5.6</td>
</tr>
<tr>
<td><strong>Household Income</strong></td>
<td>n=267</td>
<td>n=267</td>
<td>n=308</td>
<td>n=321</td>
</tr>
<tr>
<td>&gt; $100,000 (ref cat)</td>
<td>13.3</td>
<td>6.8</td>
<td>9.9</td>
<td>9.3</td>
</tr>
<tr>
<td>Up to $20,000</td>
<td>13.2</td>
<td>17.0</td>
<td>.012</td>
<td>6.4</td>
</tr>
<tr>
<td>$20,001-$40,000</td>
<td>22.0</td>
<td>25.3</td>
<td>.017</td>
<td>19.1</td>
</tr>
<tr>
<td>$40,001-$60,000</td>
<td>23.2</td>
<td>28.9</td>
<td>.008</td>
<td>27.9</td>
</tr>
<tr>
<td>$60,001-$100,000</td>
<td>28.3</td>
<td>21.9</td>
<td>.218</td>
<td>36.7</td>
</tr>
</tbody>
</table>

Source: NWAHS Stage 2, 2004-06

Members of the 1946-55 cohort had lower levels of education, were less likely to have never married and included a greater proportion of migrants from the UK and Ireland (Table 5.3). The 1946-55 cohort entered the workforce in the 1960s when the economy was strong and the average unemployment rate was less than 2 per cent. This meant that work was easy to obtain and there was less need to boost employment prospects by gaining higher qualifications (Brown 2002-03). The lower proportion of never married in the 1946-55 cohort reflects the broad demographic trends of the 1960s with crude marriage rates only declining strongly in the 1970s (Brown 2002-03).

Table 5.3: Selected Demographic Characteristics by Each Baby Boomer Age Cohort – Education, Marital Status and Country of Birth

<table>
<thead>
<tr>
<th>Variable</th>
<th>1946-55 Cohort - aged 51-60</th>
<th>1956-65 Cohort - aged 41-50</th>
<th>P Val</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td>n=556</td>
<td>n=630</td>
<td></td>
</tr>
<tr>
<td>Bachelor degree (ref cat)</td>
<td>13.6</td>
<td>15.8</td>
<td></td>
</tr>
<tr>
<td>Left school at 15 yrs</td>
<td>16.9</td>
<td>7.1</td>
<td>.000</td>
</tr>
<tr>
<td>Left school &gt; 15 yrs</td>
<td>30.0</td>
<td>38.8</td>
<td>.565</td>
</tr>
<tr>
<td>Trade/Apprenticeship</td>
<td>16.0</td>
<td>13.5</td>
<td>.132</td>
</tr>
<tr>
<td>Certificate/Diploma</td>
<td>23.4</td>
<td>24.8</td>
<td>.643</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td>n=557</td>
<td>n=636</td>
<td></td>
</tr>
<tr>
<td>Never married</td>
<td>5.0</td>
<td>8.4</td>
<td>.046</td>
</tr>
<tr>
<td><strong>Country of Birth</strong></td>
<td>n=558</td>
<td>n=637</td>
<td></td>
</tr>
<tr>
<td>UK &amp; Ireland</td>
<td>21.4</td>
<td>15.4</td>
<td>.004</td>
</tr>
</tbody>
</table>

Source: NWAHS Stage 2, 2004-06

However, much of the difference in educational attainment also relates to changing gender roles and expectations for women, with females in the earlier cohort approaching significance for being more likely than males to have left school at 15 years of age or less (Table 5.4). This
was not the case for 1956-65 females of whom only 8.8 per cent left school at 15 years or less compared to 20.2 per cent of females in the earlier cohort. However, females in both cohorts were less likely to have trade/apprenticeship qualifications.

### Table 5.4: Gender Differences in Education by Each Baby Boomer Age Cohort

<table>
<thead>
<tr>
<th>Education</th>
<th>1946-55 Cohort - aged 51-60</th>
<th>1956-65 Cohort - aged 41-50</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males %</td>
<td>Females %</td>
</tr>
<tr>
<td>Bachelor degree (ref cat)</td>
<td>14.7</td>
<td>12.6</td>
</tr>
<tr>
<td>Left school at 15 yrs</td>
<td>13.7</td>
<td>20.2</td>
</tr>
<tr>
<td>Left school &gt; 15 yrs</td>
<td>19.6</td>
<td>40.4</td>
</tr>
<tr>
<td>Trade/Apprenticeship</td>
<td>30.4</td>
<td>1.9</td>
</tr>
<tr>
<td>Certificate/Diploma</td>
<td>21.7</td>
<td>25.1</td>
</tr>
<tr>
<td>Total</td>
<td>277</td>
<td>279</td>
</tr>
</tbody>
</table>

Source: NWAHS Stage 2, 2004-06

### 5.3 Retirement Expectations and Intentions

The literature suggests that many baby boomers see retirement as a positive experience, an opportunity to follow their interests or further their development (Burns 1996; Onyx and Baker 2006; Onyx and Leonard 2007). However, there is also considerable concern about whether financial resources will be sufficient to provide an adequate retirement income, to cover aged care needs and to leave an inheritance (Hamilton and Hamilton 2006; Hunter et al. 2007; Everingham et al. 2007). In addition, there are fears that the Pension will not be adequate, however, low income earners see little point in saving, with income tests for the Pension perceived as a disincentive (Quine et al. 2006). Findings from two studies indicate that many baby boomers feel disadvantaged because of changing ideologies about responsibility for retirement (Hamilton and Hamilton 2006; Quine et al. 2006). The Superannuation Guarantee (SG) is perceived as being implemented too late to be of benefit and the government is expected to take at least partial responsibility for financial provision in old age. Although low income earners are likely to hold their views (Hamilton and Hamilton 2006) a sense of unfairness about the late implementation of the SG is not confined to those with a low socio-economic status (SES) (Quine et al. 2006). Equally, Hamilton and Hamilton (2006:xiii) have noted that there appears to be a ‘... strong residual sense of social...’
justice among the baby boomers’ with 60 per cent agreeing that it was more important for the government to provide a decent Age Pension than to give tax concessions to self-funded retirees.

The likely retirement behaviour of baby boomers is of interest to both policy makers and researchers and has significance for a wide range of policy areas. The Australian Government encourages a phased retirement transition and encourages older workers to remain in the workforce for longer (Everingham et al. 2007). However, while a phased retirement transition is often conflated with extended labour participation they are not necessarily consonant. Findings from the Australian Survey of Retirement Attitudes and Motivations (ASRAM) indicate that only 58 per cent of baby boomers equate a phased retirement process with working longer, while 42 per cent equate it with retiring at the same age but gradually reducing work participation in the years prior to retirement (Jackson and Walter 2007a).

Although policies such as the Transition to Retirement Measure are aimed at encouraging workers to delay their exit, they may in fact encourage the latter group to transition from full to part-time employment earlier than intended due to the ability to access part of their super through an income stream (Walter et al. 2008). In addition, while many baby boomers appear to desire a phased retirement, beliefs about the extent to which this can be achieved have been shown to vary by gender, age, income and occupation (Hamilton and Hamilton 2006; Onyx and Baker 2006; Quine et al. 2006; Jackson and Walter 2007a). The decision to retire and/or to work part-time in later life is influenced by a wide range of factors including caring responsibilities, financial status, health, work satisfaction, gender, the labour force environment, lifestyle aspirations, government policy and the overall economic context (Knox 2003; Cobb-Clark and Stillman 2006; Hamilton and Hamilton 2006; Jackson et al. 2006b; Onyx and Baker 2006; Quine et al. 2006; Everingham et al. 2007; Hunter et al. 2007).

Research suggests that the majority of baby boomers are likely to consider working beyond their preferred retirement age (Jackson and Walter 2007a), while around 43 to 44 per cent would consider working beyond age 65 (Hamilton and Hamilton 2006; Jackson and Walter 2007a).

Over the past decade there has been a significant increase in the age at which Australians retire although this has not yet returned to levels common in the 1960s. For instance, while the
The effective age of retirement for Australian males increased from 61.8 during the period 1993-98 to 64.4 over the 2002-07 period, this is still lower than the 67.4 years recorded for the period 1965-70 (Organisation for Economic Cooperation and Development, nd). In 1997 the mean retirement age in Australia was 48 (58 for males and 41 for females) (ABS 1997), but by 2005 this had risen to 52 for older retirees and to 60 (61 for males and 58 for females) for more recent retirees (ABS 2006). While in 2008 it increased to 60.2 years (61.1 males and 59.2 females) for more recent retirees. Of particular interest is the closing of the gap between male and female retirement ages, which probably reflects the increase in female labour participation.

For respondents in this study the average intended age for retirement was 61.02 for males and 60.5 for females. However, as Figure 5.1 shows, members of the 1946-55 cohort intended to retire later than those in the 1956-65 cohort. This is consistent with previous literature noting that the expected retirement age tends to shift upwards with age (Jackson, Walter et al. 2006a). In the ASRAM study the mean expected retirement age of baby boomers was 64 years for males and 62 years for females (Jackson et al. 2006); Knox’s study (2003), which used Wave 1 HILDA data, found a slightly lower mean age at 61.4 for males and 59.3 for females; while Cobb-Clark and Stillman (2006), who used Waves 1-3 HILDA data, found males expected to retire at 60.1 and females at 58.4.

---

9 The average effective age of retirement is calculated as a weighted average of (net) withdrawals from the labour market at different ages over a 5-year period for workers initially aged 40 and over. In order to abstract from compositional effects in the age structure of the population, labour force withdrawals are estimated based on changes in labour force participation rates rather than labour force levels. These changes are calculated for each (synthetic) cohort divided into 5-year age groups. Source of data: OECD estimates based on the results of national labour force surveys, the European Union Labour Force Survey and, for earlier years in some countries, on national censuses. (OECD nd. Retrieved 13 July 2010).

10 This is the mean retirement age for all retirees - no differentiation was made between older and recent retirees.

11 Recent retirees = those who have retired in the last five years.

12 Only those who selected ‘Already thinking about or planning for retirement’ were asked this question – n=490.
Preferred retirement ages are generally about three years earlier than expected retirement ages and actual retirement ages usually fall about midway between preferred and expected (Cobb-Clark and Stillman 2006; Jackson et al. 2006a). Inadequate financial resources is a primary factor in delaying retirement beyond the preferred age (Hamilton and Hamilton 2006) while poor health, retrenchment and poor work opportunities are primary factors in triggering retirement prior to the desired age, particularly for the under-55 age group (ABS 2006e). Prevailing economic conditions, and events such as the Global Financial Crisis (GFC) can also exert a strong influence on the decision to delay retirement, and this is likely to become a more significant factor in the future due to the increased emphasis on superannuation as a major source of income in retirement. For baby boomers born 1955-1964, aged 45-54 in 2009, the GFC could reduce the superannuation available to them, in 2019, by up to 25.9 per cent, with this resulting in reduced living standards in retirement for individuals and higher pension outlays for government (Kelly 2009c). Recent research has found that 34.5 per cent of baby boomer workers had postponed their retirement plans due to the falling value of

*Figure 5.1: Intended Age of Retirement by Each Baby Boomer Age Cohort*

![Bar chart showing intended age of retirement by each baby boomer age cohort for two birth years: 1946 (n=225) and 1956 (n=264). The chart indicates that the intended age of retirement is generally about three years earlier than the expected retirement ages.](chart.png)

*p<0.001
Source: NWAHS TFU Survey 2 (CATI), 2007*
superannuation, and other investments, subsequent to the GFC (O’Loughlin et al. 2010). The impact of the GFC on baby boomers’ intended retirement age is also demonstrated in Table 5.5, which shows a significant upwards shift in the expected age of retirement since the GFC in 2008. A round 14 per cent more 55-59 year olds in 2008-09 expected to retire at age 65 or over than those the same age in 2004-05.

Table 5.5: Comparison of Intended Retirement Ages – 2004-05 and 2008-09

<table>
<thead>
<tr>
<th>Intended Ret Age</th>
<th>45-54</th>
<th>55-59</th>
<th>60-64</th>
<th>65 &amp; over</th>
</tr>
</thead>
<tbody>
<tr>
<td>45-59</td>
<td>31.7 %</td>
<td>19.7 %</td>
<td>8.5 %</td>
<td>4.6 %</td>
</tr>
<tr>
<td>60-64</td>
<td>29.4 %</td>
<td>33.5 %</td>
<td>40.0 %</td>
<td>30.0 %</td>
</tr>
<tr>
<td>65-69</td>
<td>33.3 %</td>
<td>39.6 %</td>
<td>46.3 %</td>
<td>55.4 %</td>
</tr>
<tr>
<td>70 +</td>
<td>5.6 %</td>
<td>7.2 %</td>
<td>5.2 %</td>
<td>9.9 %</td>
</tr>
<tr>
<td>Total</td>
<td>1 095 413</td>
<td>1 270 700</td>
<td>403 520</td>
<td>450 300</td>
</tr>
</tbody>
</table>

Source: ABS 2006e; 2009c.

Lending further weight to this finding is the substantial increase in the percentage of individuals who cited financial security as a factor influencing their retirement decision, with 39.6 per cent citing this as influential in 2008, compared to only 27.7 per cent in 2004-05 (Table 5.6). Nearly all other factors except the ‘other’ category have declined in importance. These results are not surprising as the GFC has effectively reduced superannuation assets by more than 20 per cent (Kelly 2009c).

Table 5.6: Factors Influencing the Retirement Decision – Persons in the Labour Force Aged 45 and Over who Intend to Retire

<table>
<thead>
<tr>
<th>Factor Influencing Decision to Retire</th>
<th>2004-05 %</th>
<th>2008-09 %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial security</strong></td>
<td><strong>27.7</strong></td>
<td><strong>39.6</strong></td>
</tr>
<tr>
<td>Personal health or physical abilities</td>
<td>24.9 %</td>
<td>20.5 %</td>
</tr>
<tr>
<td>Reaching the eligibility age for an age (or service) pension</td>
<td>12.3 %</td>
<td>13.0 %</td>
</tr>
<tr>
<td>Other†</td>
<td>8.2 %</td>
<td>12.4 %</td>
</tr>
<tr>
<td>Ability to access superannuation funds</td>
<td>7.9 %</td>
<td>5.5 %</td>
</tr>
<tr>
<td>Declining interest in work</td>
<td>6.1 %</td>
<td>3.1 %</td>
</tr>
<tr>
<td>Retirement of partner</td>
<td>3.0 %</td>
<td>2.2 %</td>
</tr>
<tr>
<td>Job too stressful or pressured</td>
<td>4.0 %</td>
<td>1.2 %</td>
</tr>
<tr>
<td>Ability to access other government pensions or benefits</td>
<td>2.0 %</td>
<td>1.0 %</td>
</tr>
<tr>
<td>Being retrenched or made redundant</td>
<td>1.3 %</td>
<td>0.8 %</td>
</tr>
<tr>
<td>Need to care for partner or family</td>
<td>2.7 %</td>
<td>0.6 %</td>
</tr>
<tr>
<td>Total Persons (excludes ‘don’t know’)</td>
<td>2 528 887</td>
<td>2 099 200</td>
</tr>
</tbody>
</table>

2008-09 ‘Other’ includes spouse/partner’s income, spend more time with partner/family, have more personal/leisure time which were not asked in 2004-05.

Source: ABS 2006e; ABS 2009c.
In the NWAHS, 10.8 percent of respondents had already retired, 55 percent were thinking about it or planning for it, 29.8 percent were not thinking about it and 4.5 percent were not intending to retire. However, as Table 5.7 shows, this varied by cohort and gender with those in the 1946-55 cohort being significantly more likely to be retired compared to members of the 1956-65 cohort who were more likely to have not thought about retirement or to not know when they would retire. Consistent with the literature discussed above, females were significantly less likely to know when they would retire, or to have thought about it, and less likely to be planning for it.

<table>
<thead>
<tr>
<th>Table 5.7: Stage of Retirement by Each Baby Boomer Age Cohort and by Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>1946-55 Cohort - aged 51-60 - %</td>
</tr>
<tr>
<td>---------------------------------</td>
</tr>
<tr>
<td>Not thinking about it/don’t know</td>
</tr>
<tr>
<td>Thinking about/planning for it</td>
</tr>
<tr>
<td>Already retired</td>
</tr>
<tr>
<td>Not going to retire</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

*p<0.05; **p<0.001
Source: NWAHS TFU Survey 2 (CATI), 2007

5.4 The Propensity to Plan

Wellbeing in retirement is dependent on a range of factors such as wealth, health, choice in the timing of retirement, and adaptation to the psychological and social changes consequent on retirement (Quick and Moen 1998; de Vaus and Wells 2004; Schellenberg et al. 2005; Quine et al. 2007). Previous research has demonstrated a relationship between pre-retirement planning and a variety of retirement outcomes including health, adjustment to retirement, positive attitudes to retirement, and life satisfaction (Noone et al. 2009). Quick and Moen (1998) found that better quality of life was experienced by those who actively planned for retirement, even after controlling for health and income, while Noone et al. (2009) found that both financial and non-financial planning were the two largest contributors to satisfaction in retirement after taking health status, reason for retirement, and income into account. De Vaus and Wells (2004:3) found that attending a retirement planning course was associated with more positive changes in wellbeing after retirement, but noted that it was unclear whether the
course itself was the key factor or ‘... whether people who go to courses are better adjusted to the idea of retirement than those who do not attend’. Although past research on retirement planning has focused primarily on financial planning, in recent years increased attention has been given to the importance and relevance of non-financial planning (Denton et al. 2001; de Vaus and Wells 2004; Schellenberg et al. 2005; Noone et al. 2009). Hence, in this section, the propensity of baby boomers to plan is examined in both domains. Respondents were asked ‘how much thought they had given to later life preparation’, whether they ‘had sought, or would seek, advice on retirement/later life’, ‘what sort of advice they would seek’ and their ‘reasons for not seeking advice’.

5.4.1 Thought Given to Later Life

Although Figure 5.2 shows that just under half of all respondents had given little to no thought to preparing for retirement this varied by gender and cohort, with females (.016), and those in the 1956-65 cohort (.000), being significantly less likely to have thought about retirement.

![Figure 5.2: Thought Given to Retirement – Baby Boomers 1946-1965](source)

Figure 5.3 shows that most at-risk groups were significantly less likely to have thought about retirement than mainstream groups. Not surprisingly, non-planners were the least likely to have done so. By contrast, the propensity of the depressed to think about later life preparation was similar to that of their mainstream counterparts. This may or may not be positive a
thinking about retirement for this group might also be equated with worry or anxiety about retirement with some research suggesting that retirement related anxiety is associated with poorer outcomes (de Vaus and Wells 2004; Noone et al. 2009). Of those who had retired, nearly 60 percent had given retirement ‘moderate to a lot’ of thought. Among retirees, the characteristics associated with having thought about preparing for later life included having an income of more than $40,000 and being in a marital/de facto relationship. This is consistent with previous research reporting that those on higher incomes are more likely to plan for retirement (Lusardi and Mitchell 2007b). Equally, while being in a marriage type relationship does not guarantee that plans will be made, it does provide an environment in which plans are more likely to be considered, simply because it involves outcomes for two individuals (Noone et al. 2009). Retirees who were born in non-English speaking countries were significantly less likely to have given thought to retirement. There were no significant associations for gender or education in the retirees’ subgroup, however, the percentage of males, and the tertiary educated, who had thought about retirement was considerably higher than the percentage of females or those without tertiary qualifications.

**Figure 5.3: Thought Given to Preparing for Later Life – At-risk and Mainstream Subgroups**

*p*<0.05; **p*<0.001
Source: NWAHS TFU Survey 2 (CATI), 2007
5.4.2 Patterns of Advice-seeking

A high proportion of baby boomers would consider seeking some form of retirement advice (72 per cent) but the percentage who would seek non-financial advice was comparatively small (15.5 per cent). Figure 5.4 shows that patterns of advice-seeking varied between subgroups.

**Figure 5.4: Advice-seeking for Retirement/Later Life – At-risk and Mainstream Subgroups**

*Note: Based on multiple response question. Per cent=per cent of cases.
Source: NWAHS TFU Survey 2 (CATI), 2007*

The advice-seeking behaviour of the retired group was markedly different from all other groups. The majority of this group (66.5 per cent) had sought ‘no advice’ and only 30.9 per cent had sought ‘financial advice’ compared to 69.1 per cent of the not retired who ‘intended to seek advice’. The retired were also significantly less likely to have sought ‘non-financial advice’ (.004). There were no significant differences between the depressed/not depressed and couples/singles groups, however, there were marked differences between the high/low income and the planning/non-planning groups. Not surprisingly, both low income (.000) and non-planning groups (.000) were significantly less likely to seek ‘financial advice’ and more likely to seek no advice. However, while the percentage of low and high income groups who would seek ‘non-financial advice’ was similar, this was not the case for the planning and non-
planning groups. At 22.4 per cent, non-planners were significantly more likely (.003) to seek ‘non-financial advice’ than their planning counterparts of whom only 14.7 per cent would seek such advice. Further analysis of the non-planning group showed that those who would seek ‘non-financial advice’ had a higher proportion of widows and a much lower proportion of individuals with a tertiary qualification. In addition, they were more likely to be in receipt of a government pension (.003) or to be on a low income (.000). The percentage of all subgroups who sought both financial and non-financial advice was small and ranged from 6.2 per cent (low income) to 11.2 per cent (high income).

Although the percentage of the cohort interested in non-financial advice was comparatively small, this does not necessarily mean that non-financial preparation is considered unimportant. However, it may suggest that few perceive this aspect of retirement to require professional advice or, alternatively, it may mean that information about the availability and scope of such advice is inadequately disseminated, poorly targeted, or is perceived to be expensive. The fact that non-planners were significantly more likely than planners to consider seeking non-financial advice suggests that there is a need to provide affordable non-traditional planning services to assist those who may be under-resourced both financially and non-financially. This is underlined by the fact that non-planners who would seek non-financial advice had a higher proportion of widows, of individuals with secondary and trade/diploma qualifications and of low income earners and income support recipients. In this respect, recent research on healthy retirement outcomes has noted that programs designed to assist retirees ‘... need to be aware of special groups of individuals who may be at-risk of poor retirement adjustment ...’ and should focus on both financial and non-financial issues (de Vaus and Wells 2004:4).

Figure 5.5 shows that the majority of respondents who did not plan to seek advice felt they had everything under control. However, around 30 per cent said they were ‘too busy’, ‘didn’t know’ why they wouldn’t seek advice or felt there was no point in planning and around 23 per cent of respondents fell into the ‘other’ category. A substantial percentage of responses in the ‘other’ category can be grouped as follows: ‘a lack of financial resources’ (n=20); ‘not ready to think about retirement yet’ (n=20); and ‘poor health or injury’ (n=25). Numerically, each of these categories is on a par with the ‘too busy’ option. The majority of those who said health or injury were in the retired group while the majority of those who indicated they were not
ready yet or had inadequate financial resources were in the non-planning group. Two minor themes of interest included those who had reservations about using financial advisors (n=6) and female respondents who left retirement planning to their husband (n=10). The influence of unexpected life events was also evident with one respondent noting that: ‘Retirement was forced on me when my father was suddenly taken ill and I became his carer’, while another commented: ‘Didn’t give much thought to it ‘cause I thought I’d be in a different situation’.

**Figure 5.5: Reasons for Not Seeking Advice – Baby Boomers 1946-1965**

From Figure 5.6 it can be seen that mainstream groups were much more likely to say they had everything under control than their at-risk counterparts, who were over-represented in other categories. The most frequently nominated reason at-risk groups gave for not seeking advice was ‘there is not much point in planning’. This was particularly so for members of the depressed group who were more likely to choose this reason than the not depressed and who also had a much higher percentage in this category than other at-risk groups. However, the low income group was also more likely to say there was no point in planning while non-planners were significantly more likely than planners to say ‘too busy’, ‘don’t know’ and ‘other’. By contrast, the reasons mainstream groups gave for not seeking advice were distributed fairly evenly across categories. One exception to this is the planning group which had a much smaller percentage in the ‘too busy’ category (2.8 per cent). Conversely, the
percentage of non-planners in this category was extremely high (16.8 per cent) compared to all other mainstream and at-risk groups.

**Figure 5.6: Reasons for Not Seeking Advice**
– At-risk & Mainstream Subgroups

*p<0.05; **p<0.001
Note: Based on multiple response question. Per cent=per cent of cases. Excludes ‘other’ and ‘already sought advice categories’.
Source: NWAHS TFU Survey 2 (CATI), 2007

5.4.3 The Impact of Planning on Income Expectations

A series of cross tabulations was used to explore whether thinking about or planning for later life mediated the effect of other characteristics on income expectations for later life. Firstly, the expectations of planners who were depressed, on a low income or single were compared with the expectations of non-planners with these characteristics. The expectations of non-planners from the high income, not depressed and couples groups were then compared with those of planners who were on a low income, depressed, or single. The data presented in Figure 5.7 and Figure 5.8 suggest that having a planning orientation has a distinct impact on income expectations for later life regardless of subgroup membership. Figure 5.7 shows that at-risk groups with a planning orientation had considerably more confidence about their later life income than members of at-risk groups who did not plan.
Figure 5.7: The Impact of Planning on Income Expectations – At-risk Planners and At-risk Non-planners

Source: NWAHS TFU Survey 2 (CATI), 2007

Figure 5.8 shows that individuals in mainstream groups who did not plan had income expectations that were similar to those of at-risk groups who did plan. This suggests that thinking about or preparing for later life has a positive influence on income expectations regardless of the presence of other risk factors for a low income in later life. However, the data also suggest that planning, by itself, cannot fully compensate for the disadvantage that accrues from a low income, depression or being single.
5.4.4 A ‘Third Age’ for Everyone?

The increased living standards in developed countries and the development of a mass culture of consumerism means that the ability to construct individual lifestyle choices in later life is no longer limited to an elite (Laslett 1989; Gilleard and Higgs 2002). In the past, the elderly as a group were poor in comparison to those still in the workforce, as incomes for the majority were not sufficient to allow wealth to be accumulated (Gilleard and Higgs 2005). However, this is no longer the case and, as baby boomers stand on the threshold of retirement, they hold more wealth than any other age group (Kelly and Harding 2007). Although much of this wealth is held in the family home the very fact of home ownership enables significantly higher living standards in retirement and, although incomes may be smaller, outgoings are generally reduced (Gilleard and Higgs 2005). Thus many older people today are in a better position to make lifestyle and consumption choices than previous generations.

Overseas research suggests that there has been a steady rise in the consumption patterns of retirees over the last two decades, with Gilleard and Higgs (2005:10) noting that by the end of the 1990s ‘... the net consumer expenditure of retired couples frequently matched – and in some countries exceeded – that of couples who were still working ...’.
These changes to the context of retirement have made Laslett’s concept of the third age accessible to more people. However, integral to achieving the Third Age is the need to plan for it throughout life (Laslett 1989). The fact that just under half of baby boomers have given little thought to retirement suggests that while the concept of the Third Age may be well established, less attention has been given to the means of achieving it. Hence, despite the comparatively greater wealth of today’s older cohorts, the ability of baby boomers to construct their own lifestyle choices will be mediated by a range of factors and will vary considerably within the cohort. As noted earlier, wealth in the baby boomer cohort is highly skewed. In addition, it will become evident over the next few chapters that individuals in vulnerable subgroups, particularly those who do not own their own home, will have little opportunity to construct their own lifestyle choices and will be largely excluded from discretionary consumption. Indeed, the extent to which changing ideologies about responsibility for retirement may threaten the improved standards of living of older people is a question for serious consideration.

5.5 Later Life in Reflexive Modernity

Chapter 2 explained the significant social transformations which occurred in the second half of the twentieth century through the theories of reflexive modernity and individualisation, both of which draw attention to the increased emphasis on individual responsibility for all aspects of life. In relation to ageing, individuals are now encouraged to take personal responsibility for both financial and non-financial domains. Chapter 3 noted that in the non-financial arena the importance of individual responsibility is reflected in the emergence of positive or successful models of ageing in which the individual is perceived as having a greater capacity to influence outcomes in later life by adopting a healthy lifestyle (Rowe and Kahn 1997; Denton et al. 1998; Estes et al. 2003b). To identify the degree to which these models inform the way in which baby boomers construct their own role in the ageing process, respondents were asked to rate the extent to which they thought family history, lifestyle and attitude influenced later life outcomes. In order to obtain more detail about attitudes to lifestyle, which is central to the self-protection component, respondents were also asked to rate the extent to which they...
perceived five key protective factors as contributing to health and happiness in later life. These factors have been identified from the literature on positive and successful ageing and include regular exercise, good diet, healthy weight, good friends and a ‘curiosity and passion for life’ (Baltes and Baltes 1990; Rowe and Kahn 1998; Vaillant 2003). Figure 5.9 shows that most baby boomers considered attitude to be the most important influence followed by lifestyle and family history.

Figure 5.9: Importance of Attitude, Lifestyle and Family History – Baby Boomers 1946-1965

Source: NWAHS TFU Survey 2 (CATI), 2007

The fact that lifestyle and attitude were rated as more important than family medical history suggests that baby boomers considered their own actions and attitudes to be powerful influences on later life outcomes. Figure 5.10 shows that most baby boomers considered all five of the protective factors to be important, although it is not able that factors related to physical health were generally rated more highly than psychosocial factors such as friends and curiosity and passion in life. However, this was also mediated by gender with females being significantly more likely to consider friends (.000), and ‘a curiosity and a passion for life’ (.001) to be important than males.
These results suggest that baby boomers’ beliefs about the aging process have been influenced by research that has increasingly constructed aging as a potentially positive process over which the individual has some control rather than as a period of inevitable decline (Rowe and Kahn 1987; Vaillant 1990). This appears to be so for the majority of the cohort, although there was a general trend for the proportions attributing importance to all these factors to be a little higher in mainstream groups. The order in which attitude, lifestyle and family history were ranked at the cohort level (Figure 5.9) was replicated in each of the subgroups, however, low income (.001) and retired (.039) groups, were significantly less likely than their mainstream counterparts to consider lifestyle to be important while low income (.042), singles (.050) and non-planners (.025) were less likely to consider attitude to be important. Low income groups were also less likely (.046) to consider family history as important. Similarly, although high proportions of all groups considered healthy weight, regular exercise and good diet to play an important role in contributing to health and happiness in later life, those on a low income were less likely to consider these factors important than their mainstream counterparts. These results suggest that the proportion with a sense of agency in relation to influencing their own health outcomes is generally lower across at-risk groups but particularly for those on a low income.

Figure 5.10: Rating of Self-protection Factors – Baby Boomers 1946-1965

Note: ‘other’ = not important, slightly important or neutral
Source: NWAHS TFU Survey 2 (Postal/online), 2007
Attitudes, knowledge and beliefs about health have been shown to influence health behaviours and outcomes (Wardle and Steptoe 2003). In this sense they can also be regarded as an indicator of the extent to which individuals reflexively plan in relation to the self-protection domain of health. Table 5.8 shows a strong association between beliefs about the importance of key lifestyle factors and existing health status as measured by self-rated health, three or more chronic conditions and three or more risk factors. Those who considered exercise, good diet and healthy weight to be important were significantly less likely to have poor to fair self-rated health, to have three or more chronic conditions or to have three or more risk factors.

Table 5.8: Health Status and Beliefs/Attitudes to Lifestyle Factors

– Baby Boomers 1946-1965

<table>
<thead>
<tr>
<th>Health Status</th>
<th>Exercise</th>
<th></th>
<th>Diet</th>
<th></th>
<th>Healthy Weight</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Other %</td>
<td>Impt %</td>
<td>P Val</td>
<td>Other %</td>
<td>Impt %</td>
<td>P Val</td>
</tr>
<tr>
<td>Poor-Fair SR Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>41.4</td>
<td>18.2</td>
<td>.000</td>
<td>34.3</td>
<td>19.4</td>
<td>.039</td>
</tr>
<tr>
<td>Good-Ex SR Health</td>
<td>58.6</td>
<td>81.8</td>
<td></td>
<td>65.7</td>
<td>80.6</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>722</td>
<td>31</td>
<td>750</td>
<td>40</td>
<td>741</td>
</tr>
<tr>
<td>&gt;= 3 Chronic Conditions</td>
<td>22.5</td>
<td>6.5</td>
<td>.000</td>
<td>25.2</td>
<td>7.0</td>
<td>.000</td>
</tr>
<tr>
<td>&lt;3 Chronic Conditions</td>
<td>77.5</td>
<td>93.5</td>
<td></td>
<td>74.8</td>
<td>93.0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>664</td>
<td>28</td>
<td>691</td>
<td>35</td>
<td>685</td>
</tr>
<tr>
<td>&gt;=3 Risk Factors</td>
<td>75.4</td>
<td>34.3</td>
<td>.000</td>
<td>73.0</td>
<td>36.0</td>
<td>.000</td>
</tr>
<tr>
<td>&lt;3 Risk Factors</td>
<td>24.6</td>
<td>65.7</td>
<td></td>
<td>27.0</td>
<td>64.0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td>601</td>
<td>22</td>
<td>624</td>
<td>28</td>
<td>618</td>
</tr>
</tbody>
</table>

Note: Other = not important, slightly important or neutral; Impt = important or very important
Source: NWAHS Stage 2, 2004-2006; TFU Survey 2 (Postal/online), 2007

Although poor health may itself lead to fatalistic views that inhibit the adoption of more positive lifestyles, a UK study, which took this factor into account, showed that the likelihood of adopting a positive lifestyle is influenced by chance locus of control13, future salience14 and

13 Chance locus of control refers to a belief that health is more influenced by chance or external factors than by an individual’s own actions (Wardle and Steptoe 2003:440-441).
14 Future salience refers to the extent to which thinking about the future influences motivations to maintain a healthy lifestyle with those who think little about the future being less motivated (Wardle and Steptoe 2003:440-441).
having a conscious awareness of the impact of lifestyle on health, and that these in turn are influenced by socio-economic status and class (Wardle and Steptoe 2003). Although the cross sectional nature of the analysis undertaken in this thesis means that causality cannot be determined, it is clear that, regardless of whether disempowering views are due to social location or ill-health, there would be benefits in targeting those who hold beliefs that discourage the adoption of positive lifestyles.

Although the majority of baby boomers appear to have embraced the principles embedded in models of positive or successful ageing, there is a notable gap between beliefs about the importance of healthy lifestyles and actual lifestyle behaviours. Table 5.9 contrasts the proportion who believed each of the five protective factors to be important with a measurement of lifestyle behaviour related to each factor.

<table>
<thead>
<tr>
<th>Percentage Believing Factors to be Important</th>
<th>%</th>
<th>Actual Lifestyle</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise</td>
<td>92.3</td>
<td>Sufficient Physical Activity*</td>
<td>35.4</td>
</tr>
<tr>
<td>Good diet</td>
<td>96.0</td>
<td>Average serves of vegetables per day</td>
<td>2.68</td>
</tr>
<tr>
<td>Healthy weight</td>
<td>94.8</td>
<td>Healthy Weight – WHO BMI &lt;=25</td>
<td>25.3</td>
</tr>
<tr>
<td>Curiosity/Passion in Life</td>
<td>88.3</td>
<td>Pursues hobbies or interests</td>
<td>74.4</td>
</tr>
<tr>
<td>Friends/social engagement</td>
<td>86.9</td>
<td>Dissatisfied with socialising</td>
<td>42.8</td>
</tr>
</tbody>
</table>

*Note: Sufficient Activity equals a total of 150 minutes accrued over at least five sessions.
Source: NWAHS TFU Survey 2 (Postal/online), 2007

This gap suggests two possible issues. Firstly, there is a lack of knowledge about what constitutes a lifestyle that will lead to positive ageing and secondly, those who know what constitutes such a lifestyle find it difficult to put into practice. Although the percentage of baby boomers nominating lack of knowledge (9 per cent) as a constraint to the adoption of a positive lifestyle was small in comparison to the percentage nominating other constraints, this does not mean that knowledge should be excluded as an issue. Indeed, the distinct contrast between perceived weight and clinically assessed weight status (Table 5.10) is a case in point.
and suggests that the knowledge held by an individual is mediated by a range of non-factual elements such as social norms and gender. As Table 5.10 shows, of those who thought they were a normal weight, 43.5 per cent were classified as overweight or obese while 36 per cent who thought they were a little overweight were classified as obese. Comparatively few perceived their weight as being less than their clinically assessed BMI. When using the BMI measure the accurate perception of weight differed by gender; females’ perceptions of overweight and normal were more likely to accord with clinic measurements while males who were clinically classified as overweight were more likely to think their weight was normal.

Table 5.10: Self-perceptions of Normal Weight v Clinically Assessed Weight – Baby Boomers 1946-1965

<table>
<thead>
<tr>
<th>Clinic weight status of those who consider weight normal</th>
<th>Male %</th>
<th>Female %</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight (BMI &lt;18.50)</td>
<td>0</td>
<td>4.1**</td>
<td>2.1</td>
</tr>
<tr>
<td>Normal (BMI 18.50-24.99)</td>
<td>38.0</td>
<td>70.1**</td>
<td>54.5</td>
</tr>
<tr>
<td>Overweight (BMI 25-29.00)</td>
<td>55.1</td>
<td>23.5**</td>
<td>38.9</td>
</tr>
<tr>
<td>Obese (BMI &gt;=30)</td>
<td>6.9</td>
<td>2.3</td>
<td>4.6</td>
</tr>
<tr>
<td>Total</td>
<td>139</td>
<td>146</td>
<td>286</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Clinic weight status of those considering themselves a little overweight</th>
<th>Male %</th>
<th>Female %</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight (BMI &lt;18.50)</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal (BMI 18.50-24.99)</td>
<td>6.0</td>
<td>14.0*</td>
<td>9.8</td>
</tr>
<tr>
<td>Overweight (BMI 25-29.00)</td>
<td>57.6</td>
<td>50.3</td>
<td>54.1</td>
</tr>
<tr>
<td>Obese (BMI &gt;=30)</td>
<td>36.3</td>
<td>35.7</td>
<td>36.0</td>
</tr>
<tr>
<td>Total</td>
<td>262</td>
<td>240</td>
<td>502</td>
</tr>
</tbody>
</table>

*p=<.05; **p=<.001

Source: NWAHS Stage 2, 2004=2006; NWAHS TFU Survey 2 (CATI), 2007

However, as shown in Table 5.11, when waist circumference is used as the measure to compare actual healthy weight with perceived weight there are no significant gender differences. In fact, when using waist circumference as the measure, the percentage of females with an accurate perception of their weight decreases while that of males increases. This is probably to do with the fact that males generally have more muscle mass, hence, using BMI as the measure may distort genuine differences (Gill et al. 2003). However, whichever measure is used, it is clear that baby boomers’ perceptions of their weight frequently do not accord with measures recommended by health authorities. Although knowledge about healthy
Lifestyles remains an issue, Chapter 6 will show that baby boomers place greater importance on the constraining effect of a range of other factors.

Table 5.11: Self-perceived Weight v Clinically Assessed Weight by Waist Circumference – Baby Boomers 1946-1965

<table>
<thead>
<tr>
<th>Clinically assessed waist circumference of those who think they are normal weight</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy range – men &lt;95cm; women &lt;80cm</td>
<td>59.9%</td>
<td>63.9%</td>
<td>62.0%</td>
</tr>
<tr>
<td>Unhealthy range – men =&gt;95cm; women =&gt;80cm</td>
<td>40.1%</td>
<td>36.1%</td>
<td>38.0%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>139</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>145</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>284</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: NWAHS Stage 2, 2004=2006; NWAHS TFU Survey 2 (CATI), 2007

The pervasive message disseminated by researchers, the media, and government is that the adoption of healthy lifestyles will result in a positive ageing process rather than one characterised by inevitable decline (Rowe and Kahn 1997; DOHA 2001; Vaillant and Mukamal 2001). It is not surprising, therefore, that nearly all baby boomers believed that their actions and lifestyle played an important part in their capacity to age well, however, just over half felt they were not doing enough to maintain or improve their physical health. For some, this gap between ideal and actual lifestyle is likely to cause a high degree of cognitive dissonance and could undermine confidence and self-esteem, both of which are important dimensions of ageing well (Rowe and Kahn 1997). The increased emphasis on personal responsibility and agency typical of reflexive modernity introduces an element of psychological stress into the act of growing older, which was not present for previous generations who grew old in a paradigm that cast ageing as a process of inevitable decline.

5.6 Reflexive Planning in the Self-protection Domain

Giddens (1990) theorised that one way in which individuals would manage the more precarious and individualised nature of life under conditions of reflexive modernity would be to engage in ‘reflexive life planning’, an activity that is characterised by constant monitoring and adaptation of activity with a view to its future consequences. The precariousness of modern life comes, in part, from increased emphasis on individual
responsibility that has occurred in tandem with a reduction in the risk protection that was once provided by the welfare state, the community, and family. This poses particular risks for later life, a time when resources are likely to diminish, and vulnerability to increase, across a range of domains. One aim of this study was to ascertain the extent to which baby boomers strategically positioned themselves for later life by engaging in reflexive life planning. In the context of self-protection this relates to the extent to which they gave conscious consideration to reducing the risk of poor outcomes in later life by developing and maintaining the non-financial resources they would need to sustain their health and wellbeing. Hence, respondents were asked whether they had made changes to key life domains with a view to improving or maintaining their health and wellbeing as they grew older. These domains included exercise, eating habits, work, leisure, social activities and living arrangements as summarised in Figure 5.11.

**Figure 5.11: Changes Made to Key Lifestyle Domains – Baby Boomers 1946-1965**

The most changes were evident for diet and exercise, reflecting behaviours that are consistent with the attitudes and beliefs about ageing discussed earlier. Around 72 per cent had made, or were planning to make, changes to diet and around 74 per cent in relation to exercise.
However, 45 to 55 per cent had also made, or intended to make, changes to leisure/hobby activities, social life, and work, suggesting that some baby boomers were beginning to look forward to a life that would be less dominated by work. Only 18.5 per cent had made changes to living arrangements and only another 11 per cent intended to make changes. This suggests that some had already moved in anticipation of retirement and later life but that the majority intended to age in place in a familiar community.

Although, in most respects, at-risk groups did not differ markedly from the mainstream, several trends were evident. Distinct differences emerged for singles and couples in the living arrangement and social domains with singles being more likely than couples to have already made changes to living arrangements, to be planning future changes to living arrangements, and to be planning changes to their social lives. Singles who weren’t planning changes to their social life or living arrangements were less likely than couples to say this was because they were happy with the way things were and more likely to say it was too difficult to make changes. Unlike singles, the depressed were no more likely to have made changes or to have planned changes to social life or living arrangements than the rest of the population but those who had not planned any changes were, significantly more likely than the mainstream to say it was too difficult to make changes. A second trend relates to work; at-risk groups who were not planning to change their work arrangements were significantly less likely than mainstream groups to say this was because they enjoyed their work. In addition, the depressed group had the highest percentage of any group to have already made changes to their work or to intend to make changes. Differences in plans to improve exercise levels were primarily present for the non-planning, low income and retired groups. Non-planners were less likely than planners to have made changes to exercise, and non-planners, those on a low income, and the retired, were all less likely than the mainstream to be planning to make changes in the future.

Although significant differences between mainstream and at-risk groups were few, there was a trend for mainstream groups to be somewhat more proactive about making positive changes. One exception to this is the singles group whose greater likelihood of making changes in the living arrangement and social domains suggests an awareness of their greater vulnerability in relation to social support and social interaction. Also notable is the trend, evident in most
life style domains, for at-risk groups to be more likely to say they are not making changes because they find it too difficult, with this being consistent with the higher percentages who nominated constraints to making changes (Chapters 6 and 7).

The extent to which baby boomers reported they were making changes to key lifestyle domains seems reasonably positive, with the data presented in Table 5.12 suggesting that a substantial percentage was demonstrating a strategic approach to later life through the adoption of more positive lifestyles, at least in relation to physical health. However, as Table 5.13 and Figure 5.12 show, even in the most proactive groups - those who had made changes to, or who believed their exercise levels and diet had always been good - there was a considerable percentage who still did not meet recommended physical activity levels, few who met recommended requirements for fruit intake (2 portions per day), and none who met requirements for vegetable intake (5 portions per day).

Table 5.12: Changes to Physical Activity and Diet to Maintain or Improve Health – Baby Boomers 1946-1965

<table>
<thead>
<tr>
<th>Plans to Make Changes Made or Plans to Make Changes</th>
<th>Exercise %</th>
<th>Diet %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes made in last 5 years</td>
<td>54.1</td>
<td>64.3</td>
</tr>
<tr>
<td>Intend to make changes</td>
<td>20.2</td>
<td>7.1</td>
</tr>
<tr>
<td>No plans to make changes</td>
<td>25.6</td>
<td>28.7</td>
</tr>
<tr>
<td>Total</td>
<td>783</td>
<td>768</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reasons for Not Making Changes</th>
<th>Exercise %</th>
<th>Diet %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diet and exercise levels already good - no need to make changes</td>
<td>9.9</td>
<td>18.1</td>
</tr>
<tr>
<td>Too difficult to make changes/other</td>
<td>1.9</td>
<td>3.1</td>
</tr>
<tr>
<td>Not asked</td>
<td>88.1</td>
<td>78.8</td>
</tr>
<tr>
<td>Total</td>
<td>753</td>
<td>762</td>
</tr>
</tbody>
</table>

Source: NWAHS TFU Survey 2 (Postal/online), 2007
Table 5.13: Changes Made/Plans to Make Changes v Actual Diet
– Baby Boomers 1946-1965

<table>
<thead>
<tr>
<th>Changes made to diet</th>
<th>Fruit Intake</th>
<th>Vegetable Intake</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes made in last 5 years</td>
<td>1.77 (SD:.975)</td>
<td>2.81 (SD:1.37)</td>
<td>493</td>
</tr>
<tr>
<td>Intend to make changes</td>
<td>1.76 (SD:.975)</td>
<td>2.79 (SD:1.38)</td>
<td>54</td>
</tr>
<tr>
<td>No plans to make changes</td>
<td>1.89 (SD:1.14)</td>
<td>2.74 (SD:1.75)</td>
<td>220</td>
</tr>
<tr>
<td>Diet and exercise already good</td>
<td>2.06 (SD:1.18)</td>
<td>3.17 (SD:1.60)</td>
<td>138</td>
</tr>
<tr>
<td>Too difficult to make changes</td>
<td>1.96 (SD:1.06)</td>
<td>3.06 (SD:1.45)</td>
<td>24</td>
</tr>
</tbody>
</table>

Source: NWAHS TFU Survey 2 (Postal/online), 2007

Figure 5.12: Actual Physical Activity Levels by Attitudes to Making Changes
– Baby Boomers 1946-1965

5.7 Conclusion

This chapter has shown that the propensity to plan differs significantly within the cohort with at-risk groups being less likely to have thought about later life or to have obtained advice. Although few would consider obtaining non-financial advice, non-planners were markedly more likely to seek this type of advice than other subgroups. The results also suggest that
consciously planning for later life has a positive impact on income expectations, regardless of subgroup membership. Baby boomers appear to be strongly influenced by models of positive ageing with most believing that healthy lifestyles and attitude play a key role in influencing later life outcomes, in this sense, they have taken on board the notion of individual responsibility. However, there is also evidence to suggest that many baby boomers find it difficult to translate their beliefs into action and the resultant gap between ideal and actual lifestyle may have negative repercussions for objective health and self-esteem and confidence, particularly if they do not age in the way they hope or expect. The results in Section 6 of this chapter suggest that a substantial proportion of baby boomers are reflexively planning for later life, in the sense that they monitor their lifestyles and have either made changes or intend to make them. However, this is primarily evident in relation to physical domains with smaller proportions carrying this through to psychosocial domains. Some at-risk groups are less likely to believe in the importance of lifestyle and, in general, they find it more difficult to make changes. Although most baby boomers appear to look forward to retirement their expectations and intentions are mediated by gender and socio-economic status. In addition, ABS data suggests that attitudes to working longer are changing in response to the financial insecurity generated by the GFC. The following chapter considers the health resources of this cohort as this is a primary element of self-protection and will underpin their capacity to fulfil their need or desire to work longer, to remain actively engaged and to enjoy later life.
Chapter 6: How Healthy are Baby Boomers?

Health care is an important determinant of health. Life styles are important determinants of health. But it’s factors in the social environment that determine access to health services and influence lifestyle choices in the first place.

Dr. Chan, Director General of WHO (Friel 2009:8)

6.1 Introduction

This chapter explores the health resources available to baby boomers from the perspective of public protection, self-protection and self-insurance. It describes the health resources they are likely to have in later life based on their health status at the time data was collected, the extent to which they take out private health insurance, and the effectiveness of publicly provided health care. Section two contextualises the health of baby boomers with reference to the current social and economic environment while Section three discusses the current policy framework for health. Section four examines health status by cohort and gender while Section five provides a more detailed analysis of the chronic conditions that are likely to have a key impact on baby boomers in the future. In Section six the analysis is deepened by examining how health resources differ between subgroups and by identifying the factors baby boomers perceive as constraints to the adoption of healthy lifestyles. Section seven examines the extent to which baby boomers self-insure by taking out private health cover.

6.2 The Current Socio-economic Context for Health

Government health spending in Australia is expected to grow from 4 per cent of GDP in 2009-10 to 7.1 per cent of GDP by 2049-50 (Treasury 2010a). Historically, the main drivers for increased health expenditure have been non-demographic factors such as the increasing utilisation of services at any age and the growth of expensive medical technologies and pharmaceuticals (Productivity Commission 2005). However, while population ageing has as
been only a small factor in rising health expenditure, there are still compelling arguments for the development of effective health prevention strategies. First, even though the proportion of disability prevalence may remain constant, as population ageing gains momentum there will be a significant growth in the number of older people with disability. This will result in an increased demand for expensive medical technologies that allow chronic conditions to be managed so they are not disabling (Productivity Commission 2005). In addition, it has been shown that public expenditure on older people is around three times higher per head than expenditure on the young, hence there remains a need to develop policies to mitigate the effects of societal ageing (Hugo 2001).

Although it is frequently assumed that baby boomers will have better health than previous generations, these assumptions are rarely based on evidence from empirical studies but tend to be predicated on the basis of general social changes such as higher education levels, more advanced health technologies, greater knowledge about health, improved living standards and longer life expectancies (DOHA 2001; Knickman and Snell 2002; Baltes 2003; Hardy 2006). Indeed much of the optimism in relation to health appears to arise from an awareness of the potential for good health through altering behaviours that threaten health or through medical technologies that alleviate disability and chronic disease (Blanchette and Valcour 1998; DOHA 2001; Hugo 2003). However, as Chapter 5 has shown, baby boomers’ awareness of the importance of health does not necessarily result in the adoption of healthy lifestyles. In fact, baby boomers are currently the most obese group in Australia (Cameron et al. 2003; Adams et al. 2008), which creates the potential for considerable increases in diabetes, heart disease, dementia and other chronic conditions such as arthritis (Hugo et al. 2008). Indeed, the majority of health service visits in this cohort are related to conditions arising from the social and lifestyle changes occurring over the last 50 years (Prime Minister’s Science Engineering and Innovation Council 2003). This is further confirmed by data from the Australian National Health Survey (NHS) (ABS 2006c), which shows that in 2004-05 nearly a quarter of baby boomers born 1951-1960 were current smokers, 15.6 per cent used alcohol at risky or very risky levels, 72.8 per cent were sedentary or had low levels of exercise and 55.6 per cent were overweight or obese. Survey results further suggest that the prevalence of some lifestyle risk factors has also increased over time for this cohort (ABS 2006c). Although
smoking rates had decreased slightly between 1995 and 2005, the prevalence of risky alcohol use and obesity had almost doubled. Only 16.4 per cent of baby boomers in the 2004-05 NHS consumed the recommended serves of vegetables per day and while fruit consumption was somewhat higher, there was still a substantial percentage who consumed less than the recommended number of daily serves (44.1 per cent).

The health advances of the 20th century have occurred in tandem with the development of significant lifestyle changes that may well erode some of the gains made to date (Buckley 2008) (Appendix 4.1), hence there is growing concern that the trend to longer life expectancies may start to reverse (National Preventative Task Force, 2009; Olshansky et al. 2005) or, alternatively, be accompanied by an expansion of morbidity in which the additional years of life may be characterised by significant disability (Gregg and Guralnik 2007; Iezzoni and Freedman 2008). Current evidence regarding the compression or expansion of morbidity is ambiguous, with debates in this area frequently being informed by disability prevalence as much as morbidity rates (Fries 2003; AIHW 2006; Mathers 2007). However, disability prevalence is influenced by a range of factors apart from morbidity such as better treatment, early detection of the disease and better management of the disease process (Mor 2005). Hence, although often conflated, apparent reductions in disability do not necessarily equate with equally significant reductions in actual morbidity. While medical technology and better management of the disease process might well reduce the disability consequent on disease, and hence reduce costs associated with compensating for disability, there are still inherent costs associated with the management of increased morbidity. In addition, the prevalence rates for disability are also affected by how disability is defined, the accuracy of self reports and the extent to which disability is ameliorated by compensatory supports of a technological, social or environmental nature. It is, therefore, important that reductions in disability prevalence are not used to provide a false sense of security about changing patterns in population health. In short, the main aim should continue to be the prevention of chronic disease in the first place rather than the delaying of the onset of disability. Findings from several international studies suggest that there has been a reduction of up to two per cent in disability prevalence in the older population over the last few decades (Fries 2003; Mor 2005). However, there is no consistent evidence of either the compression or expansion of morbidity.
in the Australian population, though there is some slight indication of expansion (in relative terms) in relation to less severe disability (AIHW 2006; Mathers 2007). Given the economic and personal costs associated with managing chronic conditions and disability, there is an urgent need to implement a health policy framework capable of managing the health challenges implicit in structural ageing.

A detailed knowledge of baby boomers’ health, and the generation of realistic projections of future health status, forms an essential underpinning for policy development across a range of domains. Equally, it is important to understand how current health has been constituted and the extent to which future health outcomes can be improved through the adoption of lifestyle changes and the creation of healthier environments. Without change in these areas it is likely that many of the health gains of the 20th century will remain stationary or, in fact, reverse, as Mor (2005:S309) notes:

…unless the health habits of the baby boomers change dramatically, future researchers may be trying to explain the cohort effect that found a short-lived reduction in the duration of age-related functional impairment.

6.3 The Current Health Policy Framework

Australia has a universal health care system that aims to provide all Australians with access to ‘... adequate health care at an affordable cost or no cost’ (AIHW 2010a:10). Health policy is framed by the recent National Healthcare Agreement and National Partnership Agreements on: Preventive Health; Hospitals and Health Workforce Reform (including Taking Pressure off Public Hospitals); Closing the Gap in Indigenous Health Outcomes; and Closing the Gap, Indigenous Early Childhood Development. The health system is currently undergoing significant reform with several major national reports being issued in 2009/2010 including: the National Primary Health Care Strategy (2010), the National Health and Hospitals Reform Commission (2009), and the National Preventative Health Strategy (2009). These reports contain a range of recommendations which, if implemented, may result in significant changes
to the health system (AIHW 2010a); however, in this study, the overview of Australia’s health system focuses primarily on the system as it was in early 2010.

Key components of the public provision of health care include: Medicare; the Pharmaceutical Benefits Scheme (PBS); the funding of public hospital services, and the provision of a range of community and public health services. Medicare provides free access to hospital treatment received through emergency and outpatient departments and for inpatient treatment for public patients. It also provides substantial subsidies for out-of-hospital treatment by general practitioners and specialists\(^\text{15}\) (AIHW 2010a). Subsidies through the PBS mean that general patients pay up to $33.30 per prescription and concessional patients, including holders of a Pensioner Concession or Senior’s Health Care card, pay up to $5.40 for each prescription (AIHW 2010a).

Although the public health system aims to provide adequate care at no or affordable cost, it is currently under considerable strain. One indicator of this is the unacceptably long waiting times for elective surgery (AIHW 2010b). These have a particularly negative effect on older people for whom excessive waiting times for procedures such as hip and knee replacements may have significant repercussions on multiple life domains. In addition, out-of-pocket expenses can pose a significant financial burden on individuals with chronic or complex health problems who require more frequent or specialised medical attention. Equally, the public system provides little coverage for allied health services. Timely use of these services can have a positive effect on quality of life and overall wellbeing as well as delay the onset of more serious problems. Although optometry services are provided there is negligible public provision of other allied health services such as dentistry, audiology, physiotherapy, and podiatry. The poor availability of public dental care is a case in point with this resulting in potentially unnecessary extractions or complex procedures (Luzzi et al. 2009) and contributing to poor oral health with associated social impacts such as pain, food avoidance and reduced social contact (ACOSS 2006). In this respect, Australia performs poorly in comparison with

\(^\text{15}\) 85 to 100 percent of the scheduled fee for GP consultations and 85 percent for specialists (AIHW 2010a).
other OECD countries, with a ranking in the bottom third for oral health (ACOSS 2006). Equally, older Australians have poor access to treatment for hearing loss. Although those over 65 represent half of the population with hearing loss they ‘… receive less than one third of the health system expenditure’ (Access Economics 2006b:53). Government assistance for managing hearing loss is restricted to those holding a Pensioner Concession Card but does not extend to holders of Health Care Cards (DOHA 2010a). This means that for a substantial number of mid-age and older people on low incomes, the cost of hearing devices, (around $2,500 per device) is prohibitive (National Seniors Australia 2010). The need for allied health services is likely to increase with age and poor public provision in these areas disproportionately disadvantages older people.

One way in which the Government attempts to manage the gaps in the public system is through supporting private sector health provision and encouraging the take-up of private health insurance (PHI) through a carrot and stick approach. Relevant policies include the provision of rebates to assist individuals to purchase PHI (ABS 2006d), a 1 per cent Medicare surcharge applied to those on high incomes16 who do not take out PHI (DOHA 2009), and Life Time Health Cover17, which was introduced in 2000 (Temple 2006). The principal rationale for supporting private sector provision is that it takes the pressure off the public hospital sector and provides individuals with greater choice (Paolucci et al. 2008). However, the extent to which either of these outcomes is genuinely achieved is highly contested with some arguing that the costs of policy incentives to encourage uptake of PHI outweigh the savings (Richardson 2005, 2009; Paolucci et al. 2008; Pratt, 2005; Macintosh 2007; Colombo and Tapay 2003). Equally, real choice through PHI is constrained by: the use of a preferred provider system in which the use of non-approved providers attracts a lower benefit; the proliferation of products both within and across funds, as this makes comparison difficult if not impossible (Colombo and Tapay 2003); and the limited availability of approved

16 The Medicare surcharge applies to singles on $73,000 or more and couples on $146,000 or more – 2009-10.

17 Under Life Time Health Cover individuals who take out private hospital cover after age of 31 pay a 2 percent loading on their premium for each year they delay, up to a maximum of a 70 percent loading (Temple 2006).
providers, particularly in rural areas (Natalier and Willis 2008). Despite these shortcomings, PHI provides considerable benefits including choice of specialist when in a private hospital, avoidance of lengthy waiting times for medical procedures, and reduced out-of-pocket expenses when using allied health practitioners.

Other mechanisms designed to alleviate gaps in the public provision of health care include the provision of additional assistance to those on low incomes, through concessional health care cards, and exemption from the Medicare Levy. A third mechanism is the use of safety nets to ensure that out-of-pocket medical and pharmaceutical expenses are further reduced once a certain threshold has been reached (AIHW 2010a:392). A fourth mechanism is the recent addition of allied health services to the Medicare Benefits Schedule. However, coverage under these items is governed by strict eligibility requirements and is targeted at those who already have significant health problems or complex care needs. In addition, individuals can only claim for five allied health service visits per year (Australian Government 2009).

The capacity of these strategies to ensure equitable access to health care is limited. Effectively, ongoing policy support for private sector health provision creates a two-tiered health system, as those who can afford comprehensive PHI have better and more timely access to a wider range of medical services. Although government rebates make PHI more affordable, research suggests that the PHI rebate delivers a ‘... disproportionate benefit to high-income earners …’ (Denniss 2005: 5; Banks et al. 2009), and that those most likely to have PHI are ‘richer, better educated, more health conscious, in better health and more likely to use certain discretionary health services’ (Banks et al. 2009:1). The emphasis on PHI has implications for equity, with only 25 per cent of the poorest 20 per cent of the Australian population having PHI compared to 80 per cent of the wealthiest 20 per cent (Menadue, 2007). In addition, there is little benefit to be had from PHI for those in rural and remote communities where private hospitals and other health services are in short supply (Natalier and Willis 2008). Mechanisms such as safety nets, and increased subsidies for concession card holders, may minimise out-of-pocket expenses for those who can least afford to pay but they do little to ensure equitable access to more comprehensive health care.
6.4 Baby Boomers – Mid-life Health Status

The analysis of chronic conditions and risk factors in this chapter is based on clinical and doctor confirmed self-report data from the NWAHS. Chronic conditions include: diabetes, stages 3 and 5 kidney disease, osteoporosis, arthritis, cardiovascular disease, chronic obstructive pulmonary disorder (COPD), psychological wellbeing, depression, and self-reported mental health. Risk factors include: Body Mass Index (BMI), waist-hip ratio, cholesterol, blood pressure, impaired fasting glucose (IFG), smoking status, physical activity, and alcohol use. A detailed description of the clinical parameters of the variables used in the analysis is contained in Appendix 4.2. All of the chronic conditions, except for kidney disease and COPD, have been designated national health priority areas due to their significant contribution to the national burden of disease (AIHW 2010a).

Chapter 5 identified significant social and demographic differences between the 1946-55 and 1956-65 cohorts, and, as these differences have the potential to affect health, separate analyses were conducted for older (1946-1955) and younger (1956-1965) cohorts, as well as for gender and across the wider cohort as a whole. Identifying differences between the cohorts is also necessary to ensure that interventions are appropriately tailored to their different health needs. These analyses are cross sectional and do not attempt to identify causality, as the main purpose is to describe the cohort’s health.

6.4.1 Chronic Conditions

As shown in Figure 6.1 members of the 1946-55 cohort were significantly more likely to have conditions commonly associated with ageing, such as arthritis, diabetes, COPD, kidney disease cardiovascular disease and osteoporosis.
There were also distinct gender differences across the whole cohort with males having a greater proportion of cardiovascular disease and diabetes, and females having a greater proportion of all other conditions (Figure 6.2). Females were significantly more likely to have COPD \( (.010) \), arthritis \( (.022) \), kidney disease \( (.001) \), and doctor confirmed self-reported osteoporosis \( (.012) \). Although not shown in Figure 6.2, females were also more likely to have moderate to severe depression \( (.008) \) and a self-reported mental health condition \( (.009) \) (Appendix 4.4). Although males were less likely to report osteoporosis, clinic data from the DEXA scan contrasts markedly with self-report data, with 8 per cent of men being clinically diagnosed with osteopenia compared to 4.9 per cent of women, and .8 per cent of men being diagnosed with osteoporosis compared with .3 per cent of women, suggesting that osteopenia and osteoporosis may be under-diagnosed amongst baby boomer males. Significant gender differences for most of the conditions shown in Figure 6.2 occurred primarily in the 1946-55 cohort with the only significant gender differences in the 1956-65 cohort being for moderate to severe depression and a self-reported mental health condition (Appendix 4.6).
It is interesting to note that in both cohorts the percentage of females with COPD was around double that of males with this approaching significance (.061) and reflecting a different gender pattern to that generally found in the 65+ population (AIHW 2008:203). The most prevalent chronic conditions among female baby boomers in this study were musculoskeletal, mental health conditions and chronic respiratory diseases all of which contribute more to morbidity and disability than they do to mortality (AIHW 2008: 55). By contrast, cardio-vascular disease, one of the conditions most prevalent among males, contributes more to the fatal component of the burden of disease (28.9 years of life lost due to death (YLL) compared to 7.7 years lost due to disability (YLD) (AIHW 2008:55). Males also had a higher prevalence of diabetes to which a substantial proportion of coronary heart disease and stroke are attributable (AIHW 2008). Although males were more likely to suffer from potentially fatal conditions, females in this study showed a higher prevalence of chronic conditions overall. The gender differentiation in chronic conditions illustrated by these data is consistent with gender patterns of disability burden reported in national health publications (AIHW 2008).
6.4.2 Risk Factors

Figure 6.3 shows the risk factor profile for the whole baby boomer cohort (1946-1965). Insufficient exercise (sedentary or low) was the most common risk factor followed by high cholesterol (49.7 per cent) and obesity (32.5 per cent).

**Figure 6.3: Risk Factors – All Baby Boomers 1946-1965**

As Figure 6.4 shows, risk factor prevalence was similar in both cohorts, with the exception of high waist–hip ratio, high blood pressure and fasting plasma glucose level, all of which were significantly higher in the 1946-55 cohort. These are all components of the metabolic syndrome, which puts this cohort at greater risk for cardiovascular disease and diabetes. Where Figure 6.4 presents the percentage of baby boomers in each cohort with the specified risk factors, Figure 6.5 shows what proportion of each of the risk factors was held by the respective cohorts. Lifestyle risk factors, particularly smoking and alcohol risk, were held disproportionately by the 1956-65 cohort while a higher proportion of bio-medical risk factors were held by the older cohort. These differences reflect first, the likelihood that many members of the 1946-55 cohort have begun to make lifestyle changes in response to ageing and second, the translation of lifestyle risk into medical risk factors over time. The higher proportion of lifestyle risk factors held by the 1956-65 cohort suggests that lifestyle change is imperative if future health prospects are to be improved.
Figure 6.4: Risk Factors by Each Baby Boomer Age Cohort

*\textit{p value}<.05; **p value<.001

Source: NWAHS Stage 2, 2004-06 (Appendix 4.7)

Figure 6.5: Proportion of Risk Factors Held by Each Baby Boomer Age Cohort

*\textit{p value}<.05; **p value<.001

Source: NWAHS Stage 2, 2004-06 (Appendix 4.8)
A gender comparison of risk factors showed a distinct pattern within each cohort. Figure 6.6 shows that in the 1946-55 cohort males were significantly more likely than females to be at risk of high blood pressure, smoking, and alcohol use, while females were more likely to be at risk of obesity, high waist–hip ratio, insufficient exercise and high cholesterol.

**Figure 6.6: 1946-1955 Cohort - Risk Factors by Gender**

![Bar chart showing risk factors by gender]

*= p value <.05  
Source: NWAHS Stage 2, 2004-06 (Appendix 4.9)

In some respects, the 1956-65 cohort had a similar gender profile, however, as Figure 6.7 shows, there were also key differences. For instance, males in this cohort were more likely to have high cholesterol than females but, in contrast to the 1946-55 males, they were not significantly more likely to have alcohol or smoking risk. Also of note, but not included in Figures 6.6 or 6.7, is that males in both cohorts were more likely than females to be overweight (.000) (Appendix 4.9).
One notable factor in the comparison of gender differences within the cohorts is the changing patterns of nicotine and alcohol use. In the 1956-65 cohort there appeared to be a gender convergence in relation to smoking and alcohol risk, suggesting the influence of social change. As can be seen from Figure 6.8, the percentage of females in the 1946-55 cohort who had never smoked was nearly 17 per cent greater than that of males while in the 1956-65 cohort only 0.5 per cent more females had never smoked. Risky alcohol use by females in the 1956-65 cohort was also much closer to that of males with only a 1.5 per cent difference compared to the 6 per cent difference between males and females in the 1946-55 cohort. This convergence of male/female smoking and alcohol use may reflect socio-cultural changes in relation to gender roles, which might influence future health outcomes for women through, for example, increasing rates of COPD in this subgroup.
6.5 Socio-economic Characteristics, Chronic Conditions, and Risk Factors

This section focuses in more detail on obesity, arthritis, mental health, COPD, multiple chronic conditions (=>3) and multiple risk factors (=>3). The first three have been chosen because of their high prevalence and significant contribution to the burden of disease while the changing gender profile of COPD also warrants attention. Equally, identifying the extent to which baby boomers experience multiple risk factors and chronic conditions provides some indication of what lies ahead. Drawing on the literature, and results from this study, this section examines each of these conditions and risk factors in turn and discusses the implications of current prevalence rates for baby boomers’ health in the future. Logistic regression analyses (see Ch. 3, Sec. 3.7.4 for method) were conducted to determine the best set of variables to explain the association of socio-economic characteristics with each of the conditions and risk factors under study, with a separate analysis being performed for each cohort. The choice of socio-economic variables used in the logistic regressions was based on previous cross tabulations and included sex, family structure, employment status, education,
household income, marital status, pension status, and country of birth. These variables were cross tabulated by each of the dichotomous outcome variables that are listed in Table 6.1.

<table>
<thead>
<tr>
<th>Table 6.1: Outcome Variables</th>
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<tr>
<td><strong>Outcome Variable</strong></td>
</tr>
<tr>
<td>Obesity</td>
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<tr>
<td>COPD</td>
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<tr>
<td>Arthritis</td>
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<tr>
<td>Depression</td>
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<tr>
<td>Psych Wellbeing</td>
</tr>
<tr>
<td>Chronic Conditions</td>
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<tr>
<td>Risk Factors</td>
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</tbody>
</table>

Source: NWAHS Stage 2, 2004-06

### 6.5.1 Obesity

Obesity is a worldwide epidemic and its prevention is recognised as a global public health priority (Gill et al. 2004; National Preventative Task Force 2009). Although there is evidence of a decrease in the relationship between obesity and mortality (Flegal et al. 2005) it has been clearly established as a risk factor for a range of chronic diseases such as Type II diabetes, heart disease, osteoarthritis, breast cancer, respiratory disease, reproductive problems, and gallbladder disease (Gill et al. 2004; Alley and Chang 2007; Adams et al. 2008; AIHW 2010a). Results from a number of recent studies also suggest that obesity is associated with an increased risk of dementia through factors such as insulin dysregulation (Friedrich 2006). Abdominal obesity in midlife may also contribute to the risk of dementia (Whitmer et al., 2008), however, evidence on the extent to which overweight and obesity increase dementia risk varies and it is possible that the effect differs according to age. For instance, Whitmer et al. (2005) found that obesity in middle age increased the risk of dementia independently of comorbid conditions while a study by Dahl et al. (2008), in which the age of respondents was older (mean age 70.8), found that this was not the case.
Recent research suggests that if current obesity trends continue there will be significant increases in chronic diseases such as diabetes and obstructive sleep apnoea and in medical interventions such as knee replacements and bariatric surgery (Adams et al. 2008). Obesity is also related to long term disability, which is not necessarily resolved even when weight is returned to normal levels (Ferraro et al. 2002). Alley and Chang’s (2007) prospective study on the relationship between obesity and disability found that while reductions in disability had occurred over time in non-obese older groups, functional impairment increased by 43 per cent for those who were obese. Hence the slight reductions in disability prevalence noted in several US studies may well be occurring only in the non-obese population. Findings with similar implications were reported in a prospective study on arthritis and obesity that compared baby boomers with their predecessors (Leveille et al. 2005). This study showed that obesity began earlier in life with each successive cohort and, while there was no evidence of differences in arthritis prevalence across the cohorts, the percentage of arthritis attributable to obesity increased from 3 per cent to 18 per cent between 1971 and 2002 (Leveille et al. 2005). These studies lend credence to the proposition that baby boomers, due to their cumulative exposure to obesity over longer periods of time, may be at increased risk not only for chronic disease, but also for an added burden of disability due to both obesity and obesity related disease (Gregg and Guralnik 2007).

Obesity represents a significant cost to both individuals and the community with an estimated economic cost to Australia of nearly 4 billion dollars in 2005 and a further net cost of lost wellbeing\(^\text{18}\) valued at around 17 billion dollars (Access Economics 2006a). In addition, the extensive health consequences of obesity are likely to inhibit the success of policies designed to ameliorate the economic impacts of population ageing such as those aimed at increasing and extending the labour participation of older workers. Excess weight in older people is associated with impaired mobility, reduced social participation and lower quality of life (Villareal et al. 2005), all of which reduce the capacity to age well, not only physically, but also in relation to psychosocial health (Rowe and Kahn 1997). In Figure 6.9 and Figure 6.10,

\(^{18}\) The dollar value of the burden of disease, netting out financial costs borne by individuals.
the mean of the South Australian population is set at zero for the SF-36 PCS and MCS summary scores to allow a comparison of the physical and mental dimensions of quality of life in obese and non-obese groups (see Ch. 3, Sec. 3.7.4 for method). It shows only a mild effect for both physical and mental dimensions in the 1956-65 cohort but a moderate effect for the physical dimension in the 1946-55 cohort. The implication of these data is that the effect of obesity on quality of life may become more evident as people age.

Figure 6.9: SF-36 Summary Scores for Obesity – 1956-1965 Cohort

Source: NWAHS Stage 2, 2004-06

Figure 6.10: SF-36 Summary Scores for Obesity – 1946-1955 Cohort

Source: NWAHS Stage 2, 2004-06
Figure 6.11 shows that levels of obesity are similar in both the earlier and later cohorts while high waist-hip ratio is significantly more prevalent in the 1946-55 cohort. The literature indicates that lean body mass and BMI reach peak values at 50-59 years (Flegal et al. 1998; Mokdad et al. 2001; Villareal et al. 2005), which was roughly the age range of the 1946-55 cohort when data was collected. By contrast, the 1956-65 cohort, in which obesity prevalence is already virtually identical to the 1946-55 cohort, has yet to reach the age range at which lean body mass and BMI reach peak values. This means that, physiologically, they have more potential for weight gain over the next decade and suggests that the future prevalence of obesity in the 1956-65 cohort might be higher than that of the 1946-55 cohort.

**Figure 6.11: Prevalence of Obesity and High Waist Hip Ratio by Gender within Each Baby Boomer Age Cohort**

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Recent research suggests that obesity is the prime culprit in metabolic syndrome, with studies demonstrating that when bariatric surgery is used to remove excess weight, there is a significant reduction in the other risk factors associated with this syndrome, providing yet one more reason for tackling the obesity epidemic (Sjostrom et al. 2004; Nunes 2007). Table 6.2 shows that the prevalence of high waist ratio, a key variable used to establish metabolic
syndrome, has increased for both the 1946-55 and 1956-65 cohorts between Time one (2000-2003) and Time 2 (2004-2006).

Table 6.2: Changes in Prevalence of High Waist Ratio between T1 and T2

<table>
<thead>
<tr>
<th>Baby Boomer Age Cohort</th>
<th>Males</th>
<th></th>
<th>Females</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Time 1</td>
<td></td>
<td>Time 2</td>
<td></td>
</tr>
<tr>
<td>1946-1955</td>
<td>75.3</td>
<td></td>
<td>79.7</td>
<td></td>
</tr>
<tr>
<td>1956-1965</td>
<td>60.8</td>
<td></td>
<td>66.7</td>
<td></td>
</tr>
</tbody>
</table>

Source: NWAHS Stages 1 and 2

The literature indicates that ageing is associated with a redistribution of body fat including ‘... a greater relative increase in intraabdominal fat than in subcutaneous or total body fat and a greater relative decrease in peripheral than in central FFM19, because of the loss of skeletal muscle’ (Villareal et al. 2005). Hence, there is also good reason to hypothesise that the future prevalence of high waist ratio in the 1956-65 cohort may exceed that which currently exists for the 1946-55 cohort. Given the powerful association of central obesity with metabolic syndrome, which predisposes individuals to diabetes and cardiovascular disease (Lundgren et al. 1989; Chan et al. 1994; Folsom et al. 1998; Koh-Banerjee et al. 2003; Wood 2006), this has significant implications for the future health of the 1956-65 cohort, particularly for women in whom age-related increases in waist circumference are more common (Poehlman et al. 1995).

Logistic regression analyses conducted to identify the best set of explanatory variables for obesity are summarised in Table 6.3, and show that the associations varied slightly by cohort. In the final model for the 1946-55 cohort, family structure, pension status and marital status were the best set of explanatory variables. The odds of being obese were significantly greater for those who lived with a partner or with other adults compared to those who lived in a family with children, while those who lived in a step family approached significance. Equally, being on a government pension was also positively associated with obesity, while being widowed had a negative association, although this only approached significance. The best set of explanatory variables for the 1956-65 cohort included family structure, education, and country

19 FFM means fat free mass
of birth. As with the 1946-55 cohort, living with other adults was strongly associated with obesity; however, in contrast to the 1946-55 cohort, the odds of being obese were significant for living alone but not for living with a partner only. Having a secondary education also had a strong association with obesity, while the odds of being obese were less for those not born in Australia.

Table 6.3: Best Set of Explanatory Variables for Obesity

<table>
<thead>
<tr>
<th>1946-1955 Cohort</th>
<th>P Val</th>
<th>ORs</th>
<th>1956-1965 Cohort</th>
<th>P Val</th>
<th>ORs</th>
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<tbody>
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<td><strong>Family Structure</strong></td>
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<td><strong>Family Structure</strong></td>
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<td>.150</td>
<td>.61</td>
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<td>.70</td>
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<td>.98</td>
<td>Living alone</td>
<td>.013</td>
<td>1.94</td>
</tr>
<tr>
<td>Living with partner only</td>
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<tr>
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</tr>
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<td></td>
<td><strong>Education</strong></td>
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<td></td>
</tr>
<tr>
<td>Married/defacto</td>
<td>.040*</td>
<td>1.0</td>
<td>Bachelor degree</td>
<td>.001*</td>
<td>1.0</td>
</tr>
<tr>
<td>Separated/divorced</td>
<td>.655</td>
<td>1.23</td>
<td>Secondary</td>
<td>.003</td>
<td>2.25</td>
</tr>
<tr>
<td>Widowed</td>
<td>.074</td>
<td>.26</td>
<td>Trade/Appren/Diploma</td>
<td>.397</td>
<td>1.28</td>
</tr>
<tr>
<td>Never married</td>
<td>.184</td>
<td>2.13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Government Pension</strong></td>
<td></td>
<td></td>
<td><strong>Country of birth</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
<td>Australia</td>
<td>.029*</td>
<td>1.0</td>
</tr>
<tr>
<td>Yes</td>
<td>.007*</td>
<td>1.0</td>
<td>UK or Ireland</td>
<td>.042</td>
<td>.58</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.92</td>
<td>Other</td>
<td>.058</td>
<td>.56</td>
</tr>
</tbody>
</table>

*Likelihood Ratio;  
Source: NWAHS Stage 2, 2004-06

6.5.2 COPD

The key risk factor for COPD is smoking and hence it is generally associated with increasing age due to exposure over time; however, it is also aggravated by respiratory infections, pollution, occupational dusts and chemicals (AIHW 2010a). Self-report data from the NHS suggests that in those aged 65 or over COPD is generally more prevalent in males, with male mortality rates from COPD being almost double that of females (AIHW 2008). However, prevalence is difficult to establish as much COPD is largely undiagnosed, diagnostic criteria vary and self-reported data may be inaccurate due to misinterpretation of survey questions and the potential for confusing symptoms with asthma (Wilson et al. 2005; Wilson et al. 2007; AIHW 2008). In this sample, the prevalence of COPD was higher for females, with 10 percent of females in the 1946-55 cohort having COPD compared with 5.7 percent of males and
6.6 per cent of females from the 1956-65 cohort compared to 3.3 per cent of males. This is despite the fact that in both cohorts the percentage of females who were ex, or current, smokers was lower than that for males, with this being statistically significant in the 1946-55 cohort. Recent research in this area supports the notion of increasing risk amongst females and of the possibility that women may be more susceptible to greater physiologic impairment from tobacco exposure than men. Current hypotheses include ‘… a genetic predisposition for smoking-related lung damage that is gender specific’ and a dose-dependent effect, with each cigarette inhaled by a woman contributing proportionately greater damage due to the smaller size of female airways (Han et al. 2007:1180). With COPD being one of the top seven leading causes of disease burden in Australia (AIHW 2008) there is clearly a need for further research into gender differences in relation to the impact of the disease, its expression, progression and in responses to therapy (Han et al. 2007; Wilson et al. 2007).

Data from this study sample suggests that the burden of COPD is set to increase as female smokers or ex-smokers from the 1956-65 cohort of baby boomers move through the age structure. Only 53.8 per cent of females from the 1956-65 cohort had never smoked compared to 65.3 per cent of females in the 1946-55 cohort. This may contribute to an increased prevalence of COPD for 1956-65 females as they age. An examination of the SF-36 PCS and MCS summary scores for COPD (Appendix 4.10) showed that COPD had a severe effect on both physical and mental health in both cohorts. This effect may be more marked in women with some studies suggesting that women may experience greater stress and dysfunction from symptoms than men (Han et al. 2007; Martinez et al. 2007).

In both cohorts, the only socio-demographic characteristic associated with COPD was income and, as the results set out in Table 6.4 show, this was primarily in relation to being on an income of $20,000 or less. However, members of any income category below $60,000 had greater odds of having COPD and, in the 1956-65 cohort, the odds were also significantly greater for those on an income of $20-$40,000.
6.5.3 Mental and Psychological Health

Good mental health and psychological function are essential to positive ageing in the psychosocial domain but also contribute to healthy physical ageing, with results from a number of prospective studies showing that depression is a significant risk factor for physical morbidity and early mortality (Bruce and Leaf 1989; Vaillant and Mukamal 2001). Poor mental and psychological health is frequently associated with other risk factors such as smoking and substance abuse (Vaillant 2003; AIHW 2010a). Equally it can interfere with the capacity to socialise and generate meaningful and supportive relationships. In addition, complex inter-causal relationships exist between physical health, psychological health, social integration and social support, with each component frequently contributing to the other. People with mental illness often experience more than one class of mental illness at a time and those with chronic conditions are also more likely to experience mental illness (AIHW 2008). For instance, 28 percent of people with one of the national priority chronic conditions also had a mental illness compared to only 18 percent of those without a chronic condition (AIHW 2010a). Mental illness is also frequently accompanied by significant disability, with about half of the 5.2 percent of Australians who had a psychiatric disabling condition in 2003 having a severe or profound core activity limitation (AIHW 2008). Treatment for physical illness is often more challenging due to increased issues with treatment compliance and drug interactions, with those with a mental illness frequently having a longer hospital stay when being treated for other conditions (AIHW 2008).

Table 6.5 shows that baby boomers in the NWAHS had a high prevalence of mental health problems, which needs to be addressed if future health outcomes are to be improved. Consistent with the literature cited above, Figure 6.12 and Figure 6.13 show that respondents

<table>
<thead>
<tr>
<th>Income Level</th>
<th>1946-1955 Cohort P Val</th>
<th>1956-1965 Cohort P Val</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income Level</td>
<td>ORs</td>
<td>Income Level</td>
</tr>
<tr>
<td>$60,001 or more</td>
<td>.019*</td>
<td>$60,001 or more</td>
</tr>
<tr>
<td>$20,000 or less</td>
<td>.002</td>
<td>$20,000 or less</td>
</tr>
<tr>
<td>$20,000 - $40,000</td>
<td>.122</td>
<td>$20,000 - $40,000</td>
</tr>
<tr>
<td>$40,001 - $60,000</td>
<td>.104</td>
<td>$40,001 - $60,000</td>
</tr>
</tbody>
</table>

* Likelihood Ratio

Source: NWAHS Stage 2, 2004-06

Table 6.4: Best Set of Explanatory Variables for COPD
with poor mental and psychological health, as measured by Goldberg’s General Health Questionnaire (GHQ-12) and the Centre for Epidemiologic Depression Scale (CES-D) (Appendix 2.6), were significantly more likely to suffer from multiple chronic conditions.

**Table 6.5: Prevalence of Mental Health Problems – Baby Boomers 1946-1965**

<table>
<thead>
<tr>
<th>Mental Health Measure</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self Reported Mental Health Problem</td>
<td></td>
</tr>
<tr>
<td>No mental health problem</td>
<td>83.0</td>
</tr>
<tr>
<td>Mental health problem</td>
<td>17.0</td>
</tr>
<tr>
<td>Total</td>
<td>1269</td>
</tr>
<tr>
<td>GHQ12 – Psychological Wellbeing</td>
<td></td>
</tr>
<tr>
<td>Low or no disturbance</td>
<td>75.6</td>
</tr>
<tr>
<td>Mild or moderate disturbance</td>
<td>11.0</td>
</tr>
<tr>
<td>High or severe disturbance</td>
<td>13.4</td>
</tr>
<tr>
<td>Total</td>
<td>1192</td>
</tr>
<tr>
<td>CESD Depression Scale</td>
<td></td>
</tr>
<tr>
<td>No depressive symptoms</td>
<td>87.0</td>
</tr>
<tr>
<td>Mild depression</td>
<td>8.1</td>
</tr>
<tr>
<td>Moderate to severe depression</td>
<td>4.1</td>
</tr>
<tr>
<td>Total</td>
<td>1270</td>
</tr>
</tbody>
</table>

Source: NWAHS Stage 2

**Figure 6.12: Psychological Disturbance by Three or More Chronic Conditions – Baby Boomers 1946-1965**

**p value <.001
Source: NWAHS Stage 2, 2004-06**
There is a growing body of literature on the extent to which factors influencing psychological and mental health in mid-life might be different to those in early and later life (Almeida and Horn 2004; Kessler et al. 2004; Mroczek 2004). Two key areas of research focus on the extent to which psychological wellbeing is influenced by internal changes related to coping mechanisms and biological changes, and external contextual changes related to roles and resources. A number of theories propose that stress reactivity declines with age with this occurring partly through biological mechanisms (Panskepp and Miller 1996), but also through more mature coping strategies that begin to emerge in midlife (Brandtstadter and Renner 1990; Vaillant 2003). These mechanisms reduce the impact of stress and thus make the psyche less vulnerable to destabilisation. This is one of the concepts used to explain the apparent decrease in the prevalence of major depression in community dwelling older adults (Kessler et al. 2004). Research on the impact of external contextual changes suggests that differential exposure to stress may also contribute to depression (Kessler et al. 2004). Research in this area focuses on the nature and extent to which individuals are exposed to objective stress at different periods of the lifecycle (Almeida and Horn 2004; Kessler et al.).

**Figure 6.13: Depression by Three or More Chronic Conditions
Boomers 1946-1965**

![Bar chart showing depression by multiple conditions for Boomers 1946-1965]

**p value <.001
Source: NWAHS Stage 2, 2004-06**
2004; Mroczek 2004). For instance, Mroczek (2004) found that positive and negative affect\textsuperscript{20} in midlife adults, appeared to be more influenced by contextual factors than it was in older or younger adults, with education, work and relationships being key explanatory variables.

The lower prevalence of major depression in community dwelling older adults may lead to the assumption that mental health in the baby boomer cohort will improve as they leave mid-life stressors behind, and/or develop more mature coping mechanisms, however, this is by no means certain. Firstly, the long term impact of \textit{contemporary} mid-life objective stressors, many of which relate to socio-cultural changes such as divorce, dual income families, and more precarious attachment to the labour force, has yet to be determined. Secondly, the lack of consistency in study methodologies means that prevalence estimates of depression in the elderly vary considerably (Snowdon 2001), hence, assumptions that mental health improves as people age may not be accurate. Indeed, much depression in the elderly population is under-reported and under-diagnosed, partly due to a diagnostic focus on major depressive illness as outlined in the DSM-IV\textsuperscript{21} criteria (Lyness et al. 2007). However, as the above research suggests, while the type of depression experienced may change as people age this does not necessarily denote a decrease in prevalence. There is a growing body of evidence that, due to neurochemical changes in the brain, affect in older people is less intense (Panskepp and Miller 1996), and that depressive symptoms and sub-syndromal depression are more common than major depressive illness (Lyness et al., 2007). Sub-syndromal depression, while less severe than major depression, still undermines quality of life and reduces the capacity for self-care and social interaction (Goldney et al. 2004a; Lyness et al. 2007). In addition, one theory proposes that the reduced prevalence of major depression in the older population is due to a selection effect, as those who are prone to depression are more at risk of early mortality or institutionalisation (Murphy et al. 1987). The complexity of the causes associated with mental illness make it difficult to predict the extent to which current prevalence rates for depression

\textsuperscript{20} Emotion or subjectively influenced feeling.

\textsuperscript{21} Diagnostic and Statistical Manual of Mental Disorders — provides standard criteria for classifying mental disorders and is published by the American Psychiatric Association.
and psychological disturbance in the baby boomer cohort will persist into later life, however, there is clearly a need to address psychological and mental ill-health in this cohort and to develop effective interventions and services to reduce both current and potential future prevalence.

The best set of explanatory variables for psychological disturbance and depression are set out in Table 6.6 and Table 6.7.

### Table 6.6: Best Set of Explanatory Variables for Psychological Disturbance

<table>
<thead>
<tr>
<th>1946-1955 Cohort</th>
<th>P Val</th>
<th>ORs</th>
<th>1956-1965 Cohort</th>
<th>P Val</th>
<th>ORs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td></td>
<td></td>
<td>Work status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$100,000 or more</td>
<td>.003*</td>
<td>1.0</td>
<td>Full-time employment</td>
<td>.003*</td>
<td>1.0</td>
</tr>
<tr>
<td>$20,000 or less</td>
<td></td>
<td></td>
<td>Part time/casual</td>
<td>.664</td>
<td>.72</td>
</tr>
<tr>
<td>$20,000 - $40,000</td>
<td>.040</td>
<td>2.58</td>
<td>Unemployed</td>
<td>.038</td>
<td>1.07</td>
</tr>
<tr>
<td>$40,001 - $60,000</td>
<td>.516</td>
<td>1.36</td>
<td>Home Duties</td>
<td>.643</td>
<td>.63</td>
</tr>
<tr>
<td>$60,001 - $100,000</td>
<td>.260</td>
<td>1.69</td>
<td>Retired</td>
<td>.929</td>
<td>.11</td>
</tr>
<tr>
<td>Country of Birth</td>
<td></td>
<td></td>
<td>Student/Other</td>
<td>.000</td>
<td>2.39</td>
</tr>
<tr>
<td>Australia</td>
<td>.022*</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UK and Ireland</td>
<td>.038</td>
<td>1.70</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>.020</td>
<td>1.99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Likelihood Ratio
Source: NWAHS Stage 2, 2004-06

### Table 6.7: Best Set of Explanatory Variables for Depression

<table>
<thead>
<tr>
<th>1946-1955 Cohort</th>
<th>P Val</th>
<th>ORs</th>
<th>1956-1965 Cohort</th>
<th>P Val</th>
<th>ORs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td></td>
<td></td>
<td>Income</td>
<td>.006*</td>
<td></td>
</tr>
<tr>
<td>$100,000 or more</td>
<td>.000*</td>
<td>1.0</td>
<td>$100,000 or more</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>$20,000 or less</td>
<td>.004</td>
<td>8.23</td>
<td>$20,000 or less</td>
<td>.097</td>
<td>2.94</td>
</tr>
<tr>
<td>$20,000 - $40,000</td>
<td>.053</td>
<td>1.39</td>
<td>$20,000 - $40,000</td>
<td>.034</td>
<td>3.21</td>
</tr>
<tr>
<td>$40,001 - $60,000</td>
<td>.668</td>
<td>1.12</td>
<td>$40,001 - $60,000</td>
<td>.112</td>
<td>2.37</td>
</tr>
<tr>
<td>$60,001 - $100,000</td>
<td>.793</td>
<td>.80</td>
<td>$60,001 - $100,000</td>
<td>.900</td>
<td>1.07</td>
</tr>
<tr>
<td>Work status</td>
<td></td>
<td></td>
<td>Full-time employment</td>
<td>.037*</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Part time/casual</td>
<td>.871</td>
<td>.95</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Unemployed</td>
<td>.016</td>
<td>4.59</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Home Duties</td>
<td>.188</td>
<td>.54</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Retired</td>
<td>.979</td>
<td>1.04</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Student/Other</td>
<td>.076</td>
<td>3.08</td>
</tr>
</tbody>
</table>

*Likelihood Ratio
Source: NWAHS Stage 2, 2004-06

Not surprisingly, psychological disturbance and depression in the 1946-55 cohort were significantly associated with low income with the association strongest for those on an income of $20,000 or less. However, psychological disturbance was also strongly associated with...
country of birth with migrants being more likely to be affected than the Australian born. This suggests that psychological issues associated with migration may come to the fore in later life. For the 1956-65 cohort, income was an explanatory variable for depression, but not for psychological disturbance, with the association being significant for those on $20-$40,000 and approaching significance for those on less than $20,000. In this cohort, work status was also a key explanatory variable for both depression and psychological disturbance with this being significant for the unemployed. The association was also significant for the student/other category in relation to psychological disturbance but only approached significance for depression.

The strong association between mental health and having a marginal work status has implications for both the wellbeing of individuals and for social policies aimed at increasing labour participation in older age groups. Work has been shown to have a beneficial effect on health and being out of work can lead to psychological or psychiatric morbidity (Department for Work and Pensions 2006:12). However, the causal pathways between work, depression and psychological disturbance are complex. The beneficial effects of work depend on the nature and quality of the work, as low levels of decision latitude, inadequate social support and other stressors in the workplace can also contribute to psychological distress and depression (Niedhammer et al. 1998; Michie and Williams 2003) and, in some instances, result in a premature departure from the workforce (Butterworth, Gill et al., 2006). An analysis of changes in health over time in this cohort (Appendix 4.11) found that those who had become unemployed at Time 2 showed an improvement in the SF-36 MCS summary score. Although not common, this effect is not without precedent (Department for Work and Pensions, 2006 :12), and may reflect that some older workers face stressful employment conditions, which damage, rather than benefit health. Some credence is given to this notion by the fact that the depressed group had the highest proportion of those who had made changes to work or intended to make changes in the future.

**6.5.4 Arthritis and Musculoskeletal Conditions**

Arthritis is one of the most common causes of disability and has a marked impact on both physical and mental wellbeing (Rahman and Bhatia 2007). It impacts on everyday function,
reduces a person’s sense of autonomy and reduces the capacity for social engagement, thus inhibiting the capacity for positive ageing in both the physical and psychological domains. This is clearly indicated by the SF-36 PCS and MCS summary scores (Appendix 4:12) which show that arthritis has a severe effect on physical health and a moderate effect on mental health in the 1946-55 cohort while for the earlier born cohort the effect is severe for both physical and mental health. Arthritis has a strong association with other chronic conditions meaning that those with arthritis are more likely to experience comorbidity and reduced quality of life (Government of South Australia 2007). More than 30 per cent of people who have an arthritis related disability, and nearly half of those with disability associated with osteoporosis, have a profound or severe limitation in performing core activities related to self care and mobility (AIHW 2008). Arthritis and other musculoskeletal conditions account for 7.5 per cent of YLD and are the fourth leading cause of health expenditure with $4.0 billion being attributed to these conditions in 2004-05 (AIHW 2008).

Around 27 per cent of the 1946-55 cohort and 12 per cent of the 1956-65 cohort had some form of arthritis with this likely to increase as both cohorts continue to age. In addition, of all the chronic conditions included in this study arthritis was the most likely to have significant associations with other conditions, with these being evident for diabetes, asthma, cardiovascular disease, psychological disturbance, obesity, osteoporosis and COPD (Appendix 4.13). Although these associations occurred across the whole of the cohort those with arthritis in the 1946-55 cohort were significantly more likely than their 1956-65 counterparts to also have diabetes, cardiovascular disease and kidney disease. Females with arthritis were significantly more likely to also have kidney disease and COPD but less likely than males with arthritis to have cardiovascular disease or diabetes. The broad association of arthritis with other chronic conditions means that arthritis sufferers are at greater risk of disability and lower quality of life and illustrates the importance of early diagnosis and the implementation of appropriate programmes to manage this condition and reduce related disability. Table 6.8 shows that the best set of explanatory variables for arthritis varies by cohort. In the 1946-55 cohort, being female and being on a government pension were significant while for the 1956-65 cohort being on an income of between $20-$40,000 and being in the student/other were significant.
Table 6.8: Best Set of Explanatory Variables for Arthritis

<table>
<thead>
<tr>
<th>1946-1955 Cohort</th>
<th>P Val</th>
<th>ORs</th>
<th>1956-1965 Cohort</th>
<th>P Val</th>
<th>ORs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td><strong>Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>.005*</td>
<td>1.0</td>
<td>$100,000 or more</td>
<td>.005*</td>
<td>1.0</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>1.77</td>
<td>$20,000 or less</td>
<td>.142</td>
<td>3.68</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$20,000 - $40,000</td>
<td>.014</td>
<td>6.77</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$40,001 - $60,000</td>
<td>.040</td>
<td>4.92</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$60,001 - $100,000</td>
<td>.269</td>
<td>2.39</td>
</tr>
<tr>
<td><strong>Pension</strong></td>
<td></td>
<td></td>
<td><strong>Work status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No pension</td>
<td>.000*</td>
<td>1.0</td>
<td>Full-time employment</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Pension</td>
<td></td>
<td>2.73</td>
<td>Part-time/casual</td>
<td>.128</td>
<td>.58</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Unemployed</td>
<td>.326</td>
<td>2.03</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Home Duties</td>
<td>.372</td>
<td>1.41</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Retired</td>
<td>.858</td>
<td>1.30</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Student/Other</td>
<td>.001</td>
<td>8.07</td>
</tr>
</tbody>
</table>

* Likelihood Ratio
Source: NWAHS Stage 2, 2004-06

Although arthritis has a range of causes, depending on its form (AIHW 2010a), key factors that increase the risk of arthritis include obesity and low levels of physical activity (Brooks, 2006). As noted in Section 6.5.1 some of the risk for arthritis appears to be shifting from physical occupational stresses to obesity, (Leveille et al. 2005), hence strategies that focus on prevention in these areas through encouraging weight loss and increased physical activity may yield dividends. However, there is also evidence that the work environment can play a role in arthritis. This is not confined to physical ergonomic aspects of the environment or to physically demanding occupations but can also include psychosocial factors related to work pressure and lack of control (Jensen et al. 2002; Warren et al. 2008). One study, which examined the role of job characteristics and socio-economic status in changes in health over time, noted that job characteristics were associated with changes in musculoskeletal health independently of health risk factors, childhood health and socio-economic status (Warren et al. 2008).

6.5.5 Multiple Risk Factors and Chronic Conditions

The more risk factors an individual has the greater the likelihood they will develop one or more chronic diseases (Vaillant, 2003; Grant et al. 2005). Equally, comorbidities make health
management more complex and challenging and are associated with reduced quality of life and greater utilisation of health services (Grant et al. 2005). Hence, the extent to which baby boomers have multiple risk factors or multiple conditions is relevant to both their future wellbeing and health management. Two variables were created (Appendix 4.14) to identify the percentage of respondents with zero, one, two, and three or more risk factors and chronic conditions. Around 37 per cent of baby boomers had three or more risk factors and only 9.2 per cent had none. Members of the 1946-55 cohort were more likely to have three or more risk factors (.010) but there were no significant gender differences across the cohort as a whole. However, Table 6.9 shows that while there were no significant gender differences in the younger cohort this was not the case in the 1946-55 cohort, with females in this cohort being significantly more likely than 1946-55 males to have 3 or more risk factors and less likely to have none.

Table 6.9: Multiple Risk Factors by Gender within Each Baby Boomer Age Cohort

<table>
<thead>
<tr>
<th>Number of Risk Factors</th>
<th>1946-1955 Cohort – aged 51-60</th>
<th>1956-1965 Cohort – aged 41-50</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
</tr>
<tr>
<td>0</td>
<td>11.2</td>
<td>5.5*</td>
</tr>
<tr>
<td>1</td>
<td>23.3</td>
<td>19.9</td>
</tr>
<tr>
<td>2</td>
<td>29.4</td>
<td>29.2</td>
</tr>
<tr>
<td>3 or more</td>
<td>36.2</td>
<td>45.5*</td>
</tr>
<tr>
<td>Total</td>
<td>230</td>
<td>244</td>
</tr>
</tbody>
</table>

*p value=<.05
Source: NWAHS Stage 2, 2004-06

Table 6.10 shows that being on a government pension was the only variable to be significantly associated with three or more risk factors for the 1946-55 cohort while both education and income were key explanatory variables for the 1956-65 cohort. A positive relationship was present for secondary education and being on an income of less than $100,000, with ORs for all levels of income below this level being significantly greater than 1.0.
Table 6.10: Best Set of Explanatory Variables for Three or More Risk Factors

<table>
<thead>
<tr>
<th>Pension</th>
<th>1946-1955 Cohort</th>
<th>ORs</th>
<th>1956-1965 Cohort</th>
<th>ORs</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>P Val</td>
<td>ORs</td>
<td>No</td>
<td>P Val</td>
</tr>
<tr>
<td>Yes</td>
<td>.000*</td>
<td>1.0</td>
<td>.039*</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.85</td>
<td></td>
<td>1.77</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>1946-1955 Cohort</th>
<th>ORs</th>
<th>1956-1965 Cohort</th>
<th>ORs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor degree</td>
<td>.014</td>
<td>1.0</td>
<td>.005</td>
<td>4.42</td>
</tr>
<tr>
<td>Secondary</td>
<td>.076</td>
<td>1.77</td>
<td>.003</td>
<td>3.86</td>
</tr>
<tr>
<td>Trade/Appren/Diploma</td>
<td>.078</td>
<td>2.18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Income</th>
<th>1946-1955 Cohort</th>
<th>ORs</th>
<th>1956-1965 Cohort</th>
<th>ORs</th>
</tr>
</thead>
<tbody>
<tr>
<td>$100,000 or more</td>
<td>.004*</td>
<td>1.0</td>
<td>.003</td>
<td>2.18</td>
</tr>
<tr>
<td>$20,000 or less</td>
<td>.009</td>
<td>3.34</td>
<td>.003</td>
<td>3.86</td>
</tr>
<tr>
<td>$20,000 - $40,000</td>
<td>.001</td>
<td>3.34</td>
<td>.003</td>
<td>3.86</td>
</tr>
<tr>
<td>$40,001 - $60,000</td>
<td>.003</td>
<td>3.86</td>
<td>.003</td>
<td>3.86</td>
</tr>
<tr>
<td>$60,001 - $100,000</td>
<td>.078</td>
<td>2.18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Log Likelihood
Source: NWAHS Stage 2, 2004-06

Around 45 percent of baby boomers had no chronic conditions, 36.1 percent had one condition and around 18 percent had two or more chronic conditions. However, as Table 6.11 shows, this varied significantly by gender and cohort. Females across the whole cohort (1946-1965) were more likely to have three or more chronic conditions than males (.000) and, as would be expected, members of the 1946-55 cohort were more likely to have two, or three or more chronic conditions, and less likely to have zero conditions than those in the 1956-65 cohort (.000).

Table 6.11: Multiple Chronic Conditions for Each Boomer Age Cohort and for Gender

<table>
<thead>
<tr>
<th>Number of Chronic Conditions</th>
<th>1946-55 – aged 51-60</th>
<th>1956-65 – aged 41-50</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>38.8</td>
<td>51.4**</td>
<td>48.3</td>
<td>42.8</td>
</tr>
<tr>
<td>1</td>
<td>36.7</td>
<td>35.6</td>
<td>36.7</td>
<td>35.6</td>
</tr>
<tr>
<td>2</td>
<td>15.5</td>
<td>8.9**</td>
<td>10.7</td>
<td>13.3</td>
</tr>
<tr>
<td>3 or more</td>
<td>8.9</td>
<td>4.1**</td>
<td>4.4</td>
<td>8.2*</td>
</tr>
<tr>
<td>Total</td>
<td>530</td>
<td>603</td>
<td>560</td>
<td>573</td>
</tr>
</tbody>
</table>

* p=<.05; ** p=<.001
Source: NWAHS Stage 2, 2004-06

The best set of explanatory variables for having three or more chronic conditions is shown in Table 6.12. For the 1946-55 cohort, sex had a marginal significance probability of .059 and was retained in the model since the bivariate analysis clearly pointed to females being more likely to have three or more conditions.
In the 1956-65 cohort having three or more chronic conditions was positively associated with living alone or living with partner only. In both cohorts the only two risk factors significantly associated with having three or more chronic conditions were obesity and high waist hip ratio (Appendix 4.15). In the 1946-55 cohort those with a high waist–hip ratio had more than four and a half times the odds of having three or more chronic conditions whilst those in the obese category had more than six and a half times the odds of having three or more chronic conditions. In the 1956-65 cohort both those with a high waist–hip ratio and those who were obese had nearly three times the odds of having three or more chronic conditions.

6.5.6 Changing Patterns in Health

There are few empirical studies that compare the health of baby boomers with that of previous generations at the same ages, with a literature search revealing no such Australian studies. Such comparisons are useful because they highlight the impact of lifestyle and social change on patterns of risk and morbidity and help to identify areas in which new approaches are needed. Although it has been beyond the scope of this study to undertake such a comparison, an overview of several comparative studies from the UK and the US highlights some of the ways in which health patterns appear to be changing, with some of these results challenging the optimistic view that baby boomers will have better health than their predecessors.

As already noted, baby boomers’ higher rates of obesity and its emergence earlier in life puts this cohort at increased risk from a range of obesity related conditions. A study by Evandrou

### Table 6.12: Best Set of Explanatory Variables for Three or More Chronic Conditions

<table>
<thead>
<tr>
<th>1946-1955 Cohort</th>
<th>P Val</th>
<th>ORs</th>
<th>1956-1965 Cohort</th>
<th>P Val</th>
<th>ORs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
<td><strong>Living arrangements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$60,001 or more</td>
<td>.001*</td>
<td>1.0</td>
<td>Family with children</td>
<td>.027*</td>
<td>1.0</td>
</tr>
<tr>
<td>$20,000 or less</td>
<td>.000</td>
<td>5.63</td>
<td>Step family</td>
<td>.118</td>
<td>3.00</td>
</tr>
<tr>
<td>$20,000 - $40,000</td>
<td>.135</td>
<td>2.08</td>
<td>Sole parent/shared parenting</td>
<td>.228</td>
<td>2.46</td>
</tr>
<tr>
<td>$40,001 - $60,000</td>
<td>.894</td>
<td>.92</td>
<td>Living alone</td>
<td>.002</td>
<td>6.97</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Living with partner only</td>
<td>.005</td>
<td>5.20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Living with other adults</td>
<td>.458</td>
<td>2.05</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>.059</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>1.90</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: *Likelihood Ratio
Source: NWAHS Stage 2, 2004-06
and Falkingham (2000) found that baby boomers had slightly higher levels of long standing illness than pre-war cohorts and higher levels of work related stress but reduced health risk in relation to smoking. Chen et al. (2007) found that baby boomer mothers had lower levels of self-rated health (SRH) than pre-boomer mothers and that their SRH declined more rapidly over time. Baby boomer mothers also had a higher self-reported prevalence of depression, chronic life-style related conditions, illicit drug use, and lower self esteem (Chen et al. 2007). However, it was also noted that greater knowledge and higher expectations about health may have caused them to rate their health differently, due for instance, to greater awareness about health risks associated with smoking and obesity (Chen et al. 2007). Putney and Bengtson (2005) found that baby boomer women were significantly more depressed and had lower levels of self esteem than previous generations of women at the same life stage. They draw attention to the importance of biographical and historical timing for the psychological functioning of baby boomer women noting that women born 1931-1945 did not have to juggle work and family in the same way as baby boomers. Hence, during the period of economic restructuring and rapid changes to gender roles that occurred during the late 1970s to 1990s, they were already well established in mid-life, unlike baby boomers who experienced these upheavals during the intensive early years of adulthood (Putney and Bengtson 2005). Although findings from these studies are not directly transferable to an Australian setting, many of the factors identified as possible contributors to poorer health, such as obesity and increased stress arising from social change, are also common to Australia.

6.6 How Health Differs between Subgroups

6.6.1 Current Health Resources

Differences in health resources available to subgroups within the cohort were assessed by current health status and a range of lifestyle patterns/behaviours. Current health was measured by whether respondents had three or more chronic conditions (Appendix 4.14) and by self-rated health, a measure that is considered a good indicator of actual general health (ABS 2005). The severity of risk was measured by whether respondents had three or more risk
Additional variables measured lifestyle patterns/behaviours and included: daily fruit, vegetable and water intake, average hours of sleep per night, frequency of eating out and the overall stress experienced in meeting general life commitments.

In the 2007-08 National Health Survey, 85 per cent of the population aged 15 years and over reported their health to be good to excellent (ABS 2009b). By contrast, around 80 per cent of NWAHS baby boomers reported good to excellent health, with their lower score likely to be an age effect. However, this relatively positive result is partly due to the younger age of the 1956-65 cohort and, as their level of lifestyle risk is similar, and in some cases higher than the older cohort, it is likely that their health outcomes will be comparable to the older cohort when they reach the same age. Hence a more accurate idea of the cohort’s future health resources is given by the health status of the older cohort. In this respect, only 75.5 per cent of this cohort had less than two chronic conditions compared to 87 per cent of the younger cohort.

Health resources varied significantly by other groupings within the cohort. Table 6.13 and Figure 6.14 show that the low income, singles, retired and depressed groups were significantly more likely than their mainstream counterparts to have three or more chronic conditions and less likely to have good to excellent self-rated health. All at-risk groups had higher proportions with three or more risk factors, with this being statistically significant for the low income, depressed and non-planning groups.

### Table 6.13: Chronic Conditions and Risk Factors by Subgroups

<table>
<thead>
<tr>
<th></th>
<th>Three or More CCs</th>
<th>Three or More RFs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Singles</td>
<td>9.7</td>
<td>190</td>
</tr>
<tr>
<td>Couples</td>
<td>5.5</td>
<td>743</td>
</tr>
<tr>
<td>Low Income</td>
<td>12.3</td>
<td>277</td>
</tr>
<tr>
<td>Higher Income</td>
<td>3.6</td>
<td>634</td>
</tr>
<tr>
<td>Depressed</td>
<td>19.7</td>
<td>112</td>
</tr>
<tr>
<td>Not Depressed</td>
<td>4.5</td>
<td>821</td>
</tr>
<tr>
<td>Non-planners</td>
<td>6.5</td>
<td>308</td>
</tr>
<tr>
<td>Planners</td>
<td>4.2</td>
<td>522</td>
</tr>
<tr>
<td>Retired</td>
<td>17.7</td>
<td>96</td>
</tr>
<tr>
<td>Not Retired</td>
<td>5.0</td>
<td>830</td>
</tr>
</tbody>
</table>

Source: NWAHS Stage 2, 2004-06
The depressed had the worst health and, as shown in Figure 6.15, their health related quality of life was markedly lower than that of the non-depressed.

Source: NWAHS Stage 2, 2004-06
When chronic conditions were examined individually, all at-risk groups except for non-planners were significantly more likely to have arthritis and, as shown in Table 6.14, except for singles, the proportion with arthritis was at least double that of mainstream groups. Arthritis was also significantly associated with labour force status with 30.4 per cent of those who were casual or unemployed having arthritis compared to only 14.5 per cent of those who were full or part time employed.

**Table 6.14: Prevalence of Arthritis – At-risk and Mainstream Subgroups**

<table>
<thead>
<tr>
<th></th>
<th>No Arthritis</th>
<th>Arthritis</th>
<th>N</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Couples</td>
<td>82.3</td>
<td>17.7</td>
<td>821</td>
<td>.044</td>
</tr>
<tr>
<td>Singles</td>
<td>76.1</td>
<td>23.9</td>
<td>208</td>
<td></td>
</tr>
<tr>
<td>Not Depressed</td>
<td>83.4</td>
<td>16.6</td>
<td>897</td>
<td>.000</td>
</tr>
<tr>
<td>Depressed</td>
<td>64.9</td>
<td>35.1</td>
<td>133</td>
<td></td>
</tr>
<tr>
<td>High Income</td>
<td>86.5</td>
<td>13.5</td>
<td>658</td>
<td>.000</td>
</tr>
<tr>
<td>Low Income</td>
<td>70.7</td>
<td>29.3</td>
<td>290</td>
<td></td>
</tr>
<tr>
<td>Not Retired</td>
<td>83.3</td>
<td>16.7</td>
<td>915</td>
<td>.000</td>
</tr>
<tr>
<td>Retired</td>
<td>62.3</td>
<td>37.7</td>
<td>108</td>
<td></td>
</tr>
</tbody>
</table>

Source: NWAHS Stage 2, 2004-06

Similarly, all at-risk groups except for non-planners were more likely to report a mental health problem. Again, this was also the case for those with an employment status of casual or unemployed. Those in low income, singles and retired groups were more likely to have diabetes while all at-risk groups except for singles were more likely to have COPD. COPD was particularly prevalent in the depressed group at 17.1 per cent compared to 4.8 per cent for the not depressed. By contrast, there were no significant differences between at-risk and mainstream groups for cardiovascular disease. These results indicate the magnitude of the gap in health outcomes between at-risk and mainstream groups with this being particularly large for low income, depressed and retired groups. At-risk groups will clearly require greater support and more medical services and the gap in health outcomes needs to be taken seriously as at-risk groups comprise a considerable proportion of the baby boomer population: 30.7 per cent of NWAHS baby boomers were on an income of less than $40,000; 20.4 per cent were single; 12.9 per cent suffered from moderate to severe depression; 10.8 per cent were retired and 38.4 per cent classified themselves as non-planners.

Lifestyle behaviours have been shown to have a major influence on health and function and, as demonstrated in Chapter 5, the majority of baby boomers believed nutrition and exercise to be
important or very important for healthy outcomes in later life. However, although authorities (National Health and Medical Research Council (NHMRC), 2003) recommend five serves of vegetables, two serves of fruit and eight glasses of water per day, the mean daily consumption of baby boomers in this sample was 2.68 serves of vegetables (SD1.38), 1.79 pieces of fruit (SD1.961) and 3.68 glasses of water (SD2.27). The proportion having sufficient physical activity was also low at only 35.4 per cent. MacKay (1997) noted that baby boomers were the first generation to cite stress as a major problem, so it is perhaps not surprising to find that 58.3 per cent of all baby boomers experienced moderate to severe stress in meeting their everyday life commitments. Table 6.15 and Table 6.16 compare the nutritional and lifestyle behaviours of at-risk groups with their mainstream counterparts. Although most at-risk groups had worse health than mainstream groups, there were few significant differences in their health behaviours. Singles were more likely to have lower vegetable consumption than couples, and singles and the depressed were more likely to sleep less and to experience moderate to severe levels of stress from their everyday commitments. Higher proportions of all at-risk groups, except for the retired, ate out more often with this being significant for singles and the depressed. However, this was still only a small proportion as nearly 90 per cent of all at-risk groups ate at home most or nearly all of the time. The retired were more likely to have a higher vegetable intake than those who weren’t retired and were less likely to experience moderate to severe stress from their everyday commitments.

Table 6.15: Nutritional Measures - At-risk and Mainstream Subgroups

<table>
<thead>
<tr>
<th></th>
<th>Mean Vegetables</th>
<th>SD</th>
<th>Mean fruit</th>
<th>SD</th>
<th>Mean Water</th>
<th>SD</th>
<th>Mean sleep</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partnered</td>
<td>2.73 **</td>
<td>1.39</td>
<td>1.77</td>
<td>.93</td>
<td>3.63</td>
<td>2.24</td>
<td>7.07</td>
<td>1.17</td>
</tr>
<tr>
<td>Singles</td>
<td>2.44</td>
<td>1.30</td>
<td>1.83</td>
<td>.97</td>
<td>3.86</td>
<td>2.38</td>
<td>6.87</td>
<td>1.38</td>
</tr>
<tr>
<td>Higher Income</td>
<td>2.65</td>
<td>1.37</td>
<td>1.77</td>
<td>.97</td>
<td>3.67</td>
<td>2.29</td>
<td>7.03</td>
<td>1.12</td>
</tr>
<tr>
<td>Low Income</td>
<td>2.74</td>
<td>1.40</td>
<td>1.83</td>
<td>.95</td>
<td>3.58</td>
<td>2.19</td>
<td>6.99</td>
<td>1.40</td>
</tr>
<tr>
<td>Not Depressed</td>
<td>2.69</td>
<td>1.38</td>
<td>1.79</td>
<td>.95</td>
<td>3.63</td>
<td>2.22</td>
<td>7.07*</td>
<td>1.12</td>
</tr>
<tr>
<td>Depressed</td>
<td>2.65</td>
<td>1.43</td>
<td>1.78</td>
<td>1.01</td>
<td>3.91</td>
<td>2.36</td>
<td>6.74</td>
<td>1.67</td>
</tr>
<tr>
<td>Planners</td>
<td>2.69</td>
<td>1.43</td>
<td>1.78</td>
<td>1.02</td>
<td>3.59</td>
<td>2.24</td>
<td>7.04</td>
<td>1.10</td>
</tr>
<tr>
<td>Non-planners</td>
<td>2.57</td>
<td>1.29</td>
<td>1.85</td>
<td>.88</td>
<td>3.86</td>
<td>2.38</td>
<td>6.95</td>
<td>1.28</td>
</tr>
<tr>
<td>Not Retired</td>
<td>2.65^</td>
<td>1.38</td>
<td>1.81</td>
<td>.97</td>
<td>3.69</td>
<td>2.29</td>
<td>7.01</td>
<td>1.18</td>
</tr>
<tr>
<td>Retired</td>
<td>2.92</td>
<td>1.44</td>
<td>1.66</td>
<td>.88</td>
<td>3.63</td>
<td>2.09</td>
<td>7.22</td>
<td>1.53</td>
</tr>
</tbody>
</table>

^ p=<.08; * p=<.05; ** p=<.001
Source: NWAHS TFU Survey 2 (CATI), 2007
Table 6.16: Lifestyle Measures - At-risk and Mainstream Subgroups

<table>
<thead>
<tr>
<th></th>
<th>Sufficient Physical Activity</th>
<th>Eating at Home Sometimes or Hardly any of the Time</th>
<th>Stress – Moderate to Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Partnered</td>
<td>35.2</td>
<td>3.5**</td>
<td>55.9*</td>
</tr>
<tr>
<td>Singles</td>
<td>36.4</td>
<td>12.9</td>
<td>67.5</td>
</tr>
<tr>
<td>N</td>
<td>1057</td>
<td>1057</td>
<td>1051</td>
</tr>
<tr>
<td>Higher Income</td>
<td>37.7^</td>
<td>4.5^</td>
<td>58.1</td>
</tr>
<tr>
<td>Low Income</td>
<td>31.6</td>
<td>7.2</td>
<td>56.9</td>
</tr>
<tr>
<td>N</td>
<td>955</td>
<td>955</td>
<td>953</td>
</tr>
<tr>
<td>Not Depressed</td>
<td>35.1</td>
<td>4.8*</td>
<td>55.8**</td>
</tr>
<tr>
<td>Depressed</td>
<td>38.3</td>
<td>9.8</td>
<td>74.6</td>
</tr>
<tr>
<td>N</td>
<td>1030</td>
<td>1030</td>
<td>1026</td>
</tr>
<tr>
<td>Planners</td>
<td>37.2^</td>
<td>4.6^</td>
<td>57.8</td>
</tr>
<tr>
<td>Non-planners</td>
<td>31.9</td>
<td>7.6</td>
<td>62.3</td>
</tr>
<tr>
<td>N</td>
<td>937</td>
<td>937</td>
<td>934</td>
</tr>
<tr>
<td>Not Retired</td>
<td>35.2</td>
<td>5.7</td>
<td>59.5*</td>
</tr>
<tr>
<td>Retired</td>
<td>37.2</td>
<td>3.0</td>
<td>49.4</td>
</tr>
<tr>
<td>N</td>
<td>1050</td>
<td>1050</td>
<td>1046</td>
</tr>
</tbody>
</table>

^ p=<.1; * p=<.05; **p=<.001
Source: NWAHS TFU Survey 2 (CATI), 2007

6.6.2 Perceived Constraints to Adopting Healthy Lifestyles

As noted in Chapter 3, there is a substantial body of research that supports the importance of healthy lifestyles (Rowe and Kahn 1997; Wagner 1997; Jorm et al. 1998; McMurdo 2000; Mukamal and Vaillant 2001; Vaillant 2003; Roger 2009); however, it is equally true that there has been a neglect of the structural constraints that impede the adoption of such lifestyles, with these constraints affecting some groups more than others (Dannefer and Uhlenberg 1999; Kelley 2009). To explore this dimension of health, respondents were asked to identify factors that made it difficult for them to achieve a healthy and balanced life as they grew older. As shown in Figure 6.16, for the cohort as a whole, the most common constraints were lack of...
time (49.1 per cent), insufficient money (38.1 per cent), multiple commitments (36.8 per cent) and lack of motivation or energy (29.9 per cent). Around 21 per cent did not find it difficult to make lifestyle changes and a further 15.6 per cent had not thought about making changes.

**Figure 6.16: Constraints to Making Positive Lifestyle Changes – Baby Boomers 1946-1965**

Although there were no significant gender differences in relation to these constraints there were significant differences between the earlier and later cohorts and between other subgroups within the cohort. As shown in Figure 6.17, those in the 1956-65 cohort were more likely to cite all factors except for housing insecurity and lack of motivation/energy as a constraint. By contrast, the 1946-55 cohort was significantly more likely to state that they didn’t find it difficult to make changes – 26.3 per cent compared to 14.7 per cent of the 1956-65 cohort.
Figure 6.17: Constraints to Making Positive Lifestyle Changes – 1946-55 and 1956-65 Cohorts

* $p$ value $<=$ .05; ** $<=$ .001
Note: Based on multiple response question. Per cent = per cent of cases
Source: NWAHS TFU Survey 2 (Postal/online), 2007

Figure 6.18 shows differences in the constraints experienced by at-risk and mainstream groups. With the exception of the retired, nearly all at-risk groups were more likely than the mainstream to cite financial constraints and generally less likely to cite time constraints. Notable exceptions to this were the depressed and non-planning groups both of which were just as likely as their mainstream counterparts to nominate lack of time. Psychosocial constraints were also more common in the at-risk groups, with the depressed, singles and low income groups being more likely to nominate stress, the depressed and singles to nominate lack of motivation and non-planners to nominate lack of knowledge. The retired clearly experienced the least constraints with this being largely explained by their different stage in the lifecycle. Virtually all of the retired were in the 1946-55 cohort and hence were less likely to have work, family and mortgage commitments experienced by those who had not retired. However, the fact that they were no more likely to experience financial constraints also suggests that most felt they were able to retire because they had sufficient assets and financial security.
The depressed group experienced substantially more constraints than other at-risk groups because they faced a similar level of time constraints to the mainstream in addition to the greater financial and psychosocial constraints generally experienced by the at-risk groups. Non-planners and the depressed were also more likely than their mainstream counterparts to find it difficult to make changes. Around 15 per cent of the cohort had not thought about making changes but the only group significantly less likely to have done so was the non-planning group - 21.3 per cent of non-planners compared to 11.2 per cent of planners.

6.6.3 Perceived Constraints to Physical Activity

In Chapter 5 it was noted that baby boomers generally placed more emphasis on the importance of lifestyle factors that related to physical health. Figure 6.19 shows that these trends are to some extent reproduced in relation to perceptions about the benefits of regular
exercise, with a high proportion of baby boomers associating exercise with improvements to physical health, and progressively smaller proportions associating it with psychological and social benefits. The ranked order of benefits, and the proportions nominating each benefit, followed a similar pattern for all subgroups however, there were also distinct variations between at-risk and mainstream groups. Although 80-90 per cent of all groups perceived exercise as providing physical benefits, lower proportions of all at-risk groups believed that exercise was important for improving health and reducing the risk of disease, with this being statistically significant for the retired (.005) and the depressed (.033) and approaching significance for non-planners (.087). In addition, the retired were less likely to believe that it built muscle (.082), assisted weight loss (.039) or improved heart and lung fitness (.001).

Figure 6.19: Perceptions of Benefits of Regular Exercise – Baby Boomers 1946-1965

There was a general trend for higher proportions of the at-risk groups to perceive exercise as conferring social and psychological benefits and for higher proportions of mainstream groups to perceive it as conferring physical health benefits and as helping them to do better at their job. For instance, between 6-8 per cent more of all at-risk subgroups perceived exercise as a means of meeting new people while the depressed were also more likely to perceive it as helping them to feel more attractive (.017). Overall, as shown in Figure 6.20, the retired group
had the lowest expectations of exercise with a smaller proportion in each of the physical benefits categories and also in one of the psychological benefit categories.

**Figure 6.20: Comparison of Retired and Not-Retired Groups – Perceptions of Benefits of Exercise**

*\(p<0.05; \quad **p<0.001\)

Note: Based on multiple response question. Per cent=per cent of cases

Source: NWAHS TFU Survey 2 (Postal/online), 2007

Exercise is a potent protective factor for ageing well as it contributes to better physical health, assists in the maintenance of physical and cognitive functioning, and improves mental health outcomes (Dunn et al. 2005; Hillsdon et al. 2005; Peel et al. 2005; Wolin et al. 2007). In addition, through its impact on functioning and mobility, it facilitates social interaction and active engagement in a range of domains. Hence, the retired group’s much lower expectation of exercise is a matter of some concern, particularly as they rank second among the at-risk groups in terms of physical health. Despite the fact that the retired are less likely to experience the time constraints that are a frequently cited barrier to physical activity, only 37.2 per cent exercise at a level that is considered sufficient, just two per cent more than those who are not retired.

The top 10 factors that baby boomers perceived as constraints to physical activity are shown in Figure 6.21. Although lack of time (37.2) was the most frequently cited factor, this was closely followed by lack of self-discipline (33.3), lack of energy (27.2), lack of interest (20.1),
and lack of enjoyment (18.5), suggesting motivational factors are a key barrier to exercise. External resources such as lack of money or lack of access to facilities appeared to exert less influence over the extent to which baby boomers exercised.

**Figure 6.21: Constraints to Physical Activity – Baby Boomers 1946-1965**

<table>
<thead>
<tr>
<th>Constraint</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of time</td>
<td>30%</td>
</tr>
<tr>
<td>Poor self-discipline</td>
<td>25%</td>
</tr>
<tr>
<td>Lack of energy</td>
<td>20%</td>
</tr>
<tr>
<td>Lack of interest</td>
<td>15%</td>
</tr>
<tr>
<td>Lack of enjoyment</td>
<td>10%</td>
</tr>
<tr>
<td>Lack of company</td>
<td>5%</td>
</tr>
<tr>
<td>Lack of good health</td>
<td>5%</td>
</tr>
<tr>
<td>Poor access to facilities</td>
<td>5%</td>
</tr>
<tr>
<td>Lack of money</td>
<td>5%</td>
</tr>
<tr>
<td>Self conscious looks</td>
<td>5%</td>
</tr>
</tbody>
</table>

Note: Based on multiple response question. Per cent=per cent of cases
Source: NWAHS TFU Survey 2 (Postal/online), 2007

However, as shown in Figure 6.22 and Figure 6.23, barriers continued to vary by subgroup. Figure 6.22 shows that the degree to which lack of time was a constraint followed the same pattern as for constraints to making general lifestyle changes. However, at-risk groups were more likely to face structural constraints such as lack of money and poor access to facilities and were also more likely to nominate lack of knowledge. Figure 6.23 shows that motivational constraints, such as lack of self-discipline and lack of energy, were similar for most groups. However, most at-risk groups were more likely than the mainstream to cite poor health and social barriers, such as lack of company, as constraints. The major constraint for the retired was poor health, in all other respects they were similar to mainstream groups. The depressed and non-planners, in addition to experiencing time constraints at a level similar to their mainstream counterparts, were also more likely to nominate lack of energy while they were also more likely to cite discouragement (not shown). The depressed group clearly experienced a greater range of structural, social and personal barriers than any other group.
**Figure 6.22: Constraints Related to Time, Finances, Facilities and Knowledge**

– At-Risk and Mainstream Subgroups

<table>
<thead>
<tr>
<th>Mainstream</th>
<th>Not Retired</th>
<th>Partnered</th>
<th>&gt;$40</th>
<th>Planners</th>
<th>Not Depressed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>At Risk</th>
<th>Retired</th>
<th>Singles</th>
<th>&lt;$40,000</th>
<th>Not Planners</th>
<th>Depressed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Based on multiple response question. Per cent=per cent of cases
Source: NWAHS TFU Survey 2 (Postal/online), 2007

**Figure 6.23: Constraints Related to Motivation, Energy, Health and Lack of Company**

– At-Risk and Mainstream Subgroups

<table>
<thead>
<tr>
<th>Mainstream</th>
<th>Not Retired</th>
<th>Couples</th>
<th>High Income</th>
<th>Planners</th>
<th>Not Depressed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>At Risk</th>
<th>Retired</th>
<th>Singles</th>
<th>Low Income</th>
<th>Not Planners</th>
<th>Depressed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Based on multiple response question. Per cent=per cent of cases
Source: NWAHS TFU Survey 2 (Postal/online), 2007
6.7 Private Health Insurance in the Baby Boom Cohort

Private health insurance was fairly widespread across the sample with 68.5 per cent having some form of private cover. As shown in Table 6.17, this is somewhat higher than percentages for similar age groups in the 2007-08 NHS (ABS 2009b). Although NWAHS participants were not asked why they purchased or did not purchase cover, NHS responses indicate that the most common reason for taking out private cover is ‘Security or protection or peace of mind’ and the most common response for not taking out cover is ‘Cannot afford it/too expensive’ (ABS 2009b).

Table 6.17: Private Health Insurance – NWAHS compared with NHS Results

<table>
<thead>
<tr>
<th>Private Health Cover</th>
<th>NWAHS 2004-06 1956-65 Cohort (aged 39-48) %</th>
<th>NWAHS 2004-06 1946-55 Cohort (aged 49-58) %</th>
<th>NHS 2007-08 Age 45-54 %</th>
<th>NHS 2007-08 Age 55-64 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital only</td>
<td>4.8</td>
<td>3.3</td>
<td>7.9</td>
<td>9.6</td>
</tr>
<tr>
<td>Ancillary only</td>
<td>6.8</td>
<td>4.1</td>
<td>3.7</td>
<td>2.9</td>
</tr>
<tr>
<td>Both</td>
<td>51.6</td>
<td>61.6</td>
<td>46.9</td>
<td>49.1</td>
</tr>
<tr>
<td><strong>Total with cover</strong></td>
<td><strong>63.3 (n=247)</strong></td>
<td><strong>69.0 (n=258)</strong></td>
<td><strong>59.0</strong></td>
<td><strong>62.0</strong></td>
</tr>
<tr>
<td>No Private Cover</td>
<td>36.7</td>
<td>31.0</td>
<td>41.0</td>
<td>38.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0 (n=391)</strong></td>
<td><strong>100.0 (n=374)</strong></td>
<td>100.0(^1)</td>
<td>100.0(^1)</td>
</tr>
</tbody>
</table>

\(^{n}\) was not supplied in the data table

Source: NWAHS Stage 2 Survey; ABS 2009b:39

Although the rate of coverage is quite high in the NWAHS sample there is still a considerable proportion with no or partial cover; however, there were no significant differences based on gender or between earlier and later cohorts in relation to having some form of cover. Figure 6.24 shows that singles, non-planners and those on a low income were the least likely to have any form of PHI. This is consistent with research cited in Section 6.3 in which having PHI was associated with higher SES (Banks et al. 2009). The majority of those who were insured had both hospital and extras cover. This was the case for both at-risk and mainstream groups; however, the 1956-65 cohort was significantly less likely (.049) to have hospital and extras cover, and more likely to only have extras cover, than the 1946-55 cohort.
The high cost of PHI is clearly a barrier for members of at-risk groups and they are also the most likely to need its support in the future. Although the comparatively high levels of PHI in the depressed and retired groups is a positive finding, they may find this difficult to maintain, as research shows that PHI membership decreases in the 65 and over age group, with this most likely to occur for those with lower SES characteristics (Temple 2006; Banks et al. 2009). Government policies, such as Life Time Health Cover and PHI rebates may well have encouraged or facilitated the purchase of PHI for those in the middle and upper income brackets, but are likely to have little effect on those with lower incomes. Despite the introduction of Life Time Health Cover, fewer members of the 1956-65 cohort have hospital cover and, in view of the penalties imposed by this policy, it is possible that a smaller proportion of this cohort will have PHI when they reach later life. A recent international
survey\textsuperscript{22} suggests that the needs of those with chronic or complex conditions are not being adequately met by Australia’s current health system, with results showing that Australia had the highest percentage of patients who felt that the health system needed fundamental changes (Schoen et al. 2009). On a slightly more positive note, Australian patients were less likely than those in Germany or the US to think the system needed to be totally rebuilt. However, apart from the US, Australian patients were significantly more likely than all patients from other countries to have out-of-pocket medical expenses of more than US $1000 in the last year (Schoen et al. 2009).

\section*{6.8 Conclusion}

This chapter has shown that the health resources of this cohort could be improved. Just over half of NWAHS baby boomers have at least one chronic condition and around three-quarters have at least two or more risk factors. In the 1946-55 cohort the cumulative impact of lifestyle risk factors is already beginning to translate into biomedical risk and chronic conditions. Although this is less evident in the younger cohort, their high levels of obesity and low levels of physical activity may presage an even higher level of chronic illness in this cohort as they continue to move through the age structure. Generally, baby boomers’ health conforms to expected gender and age patterns although the presence of significant gender differentiation in the 1946-55 cohort, and its absence in the 1956-65 cohort, is noteworthy. This may indicate that gender differences become more distinct as age progresses or, alternatively, it may be an effect of social change reflected in the increased convergence of the lifestyle patterns of males and females. The fact that older women are more likely than men to have multiple chronic conditions suggests that their ability to remain independent and in their own home is also more likely to be compromised. This, combined with the longer life expectancies of women, and their increased likelihood of solo living in later life, has policy implications for the provision

\textsuperscript{22} The survey included the following OECD countries: Australia, Canada, France, Germany, the Netherlands, New Zealand, the United Kingdom and the United States.
of care and community services and also indicates a need for a focus on secondary prevention in this group. The health resources of at-risk groups are clearly lower than those of mainstream groups in terms of both self-protection and self-insurance, with at-risk groups having more chronic conditions, being less likely to have PHI, and experiencing more constraints to the adoption of healthy lifestyles.

The chapter has also demonstrated that the effectiveness of public protection for older individuals with poor health could be improved. Although all individuals can access medical assistance in the event of an acute condition, timely access to treatment for non-acute conditions is not assured and can involve considerable out-of-pocket expenses, particularly for those who do not have PHI. This disproportionately affects at-risk groups who are more likely to have poor health and, as subsequent chapters will show, are also more likely to experience disadvantage in a range of non-health related areas. This situation may improve if recent reforms, flagged through the National Preventative Agency, the National Health and Hospitals Network Agreement (Council of Australian Governments 2010) and the National Primary Health Care Strategy (DOHA 2010b), deliver the promised improvements. For instance, proposed reforms, such as the 2012 target to have 95 per cent of patients given elective surgery within the clinically recommended time (Kirby 2010), and more effective primary health care, would reduce the inequities that currently exist for those who cannot afford PHI. The next chapter continues the analysis of self-protection in this cohort and considers the psychosocial resources they will bring to later life and their potential to remain actively engaged.
Chapter 7: Active Engagement

Old age is full of enjoyment if you know how to use it (Seneca, 4 B.C.-A.D. 65).

Vaillant 2003:219

7.1 Introduction

In Rowe and Kahn’s (1997) model of successful ageing, active engagement is constituted by productive and social engagement. Similarly, government policies on ageing tend to emphasise productive engagement, expressed through work, volunteering and care-giving, over personally meaningful engagement that makes no obvious social contribution. The capacity for productive engagement is considered to be primarily dependent on physical and cognitive health and functionality (Rowe and Kahn 1997), hence it is not surprising that more importance is generally attached to exercise, diet and weight than to friends or having ‘a curiosity and passion for life’ (Chapter 5). However, there is increasing evidence to suggest that social relationships, creativity, playfulness and personally meaningful pursuits may contribute to physical health in addition to being integral to the experience of well-being in older age (Rowe and Kahn 1997; Pinquart 2002; Ranzijn 2002; Vaillant 2003; Fratiglioni et al. 2004; Fried et al. 2004; Ryff 2004; Bennett et al. 2006). Hence, while this chapter has a strong focus on productive activity, it also pays attention to the social and ‘meaningful engagement’ domains. Based on baby boomers’ current resources and activity patterns, the chapter explores their potential for future engagement. Inevitably, this will be influenced by their health status as discussed in Chapter 6. This chapter begins by examining employment patterns, attitudes to working in later life, volunteering and care-giving and then shifts the focus to social support and interaction. The final section briefly examines engagement that is more individual and personal in nature.
7.2 Productive Engagement

Productive activity is defined here as any activity that produces an economic value as opposed to personally meaningful activities in which the prime objective is satisfaction, enjoyment or personal development. As noted in Chapter 3, the productive activity of older people is a prime focus of policies designed to manage impacts of structural ageing and is framed as providing both personal and societal benefits.

7.2.1 Changes in Labour Force Status Over Time

The Australian labour force environment has altered considerably over the last three decades. Key changes include the increased participation of females, reduced participation of males, a structural shift in the composition of employment towards older workers, a shift in emphasis from the manufacturing to the services sector, increased flexibility, and a shift away from permanent full-time employment towards casual, contract and part-time work (McDonald and Evans 2003; Richardson and Zhang 2009). In addition, it has been predicted that the demand for cognitive and interactive skills will increase while demand for motor skills and physical capacity will decrease (Hugo et al. 2009). These changes have implications for the capacity to accumulate retirement savings and for the type of work available to baby boomers as they grow older. Table 7.1 compares the employment status of those aged 45-54 in 1981 with baby boomers the same age in 2006 and shows that around 5 per cent more baby boomers were employed at this age than the previous generation. However, this is primarily due to the much higher percentage of females in employment (18.8 per cent more). The percentage of males in employment has actually decreased by around 9 per cent.

<table>
<thead>
<tr>
<th></th>
<th>1981 Aged 45-54</th>
<th>2006 Aged 45-54</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males %</td>
<td>Females %</td>
</tr>
<tr>
<td>Employed</td>
<td>88.47</td>
<td>50.46</td>
</tr>
<tr>
<td>Unemployed</td>
<td>2.86</td>
<td>1.43</td>
</tr>
<tr>
<td>Not in Lab Force</td>
<td>8.68</td>
<td>48.11</td>
</tr>
<tr>
<td>Not Stated</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>749 100</td>
<td>719 200</td>
</tr>
</tbody>
</table>

Source: ABS, 1981b; ABS, 2006b
As Table 7.2 shows, not only are baby boomer women working more than their predecessors, but those who do work are spending more hours in the paid labour force. Although the increased labour participation of women acts as a counter to the impact of structural ageing on labour force growth (Hugo et al 2009) it also has implications for work-life balance and for the availability of women as informal carers.

Table 7.2: Hours Worked by 45-54 Year-Olds in 1981 and 2006

<table>
<thead>
<tr>
<th>Hours Worked</th>
<th>1981 Census - Aged 45-54</th>
<th>2006 Census - Aged 45-54</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males %</td>
<td>Females %</td>
</tr>
<tr>
<td>0 hours worked</td>
<td>13.9</td>
<td>52.8</td>
</tr>
<tr>
<td>1-15</td>
<td>1.9</td>
<td>5.8</td>
</tr>
<tr>
<td>16-24</td>
<td>1.6</td>
<td>7.2</td>
</tr>
<tr>
<td>25-34</td>
<td>3.1</td>
<td>5.7</td>
</tr>
<tr>
<td>=&gt;35</td>
<td>79.6</td>
<td>28.6</td>
</tr>
<tr>
<td>Total</td>
<td>721 000</td>
<td>694 200</td>
</tr>
</tbody>
</table>

Note: Excludes not stated
Source: ABS, 1981b; ABS 2006b

### 7.2.2 Labour Participation in NWAHS Baby Boomers

Figure 7.1 shows that the majority of baby boomers were in full-time paid employment, however, a significant proportion were part-time (16.6 per cent) casual (7.3 per cent), home duties (5.3 per cent) or retired (7.5 per cent). The majority of the remainder were either unable to work (4.1 per cent) or unemployed (2.6 per cent). Around 27.6 per cent of baby boomers undertook volunteer work with the mean volunteer hours in the last week being 6.8 (SD: 6.63).

**Figure 7.1: Employment Status and Volunteering – Baby Boomers 1946-1965**

*Source: NWAHS TFU Survey 2 (CATI), 2007*
Table 7.3 shows the employment status of respondents from the NWAHS by cohort and by gender. Not surprisingly, females were more likely to be in the part-time, casual and home duties categories and less likely to be full-time. Members of the 1946-55 cohort were less likely to be working full-time and more likely to be retired or unable to work, with this likely to be an age effect.

### Table 7.3: Employment Status by Each Baby Boomer Age Cohort and by Gender

<table>
<thead>
<tr>
<th>Employment Status</th>
<th>Age Cohort</th>
<th>P value</th>
<th>Gender</th>
<th>P value</th>
<th>All Baby Boomers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1946-55 n=495</td>
<td>1956-65 n=563</td>
<td></td>
<td></td>
<td>1946-65 n=1058</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Full-time</td>
<td>46.6</td>
<td>64.9</td>
<td>.000</td>
<td>75.3</td>
<td>38.5</td>
</tr>
<tr>
<td>Part-time</td>
<td>16.7</td>
<td>16.6</td>
<td>.967</td>
<td>5.1</td>
<td>27.5</td>
</tr>
<tr>
<td>Casual</td>
<td>6.9</td>
<td>7.6</td>
<td>.634</td>
<td>5.4</td>
<td>9.0</td>
</tr>
<tr>
<td>Unemployed</td>
<td>3.1</td>
<td>2.1</td>
<td>.319</td>
<td>3.4</td>
<td>1.8</td>
</tr>
<tr>
<td>Retired</td>
<td>15.4</td>
<td>.5</td>
<td>.000</td>
<td>6.2</td>
<td>8.7</td>
</tr>
<tr>
<td>Home Duties</td>
<td>4.3</td>
<td>6.1</td>
<td>.188</td>
<td>.4</td>
<td>9.8</td>
</tr>
<tr>
<td>Unable to Work</td>
<td>6.0</td>
<td>2.5</td>
<td>.003</td>
<td>3.9</td>
<td>4.4</td>
</tr>
</tbody>
</table>

1Note: Volunteers (n=5) & students (n=3) excluded due to low numbers.

Source: NWAHS TFU Survey 2 (CATI), 2007

However, as Table 7.4 shows, cohort differences were mediated by gender. Although both males and females in the 1946-55 cohort were less likely to be working full-time and more likely to be retired, only 1946-55 males were more likely to be in the unable to work category. In addition, 1946-55 males approached significance for being more likely to be part-time than 1956-65 males, but this was not the case for 1946-55 females who, apart from the higher proportion in the retired category, had a similar employment status to their counterparts in the 1956-65 cohort.

### Table 7.4: Employment Status of Males and Females in Each Baby Boomer Age Cohort

<table>
<thead>
<tr>
<th>Employment Status</th>
<th>Males</th>
<th>Females</th>
<th>All Baby Boomers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1946-55 n=236</td>
<td>1956-65 n=277</td>
<td></td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>P value</td>
</tr>
<tr>
<td>Full-time</td>
<td>62.8</td>
<td>86.0</td>
<td>.000</td>
</tr>
<tr>
<td>Part-time</td>
<td>7.2</td>
<td>3.4</td>
<td>.055</td>
</tr>
<tr>
<td>Casual</td>
<td>5.2</td>
<td>5.6</td>
<td>.827</td>
</tr>
<tr>
<td>Unemployed</td>
<td>3.7</td>
<td>3.2</td>
<td>.751</td>
</tr>
<tr>
<td>Retired</td>
<td>13.3</td>
<td>.3</td>
<td>.000</td>
</tr>
<tr>
<td>Home Duties</td>
<td>.0</td>
<td>.8</td>
<td>.502</td>
</tr>
<tr>
<td>Unable to Work</td>
<td>7.1</td>
<td>1.1</td>
<td>.000</td>
</tr>
</tbody>
</table>

1Note: Volunteers (n=5) & students (n=3) excluded due to low numbers.

Source: NWAHS TFU Survey 2 (CATI), 2007
Table 7.5 shows the number of hours respondents spent in paid work by cohort and gender. As would be expected from the participation rates shown above, slightly higher proportions of the 1956-65 cohort worked longer hours. Of particular interest is the high proportion of males who worked 50 or more hours per week, suggesting that work-life balance could well be an issue for baby boomer males in full-time employment.

### Table 7.5: Hours in Paid Work by Age Cohort, by Gender and by all Baby Boomers

<table>
<thead>
<tr>
<th>Hours in Paid Work</th>
<th>Age Cohort</th>
<th>Gender</th>
<th>All Baby Boomers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1946-55</td>
<td>1956-65</td>
<td>Males</td>
</tr>
<tr>
<td>0 hours worked</td>
<td>8.2</td>
<td>5.5</td>
<td>6.5</td>
</tr>
<tr>
<td>1 hour or more</td>
<td>91.7</td>
<td>94.5</td>
<td>93.5</td>
</tr>
<tr>
<td>Total</td>
<td>342</td>
<td>494</td>
<td>435</td>
</tr>
<tr>
<td>1-15</td>
<td>8.9</td>
<td>7.2</td>
<td>3.7</td>
</tr>
<tr>
<td>16-24</td>
<td>10.6</td>
<td>9.2</td>
<td>2.8</td>
</tr>
<tr>
<td>25-34</td>
<td>15.9</td>
<td>14.5</td>
<td>7.6</td>
</tr>
<tr>
<td>35-39</td>
<td>19.6</td>
<td>20.7</td>
<td>20.7</td>
</tr>
<tr>
<td>40 hours</td>
<td>17.5</td>
<td>15.6</td>
<td>19.8</td>
</tr>
<tr>
<td>41-49</td>
<td>10.8</td>
<td>15.4</td>
<td>18.4</td>
</tr>
<tr>
<td>50 hours or more</td>
<td>16.7</td>
<td>17.4</td>
<td>27.0</td>
</tr>
<tr>
<td>Total</td>
<td>314</td>
<td>464</td>
<td>404</td>
</tr>
</tbody>
</table>

Source: NWAHS TFU Survey 2 (CATI), 2007

When asked about whether they were planning for later life 10.8 per cent of respondents identified themselves as ‘already retired’. However, the responses of this group to the employment status question (Appendix 4.16) revealed that 34 per cent undertook some kind of paid work or considered themselves to be unemployed or unable to work. Of these, 8 per cent were part-time or casually employed and hence may simply have been continuing with work they enjoyed or were choosing to supplement their retirement income. However, it is likely that for the 17.2 per cent who nominated ‘unemployed’ or ‘unable to work’, the decision to retire was a result of push rather than pull factors. This supposition is further supported by the fact that 44.9 per cent of those who identified themselves as ‘already retired’ were in receipt of a government pension. Indeed, this may be an underestimation, as pension data was last collected in Stage 2 (May 2004-Feb 2006), 1½ to 3½ years prior to the TFU Survey 2 (2007) in which the retirement classification question was asked. Based on Stage 2 data, a cross tabulation of those who classified themselves as retired in the employment status variable with those who were also on a government pension, shows that 62.1 per cent of the retired were also on a pension (Table 7.6)
Table 7.6: Employment Status by Government Pension – Baby Boomers 1946-1965

<table>
<thead>
<tr>
<th></th>
<th>Full-time %</th>
<th>P/time/Cas %</th>
<th>Unemployed %</th>
<th>H/Duties %</th>
<th>Retired %</th>
<th>Stud/Other %</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pension</td>
<td>1.8</td>
<td>13.5</td>
<td>60.2</td>
<td>38.5</td>
<td>62.1</td>
<td>82.2</td>
<td>.000</td>
</tr>
<tr>
<td>No Pension</td>
<td>98.2</td>
<td>86.5</td>
<td>39.8</td>
<td>61.5</td>
<td>37.9</td>
<td>17.8</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>661</td>
<td>275</td>
<td>33</td>
<td>124</td>
<td>46</td>
<td>45</td>
<td></td>
</tr>
</tbody>
</table>

Note: government pension does not include Family Allowance
Source: NWAHS Stage 2, 2004-2006

As these respondents were aged less than 60 years at the time data was collected and hence were ineligible for an Age Pension it means that most were in receipt of some other form of income support, such as Maternity Allowance, Disability Support Pension, or Carers’ Payment, but did not expect to become employed again. This echoes findings from earlier research and suggests that this trend has been present for several decades (Hugo, 1986b).

Given the tightening of eligibility requirements for the Disability Pension (Carson and Kerr 2003) these results also suggest that, for many in this cohort, early retirement may have been forced by ill-health or caring responsibilities. This is more likely to be the case for singles with more than half of the singles who classified themselves as retired in the TFU Survey placing themselves in an employment status category other than ‘retired’ and around a quarter of singles nominating the ‘unable to work’ category.

Respondents were also asked if they had experienced a significant block of time (>= 5 years) outside of the paid workforce. This was the case for 28.6 per cent of respondents, however, as Table 7.7 shows, this varied significantly by gender and cohort.

Table 7.7: Five or More Years Spent Out of the Paid Workforce by Age Cohort & by Gender

<table>
<thead>
<tr>
<th>Age Cohort</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1946-1955 %</td>
</tr>
<tr>
<td>Period out of the Workforce</td>
<td>34.2*</td>
</tr>
<tr>
<td>No Period out of the Workforce</td>
<td>65.8</td>
</tr>
<tr>
<td>Total</td>
<td>495</td>
</tr>
</tbody>
</table>

*p value= <.001
Source: NWAHS TFU Survey 2 (CATI), 2007

For females, the primary reason given for spending time out of the workforce was to raise children (86.2 per cent) while for males it was poor health (47.8 per cent) followed by unemployment (18.2 per cent). Reasons for spending time out of the workforce did not vary
significantly by cohort, although the proportion citing poor health was 6 per cent higher in the 1946-55 cohort.

Figure 7.2 shows that there were significant differences in the extent to which non-retired at-risk groups were engaged in activity. All at-risk groups, except for singles, were significantly less likely to be in full-time employment than their mainstream counterparts.

**Figure 7.2: Employment Status – At-risk & Mainstream Subgroups**

Reduced engagement in employment was particularly evident for the low income and depressed groups, with these having the highest proportions in the unable to work and casual categories. However, non-planners were also less engaged in the workforce and were significantly more likely than their planning counterparts to be in the casual or home duties categories. Although the full-time employment rate of singles was nearly equivalent to that of couples, those who were not full-time were more likely to be in a precarious employment category. That is, they were less likely to be part-time and more likely to be casual, unemployed, or unable to work. Those on a low income were the least likely to be full-time and, compared to their higher income counterparts, were statistically significantly more likely to be in the unemployed, casual, home duties, retired and unable to work categories. The
depressed group had a similar employment profile, although they were not significantly more likely to be retired or undertaking home duties.

These differences are, in part, explained by the different educational levels shown in Figure 7.3. For instance, singles and couples, who had almost identical rates of full-time employment, also had very similar levels of education. By contrast, those in the low income group were more likely than their higher income counterparts to have a secondary rather than a tertiary level of education. In addition, they stood out from the other at-risk groups, all of which had higher proportions with tertiary and lower proportions with secondary education than the low income group. Non-planners and depressed groups had similar levels of tertiary education to mainstream groups, but were still at a disadvantage in the labour market because they had markedly lower proportions with trade or diploma qualifications. Although education is clearly one explanation for lower labour participation, particularly for the low income group, variations in the home duties and unable to work categories suggest that participation levels for at-risk groups are also likely to be influenced by other factors, such as health and family commitments.

**Figure 7.3: Education Levels of Low Income, Non-planning and Depressed Subgroups**

![Image of bar chart showing education levels for different subgroups]

*p<0.05; **p<0.001  
Source: NWAHS, Stage 2, 2004-06
7.2.3 Inten tions to Work Part-time in Later Life

Research suggests that many baby boomers desire a phased transition into retirement within their current occupation (Jackson et al. 2006a), however, this pattern also appears to be influenced by socio-economic status (Quine, Bernard et al. 2006) and gender (Everingham et al. 2007; Warner-Smith et al. 2006). Preferences for a phased retirement rather than a more traditional abrupt transition have been shown to be more common among high income earners who wish to continue working provided they have the flexibility to pursue new interests (Hamilton and Hamilton 2006; Onyx and Baker 2006). Conversely, low income earners are more likely to prefer a distinct transition from work to leisure (Hamilton and Hamilton, 2006). Those with a higher socio-economic status may choose to work part-time in retirement because of the satisfaction it brings while those in lower socio-economic groups may be more likely to do so out of financial necessity (Quine et al. 2006). As shown in Figure 7.4, a considerable proportion of baby boomers intend to work part-time in retirement.

Figure 7.4: Working Part-time in Later life – Baby Boomers 1946-1965

![Bar chart showing percentage of baby boomers intending to work part-time in retirement](image)

Note: n=691 (excludes non-planning group as they were not asked this question)
Source: NWAHS TFU Survey 2 (CATI), 2007

This finding contrasts with the very low percentage of baby boomers identifying work as a source of income in retirement (Chapter 9) and suggests that the hours per week baby boomers expect to work might be quite limited in number or that part-time work in retirement is seen as a short term strategy to ease the initial transition to retirement. As noted in Chapter 5, this
accords with findings from the ASRAM study (Jackson and Walter 2007a) in which a significant minority of baby boomers perceived part-time work as a way of reducing workforce participation prior to retirement, rather than as a means of extending working life. Findings from the ASRAM also indicated that income is not a primary motivator for remaining in the workforce, with most baby boomers seeking ‘... a phased and meaningful transition to retirement, ...’ in which part-time work offers non-monetary rewards such as the opportunity to mentor younger generations (Jackson et al. 2006a), or provides a means of structuring daily life (Quine et al. 2006). Figure 7.5 shows that the intention to work part-time was differentiated by cohort, gender, retirement status and income.

**Figure 7.5: Intention to Work Part-time in Later Life – Selected Baby Boomers 1946-65**

![Bar chart showing intention to work part-time by cohort, gender, retirement status, and income](image)

* p<0.05; ** p<0.001
Source: NWAHS TFU Survey 2 (CATI), 2007

Although there appears to be a significant difference in the work intentions of the two cohorts, this disappears if retirees are excluded from the cohort comparison. The extremely large difference between the percentage of the not retired group who intended to work part-time and the percentage of the retired who do work part-time is noteworthy and has several possible explanations. As noted earlier, the high proportion of retirees on some form of government pension suggests that a key explanation is likely to be poor health, or personal circumstances that constrain the ability to work. However, this is likely to be only one factor in the equation. For instance, the depressed group had a higher percentage with poor health than the retired.
group, and yet nearly 50 per cent of the depressed to work part-time in retirement compared to only 19 per cent of the retired. Home ownership is also likely to be an influential factor as the retired group had significantly higher rates of home ownership than other groups. Equally, findings from consultations conducted as part of the Pension Review demonstrate that income test settings on the Age Pension offer little financial incentive to work (Harmer 2009)\(^\text{23}\). Another explanation of the difference between the intentions of the not retired and the retired may simply be that intentions formed some years prior to retirement may not be a good indicator of future action. The wide range of factors influencing the decision to extend workforce participation means that intentions are likely to alter in response to age, time and unforeseen circumstances such as the GFC. Two key reasons for working part-time in retirement are job satisfaction and financial need and it is possible that for those who become more financially secure as they move closer to retirement the incentive to work part-time is reduced, particularly if their job is not satisfying. Hence, as people move into retirement there may be an increasingly sharp differentiation between two quite distinct groups: those who work part-time because they love their work, and those who suffer financial hardship and have no choice. Those in the middle, who neither love their job nor are in dire financial straits, may find that neither the intrinsic nor extrinsic rewards of part-time work are a sufficient incentive.

The significant differences observed between low and high income groups, and males and females, are likely to reflect the dichotomy noted above. Those on a low income were significantly less likely to plan to work part-time than their higher income counterparts. Factors influencing this intention are likely to be explained by poorer labour market opportunities and poorer health (Quine et al. 2006), combined with a higher level of home ownership\(^\text{24}\) (Chapter 8). As noted in section 7.2.2, the current employment levels of this group are low with this largely explained by their lower levels of education and their under-representation in the higher level occupational categories (12 per cent employed as managers, 

\(^{23}\) This has to some extent been ameliorated by the introduction of the 'Work Bonus' – details contained in Appendix 6.1.

\(^{24}\) The low income group included a higher proportion of 1946 baby boomers and their higher levels of home ownership are partly explained by the fact that many would have entered the housing market when housing was more affordable.
professionals, associate professionals compared to 29.6 per cent in the higher income group). Both of these factors, together with inadequate and inappropriate opportunities for re-skilling (Brooke 2003) or rehabilitation of older workers (Hugo et al. 2009), mean that this group faces significant employment barriers. Hence low income workers who need to work part-time from financial necessity may expect that work will be difficult to obtain while the remainder may prefer full retirement to part-time employment in work that is not interesting or fulfilling (Hamilton and Hamilton 2006). For those in the latter category this choice is likely to be facilitated by outright ownership of their home. It is also worth noting that about 10 per cent more singles on a low income intended to work part-time than did couples. Although this was not statistically significant (.132), this may be due to the small size of the subsample (n=163) and analysis of a larger sample would be needed to verify this trend.

Females are much less likely to work part-time than males; however, consistent with the literature, females with tertiary levels of education were significantly more likely to work part-time in later life than those with lower education levels (Knox 2003; Warner-Smith et al., 2006). Despite this, even females in this category were much less likely to intend to work part-time than their male equivalents. Research suggests that the retirement decisions of women are frequently contingent on others and this is also likely to be the case with the intention to work part-time in retirement, with women often having greater family and caring commitments than men (Warner-Smith et al. 2006; Onyx and Baker 2006). However, it could also be related to the type of part-time employment opportunities open to women. For instance, Everingham et al. (2007) note that workplace flexibility was good for women with choices, but not so good for those with few choices who were financially vulnerable. For this group, part-time work frequently comprises low paid, multiple jobs or fragmented work commitments, which provide little income or job satisfaction (Everingham et al. 2007). Although women’s labour force participation has risen dramatically in recent decades, interruptions caused by childbirth and other family commitments mean that women are less likely than men to have developed a strong career and may therefore, have less attractive part-time work opportunities available to them. Hence, unless forced by circumstance, they may be more likely to pursue other options such as volunteering, study, socialising and meaningful leisure activities that are perceived as more fulfilling (Onyx and Baker 2006).
Volunteering and Care-giving

Volunteering is an important vehicle for community engagement and a means of building social capital (Putnam, 2000; Hugo et al. 2009). A number of studies have also shown it to have a range of benefits for the individual, ranging from improvements in physical and cognitive function to increased social support and social interaction (Fried et al. 2004; Wilson 2000). The proportion of WAHS baby boomers who volunteered was 27.6 per cent. Although ABS data shows that females consistently volunteer at higher levels than males (Hugo et al. 2009) there were no statistically significant gender differences in this sample. Similar percentages of the 1946-55 and 1956-65 cohorts volunteered but members of the 1946-55 cohort were more likely to devote more time to volunteering with the average number of hours per week being 7.97 for this cohort compared to 5.45 for the 1956-65 cohort (.006). Equally, there were no significant differences in volunteering rates between the at-risk and mainstream groups. Volunteering was associated with having a tertiary education (.000) and having less than three risk factors (.030). Education was more strongly associated with volunteering rates in mainstream groups, with the tertiary educated in every group, except for planners, being significantly more likely to volunteer than were those with only a secondary level education. However, in the at-risk groups the only significant association of volunteering with education was in the non-planning (.000) group.

Figure 7.6 shows that work status had some effect on volunteering with distinct peaks in volunteer rates for those who were retired or who undertook home duties; however, only those who were retired were significantly more likely to volunteer (.002). Also of interest is the fact that the percentage who volunteered in the unable to work category was on a par with the percentage of part-time and full-time employed who volunteered. The lowest rates of volunteering were in the casual and unemployed categories, a pattern that has been reported previously (Hugo et al. 2009). This suggests that the propensity to volunteer is mediated by factors other than time. One theory explains this trend with reference to the greater social integration gained through the work environment and its relative lack for those who are not very active in the labour force (Wilson 2000; Kraaykamp et al. 2009). However, given the trend to higher volunteering rates among those in the unable to work category, it is likely that
other factors are also at play. Volunteering can provide opportunities for skill development and be a pathway back into more secure employment (Hugo et al. 2009). Hence, identifying the reasons for the lower involvement of unemployed and casual workers would yield dividends for both the community and individuals.

**Figure 7.6: Relationship between Work Status and Volunteering – Baby Boomers 1946-1965**

![Bar chart showing relationship between work status and volunteering]

*p<0.05
Source: NWAHS TFU Survey 2 (CATI), 2007

Just over 12.4 per cent of respondents were in a long term care-giving role and this did not differ significantly by gender or cohort. Around 30 per cent provided full-time care and the remainder provided part-time care. The majority of full-time care-givers provided care for parents or parents in law (37.8 per cent) but this was closely followed by care for partner (28 per cent) and care for children (24.2 per cent). However, members of the 1946-55 cohort were significantly more likely (.034) to provide full-time care for their partner (44 per cent compared to 13.7 per cent in the 1956-65 cohort) while a higher proportion of the 1956-65 cohort provided full-time care to their children (33.6 per cent compared to 13.6 per cent in the 1946-55 cohort), with this reflecting previously established age-related patterns of care-giving.

25 Caregiving was defined as providing long term care for someone with a disability, or who is frail, aged, or who has a chronic mental or physical illness. Long term care was defined as either a minimum of 6 months which may extend for years, or they have just started a caring role which they anticipate will be ongoing.
(Schofield et al. 1997). In both cohorts, the majority of part-time care-givers provided care to parents or parents-in-law (56.1 per cent), followed by children (19.5 per cent) and partners (12.4 per cent). Support for the caring role primarily came from immediate family members (34.8 per cent), followed by siblings (23.8 per cent) and formal services (22.8 per cent). It is also noteworthy that 31.8 per cent received no support for their caring role, suggesting they either could not access the type of support they needed or did not feel the need for support.

7.3 Social Support and Interaction

Table 7.8 shows that a high proportion of the baby boomer cohort is likely to enter later life in a couple relationship and an even higher proportion have at least one child, with the median number of children being 2.00 (range 1). However, 10.9 per cent of the sample lived alone, with this likely to increase as the children of sole parents leave home and as mortality increases with the ageing of the cohort. Although the majority of baby boomers can look forward to some family support in later life, this will be mediated by a range of factors such as the quality of the familial and marital relationships (Day 1989; Rowe and Kahn 1997; Hughes and Waite 2002; Vaillant 2003), the geographical proximity of family, and the life circumstances of family members who might provide support (Putney and Bengtson, 2005).

Just over 60 per cent of baby boomers spent time with friends at least once a week and the average number of close friends was 4.03 (SD 2.28), with just over half (51.9 per cent) having four or more close friends. An average of 3.76 (SD 2.20) of these friends lived locally with only 3.3 per cent having no friends who lived locally. Most baby boomers felt a sense of community with others in their neighbourhood (63.5 per cent). Of those with a weak sense of community, 26.3 per cent commented that they were too busy or had a strong focus on work, family and friends, while 23.4 per cent liked to keep to themselves and were not interested in being part of a local community. Apart from the depressed, who were less likely to have a sense of community (0.023), there was little difference between at-risk and mainstream subgroups. However, at-risk groups varied from the mainstream across a range of other indicators for social support and interaction.
<table>
<thead>
<tr>
<th>Relationships</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>20.4</td>
</tr>
<tr>
<td>Married/de facto relationship</td>
<td>79.6</td>
</tr>
<tr>
<td>Total</td>
<td>1057</td>
</tr>
<tr>
<td>High Quality of marriage/de facto relationship</td>
<td>48.9</td>
</tr>
<tr>
<td>Neutral/low Quality of marriage/de facto relationship</td>
<td>51.1</td>
</tr>
<tr>
<td>Total</td>
<td>841</td>
</tr>
<tr>
<td><strong>Family Structure</strong></td>
<td></td>
</tr>
<tr>
<td>Family with children/couple</td>
<td>79.1</td>
</tr>
<tr>
<td>Living alone</td>
<td>10.9</td>
</tr>
<tr>
<td>Sole parent/shared parenting, living with other adults</td>
<td>10.0</td>
</tr>
<tr>
<td>Total</td>
<td>1057</td>
</tr>
<tr>
<td><strong>Children</strong></td>
<td></td>
</tr>
<tr>
<td>No children</td>
<td>11.1</td>
</tr>
<tr>
<td>Has children</td>
<td>88.9</td>
</tr>
<tr>
<td>Total</td>
<td>1057</td>
</tr>
<tr>
<td><strong>Number of children</strong></td>
<td></td>
</tr>
<tr>
<td>One</td>
<td>13.6</td>
</tr>
<tr>
<td>Two</td>
<td>51.1</td>
</tr>
<tr>
<td>Three</td>
<td>24.6</td>
</tr>
<tr>
<td>Four or more</td>
<td>10.7</td>
</tr>
<tr>
<td>Total</td>
<td>940</td>
</tr>
<tr>
<td><strong>Friends</strong></td>
<td></td>
</tr>
<tr>
<td>No close friends</td>
<td>4.1</td>
</tr>
<tr>
<td>Has close friend/s</td>
<td>95.9</td>
</tr>
<tr>
<td>Total</td>
<td>1036</td>
</tr>
<tr>
<td><strong>Number of close friends</strong></td>
<td></td>
</tr>
<tr>
<td>Three or less</td>
<td>48.0</td>
</tr>
<tr>
<td>Four or more</td>
<td>52.0</td>
</tr>
<tr>
<td>Total</td>
<td>1036</td>
</tr>
<tr>
<td><strong>Close friends who live locally</strong></td>
<td></td>
</tr>
<tr>
<td>Three or less</td>
<td>53.2</td>
</tr>
<tr>
<td>Four or more</td>
<td>46.8</td>
</tr>
<tr>
<td>Total</td>
<td>992</td>
</tr>
<tr>
<td><strong>Frequency of personal contact with friends</strong></td>
<td></td>
</tr>
<tr>
<td>Two or more times a week</td>
<td>31.9</td>
</tr>
<tr>
<td>Once a week</td>
<td>31.5</td>
</tr>
<tr>
<td>Once every couple of weeks</td>
<td>19.5</td>
</tr>
<tr>
<td>Once a month or less</td>
<td>16.2</td>
</tr>
<tr>
<td>Hardly ever or don’t socialize</td>
<td>1.0</td>
</tr>
<tr>
<td>Total</td>
<td>1036</td>
</tr>
<tr>
<td><strong>Sense of community</strong></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>21.8</td>
</tr>
<tr>
<td>Yes</td>
<td>61.8</td>
</tr>
<tr>
<td>Neutral</td>
<td>16.4</td>
</tr>
<tr>
<td>Total</td>
<td>1052</td>
</tr>
</tbody>
</table>

Source: NWAHS TFU Survey 2 (CATI), 2007
7.3.1 Marital Status, Children, and Living Arrangements

One characteristic found to be a predictor of ageing well in the Harvard Longitudinal Study of Adult Development was a warm and satisfying marital relationship (Vaillant 2003). Figure 7.7 shows that low income, depressed, singles, and non-planning groups were all significantly less likely to be married and more likely to have never married than the mainstream. In addition, low income, singles and non-planning groups were more likely to be divorced or separated, while low income, singles and retired groups were also more likely to be widowed.

Figure 7.7: Marital Status - At-risk and Mainstream Subgroups

Around 48 per cent of all baby boomers rated the quality of their relationship as high, 42.7 per cent as neutral and 8.4 per cent as low. As Figure 7.8 shows, with the exception of the retired, all at-risk groups reflected a trend towards less satisfactory relationships than mainstream groups. However, both low income and depressed groups were more likely to rate the quality of their relationship as low and the depressed were also less likely to rate the quality of their relationship as high.
Nearly 90 per cent of baby boomers had children and, as would be expected, couples were more likely to have children and to also have more children than singles. However, as Table 7.9 shows, the impact of divorce and changing social mores means that a large proportion of singles also had children. Nevertheless, singles will still have substantially less potential support from children than couples. Research also suggests that children of divorced couples may be less supportive to parents as they grow older, particularly in relation to providing support for the father (Millward 1997). Those who suffered from depression were also less likely to have children (.038), but there were no significant differences between other at-risk and mainstream groups. There was also no evidence of any substantial difference between any of the groups in relation to the mean number of children per person.

Table 7.9: The Availability of Children – Couples and Singles

<table>
<thead>
<tr>
<th></th>
<th>Couples</th>
<th>Singles</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has children</td>
<td>93.4</td>
<td>72.2</td>
<td>.000</td>
</tr>
<tr>
<td>Mean number of children (SD 1.15)</td>
<td>2.40</td>
<td>2.28</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: NWAHS TFU Survey 2 (CATI), 2007

Figure 7.9 summarises the significant differences between subgroups in relation to current living arrangements. Low income, depressed, singles and non-planning groups were much...
less likely to be living in an environment where there was the potential for socio-emotional and instrumental support. All of these groups were significantly more likely to be living alone and most also had higher proportions in the ‘sole parent’ and ‘living with related and unrelated adults’ categories.

**Figure 7.9: Living Arrangements - At-risk and Mainstream Subgroups**

<table>
<thead>
<tr>
<th>At Risk</th>
<th>Retired</th>
<th>Non Planners</th>
<th>Depressed</th>
<th>Low Income</th>
<th>Singles</th>
</tr>
</thead>
<tbody>
<tr>
<td>**p&lt;.05; **p&lt;.001</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mainstream</td>
<td>Not Retired</td>
<td>Planners</td>
<td>Not Depressed</td>
<td>Higher Income</td>
<td>Couples</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: NWAHS Telephone Follow Up Survey 2 (CATI), 2007*

### 7.3.2 Modes of Socialising

At-risk groups also varied from the mainstream in terms of social interaction. Singles were more likely to have more close friends than couples (.032) and to socialise more frequently (.014). In fact, singles stood out as a group with more close friends than any of the at-risk or mainstream groups. However, they were also significantly more likely than couples to express a desire to socialise more often (.000). By contrast, the depressed (.004) and low income groups (.013) were more likely to have fewer friends than their mainstream counterparts, but there was no evidence to indicate they socialised less frequently and they were no more likely than the rest of the population to wish to socialise more often. The retired group was marginally more like to have fewer friends than those who were not retired (.098), but...
socialised more often than any other group and were more likely to be happy with the extent to which they socialised.

Figure 7.10 shows the different ways in which baby boomers socialised, with the data suggesting they had strong social relationships with family and tended to prefer informal get-togethers with friends rather than socialising through formally structured groups. Socialising, which occurred in formal groups, tended to be sport or hobby oriented (32.4 per cent), with church groups (13.6 per cent) and community-based groups such as environmental organisations, Rotary, and Friends of the Art Gallery (11.8 per cent), being less popular.

![Figure 7.10: Modes of Socialising – Baby Boomers 1946-1965](chart)

Note: Based on multiple response question. Per cent=per cent of cases
Source: NWAHS TFU Survey 2 (Postal/online), 2007

However, as Figure 7.11 shows, patterns of socialising in at-risk groups varied significantly from the mainstream. All at-risk groups except for the retired were more likely to say they didn’t socialise and less likely to socialise with a group of friends in an informal setting such as a barbeque. Singles (.000) and non-planners (.029) were also more likely to socialise with just one friend at a time (not shown in graph). There also appears to be a trend for at-risk groups to socialise in more structured settings, with a higher proportion of all at-risk groups,
except for non-planners, socialising through community and church groups. A much higher proportion of singles (7.6 per cent) did not socialise at all, compared to only 2.6 per cent of couples. Those in the depressed group were more likely to socialise through community based organisations (.001), while those in the low income group were more likely to socialise through church groups (.004). Similarly to singles, a significantly higher proportion (8.2 per cent) of those who were depressed did not socialise at all (.035). Given that nearly 60 per cent of those who were single were also on a low income, and 19.3 per cent were depressed, it is not surprising that modes of socialising of low income and depressed subgroups bear some similarity to that of the singles subgroup. The retired group differed little from the mainstream, although they were more likely to socialise through community groups than those who were not retired. These results suggest that those in at-risk groups may find it more difficult to gain entrance to informal friendship groups, which tend to be dominated by couples, and hence must look to more formal structures, such as church and community groups, to meet their needs, or alternatively, to socialise at an individual rather than a group level.

Figure 7.11: Modes of Socialising – At-risk and Mainstream Subgroups

* p<.05; ** p<.001; ^ p<.1
Note: Based on multiple response question. Per cent=per cent of cases
Source: NWAHS TFU Survey 2 (Postal/online), 2007
7.3.3 Perceived Constraints to Social Interaction

Figure 7.12 shows that the two most common constraints to socialising were ‘lack of time’ and ‘little opportunity to meet like-minded people’. Lack of time (45.8 per cent) was a major constraint for both at-risk and mainstream groups and followed a similar pattern to that observed in Chapter 6 for exercise and making positive changes to lifestyle. The percentage nominating ‘lack of opportunity’ (45.5 per cent) was similar for both types of groups suggesting that this constraint is not necessarily linked to conventional notions of social exclusion, or to reduced opportunities for social integration, but is more likely to have its source in the changes to traditional everyday institutions and social practices that are a n integral part of reflexive modernity (Giddens 1990). Although the percentage citing ‘health problems’ (8.9 per cent) as a constraint was comparatively small, it is, nevertheless, of concern, given that respondents are still in mid-life. Members of the 1956-65 cohort were more likely to cite ‘lack of money’ (.006) and ‘lack of time’ (.000), than those in the 1946-55 cohort, and females were more likely to cite ‘being widowed’ (.042) and a ‘lack of money’ (.043) than males.

Figure 7.12: Constraints to Socialising – Baby Boomers 1946-1965

<table>
<thead>
<tr>
<th>Constraint</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of time</td>
<td>45.8%</td>
</tr>
<tr>
<td>Difficult to meet people</td>
<td>45.5%</td>
</tr>
<tr>
<td>Lack of money</td>
<td>8.9%</td>
</tr>
<tr>
<td>Feel uncomfortable</td>
<td>7.5%</td>
</tr>
<tr>
<td>Health problems</td>
<td>6.2%</td>
</tr>
<tr>
<td>Being Single</td>
<td>5.1%</td>
</tr>
<tr>
<td>Being married</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

Note: Based on multiple response question. Per cent=per cent of cases
Source: NWAHS TFU Survey 2 (Postal/online), 2007
Figure 7.13 shows that most at-risk groups were more likely to nominate ‘being single’, ‘feeling uncomfortable in social situations’, and ‘lack of money’ as constraints while the retired, the depressed, and the low income groups were also more likely to cite ‘poor health’ as a constraint. The fact that singles nominated more constraints than couples is at odds with their more frequent socialising and larger number of close friends but is likely to be explained by the increased time they spend alone and their lack of access to the constant companionship available to couples and through families. Conversely, confident singles with good social networks might be at less risk of social isolation in later life than couples, particularly where a member of a couple has relied heavily on the presence of a partner at the expense of nurturing non-familial relationships.

**Figure 7.13: Constraints to Socialising – At-risk and Mainstream Subgroups**

![Constraints to Socialising – At-risk and Mainstream Subgroups](image)

*Note: Based on multiple response question. Per cent=per cent of cases
Source: NWAHS TFU Survey 2 (Postal/online), 2007*

### 7.3.4 Social Connectedness across the Cohort

One criticism of productive ageing, the paradigm conventionally embraced by government policy makers, is its failure to adequately acknowledge the contribution social connectedness makes to wellbeing and the importance of this facet of ageing for the maintenance of identity.
in later life (Estes et al. 2003b). Instead, it focuses on the individual and on their responsibility to adopt a lifestyle that will help them to age well and to continue to be productive citizens. Productivity, and activities that deliver some sort of economic or societal benefit, are privileged over more intrinsically meaningful activities and over relations with others. This comparative lack of emphasis on social wellbeing is also reflected in the smaller proportions of baby boomers who rated ‘good friends’ as important to wellbeing in later life, and who rated proximity to ‘friends’ less highly than proximity to ‘general services’, ‘family’, and ‘health services’ (Chapter 8). Despite this, social interaction and connectedness is clearly an issue for baby boomers and one that is not perhaps taken sufficiently seriously in government policy.

Around 45 per cent of baby boomers felt that ‘difficulties in meeting like-minded people’ constrained their social life, while 40.3 per cent expressed a desire to socialise more often. These findings suggest that there is a substantial proportion of baby boomers who feel their social needs are not adequately met. This is irrespective of group membership and hence cannot be attributed to the extent to which individuals are embedded in social structures that provide opportunities for social integration. Rather, it is clearly a more pervasive problem that affects both at-risk and mainstream groups equally. It is more probable that his dissatisfaction with social life is linked to the fragmentation and dissolution of everyday institutions, the rise of individualism, and increased individualisation. In modernity, and particularly in reflexive modernity, personal connections have become more psychologically based and less likely to be institutionally organised (Giddens 2002). The more self-referential nature of modern life means that friendship is more likely to take the form of what Giddens calls the ‘pure relationship’, one in which ‘external criteria have become dissolved: the relationship exists solely for whatever rewards that relationship as such can deliver’ (Giddens 1991:6). That is, it must in some way be personally enriching and forms one of the threads from which an individual weaves a tapestry of personal meaning and biography.

Friends are not acquaintances or colleagues, but someone with whom you resonate personally, and this stringent criterion makes them more difficult to find. In addition, globalisation, increased mobility and flexible work conditions all insist on the formation of friendships that
are referenced to the self rather than to institutions, and which are capable of being sustained in the event of external change. In the past, friendship was more institutionally-based and more linked to community structures, clubs and religious organisations. However, these have become less popular as individualism and diversity have increased. Equally, a variety of factors have made it difficult for these institutions to maintain public interest and engagement and to meet the needs of a more diverse community. The increased involvement of women in paid work has contributed to a weakening of community ties, and socialising that once would have occurred as part of some community endeavour has decreased (Putnam, 2000). The increase in divorce and serial monogamy fractures yet another traditional basis for friendship, and reduces access to one of the most socially accepted platforms from which to socialise. Hence, friendship and partnering practices have, to some extent, evolved beyond the capacity of traditional institutions to frame an appropriate ‘meeting place’ that resonates with the new dimensions of these relationships. The proliferation of online dating services (Valkenburg and Peter 2007), introduction agencies and singles clubs, the use of the Internet and personal advertisements, are as much a reflection of the difficulties people face in meeting like-minded friends and partners as they are an answer to the problem. Some indication of the need for friendships, which are more personal in nature, is evident from the much higher proportions of all groups that nominated ‘informal socialising with friends’ compared to those who nominated ‘clubs’, ‘associations’ or ‘religious organisations’.

It should also be noted that family remained a primary focus for socialising suggesting that, while marital ties may be weakened, blood ties still provide a strong degree of social stability. Although the issues related to social connectedness are relevant to both at-risk and mainstream groups, risk of poor social connectedness is still greater for at-risk groups. This is due to the greater cumulative disadvantage they are likely to have experienced over the life course. One consequence of such disadvantage is a reduction in social opportunities which will, in turn, affect the quality and extent of the social convoy they bring to later life, the resources they have to meet their social support needs, and, inevitably, their overall wellbeing (Armstrong Mair 2007). That this is a reality for at-risk groups within the baby boom cohort is evident from the fact that three of these groups were likely to have fewer friends than their mainstream counterparts, and all had less potential social support through close family ties.
7.4 Meaningful engagement

The enjoyment of education in later life is highly correlated with psychological health. Likewise, the capacity for playfulness and creativity in retirement and the ability to gain new friends is associated with wellbeing in old age (Vaillant 2003). The ability to be generative, to pass on knowledge and experience to the young, is also well recognised as a contributing factor to ageing well (Erikson et al. 1986). Ryff’s (2004) research on ‘eudaimonic’, or psychological wellbeing, also suggests that having a sense of personal growth and purpose in life may also make an important contribution to biological health as well as overall wellbeing. These characteristics do not automatically appear when an individual reaches retirement but, as with physical health, require nurturing and development throughout life. One danger in the emphasis on productive ageing is the possibility that it may marginalise engagement that is simply personally meaningful and hence, leave little space for the personal growth and development that may enrich old age. Meaningful engagement is difficult to assess, particularly using quantitative methods. This study therefore provides only a broad indication of the extent to which baby boomers experience this type of engagement through asking questions about meaning in life and personal interests and hobbies.

Although 88.2 per cent of baby boomers felt that ‘curiosity and passion for life’ were important for wellbeing in later life, only 74.4 per cent pursued some sort of hobby or interest, and only 62.5 per cent felt that there ‘would be something they would love doing in later life but didn’t have time to do at present’. The retired had the highest proportion engaging in a hobby or interest, showing the importance of free time for this type of engagement. However, it is also of interest to note that the majority (54.6 per cent) of those who had no hobbies or interests did not expect this to change in retirement. With the exception of non-planners, who had by far the lowest proportion with hobbies or interests, at-risk groups did not vary significantly from the mainstream. However, as Table 7.10 shows, most at-risk groups were significantly less likely to experience a sense of personal meaning or to ‘feel that there was something they really looked forward to doing in later but didn’t have time to do at present’; indeed, this was the case for around 50 per cent of low income earners. By contrast, this was
not the case for the depressed, a high proportion of whom had a ‘sense of meaning in life’, pursued interests and ‘looked forward to doing something in later life but didn’t have time to do at present’.

Table 7.10: Meaning in Life and Hobbies/Interests – At-risk and Mainstream Groups

<table>
<thead>
<tr>
<th></th>
<th>‘Meaning in Life’</th>
<th>‘Current hobbies/interests’</th>
<th>‘Something you will love doing in later life but don’t have time to do at present’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Couples</td>
<td>83.8*</td>
<td>74.5</td>
<td>65.4*</td>
</tr>
<tr>
<td>Singles</td>
<td>74.6</td>
<td>74.3</td>
<td>54.0</td>
</tr>
<tr>
<td>&gt;$40,000</td>
<td>84.0*</td>
<td>75.2</td>
<td>69.3**</td>
</tr>
<tr>
<td>&lt;$40,000</td>
<td>77.0</td>
<td>72.1</td>
<td>50.7</td>
</tr>
<tr>
<td>Planners</td>
<td>83.8*</td>
<td>78.2**</td>
<td>73.6**</td>
</tr>
<tr>
<td>Non-planners</td>
<td>75.6</td>
<td>62.5</td>
<td>56.9</td>
</tr>
<tr>
<td>Not Retired</td>
<td>80.9</td>
<td>72.7**</td>
<td>67.7**</td>
</tr>
<tr>
<td>Retired</td>
<td>84.2*</td>
<td>84.3</td>
<td>32.2</td>
</tr>
<tr>
<td>Not Depressed</td>
<td>82.0</td>
<td>74.2</td>
<td>63.1</td>
</tr>
<tr>
<td>Depressed</td>
<td>80.8</td>
<td>75.5</td>
<td>64.3</td>
</tr>
</tbody>
</table>

*=<.05; **=<.001

Source: NWAHS TFU Survey 2 (Postal/online), 2007

The relatively low proportion of baby boomers, particularly those in at-risk groups, who looked forward to later life as a time to pursue personal dreams that cannot be pursued at present raises a question about the extent to which Laslett’s (1989) notion of retirement as the ‘Crown of Life’, has taken hold. Most respondents who specified what it was that gave their life meaning identified family, particularly children and grandchildren. This suggests that, for many, meaning in life may primarily be sourced from their relations with others rather than from the pursuit of individual goals and activities that are related to personal growth. This may explain why those in at-risk groups, who appeared to experience lower levels of social integration, were also less likely to say that there was something in their life that gave it meaning. The fact that the depressed did not differ markedly from the mainstream in this respect, despite the fact that they generally appeared to experience lower levels of social integration, suggests they may be more likely to source meaning from personal projects and activities rather than through personal interaction.
7.5 Conclusion

This chapter has sought to show baby boomers’ capacity for active engagement in later life based on their current levels of engagement. This will, of course, be influenced by the extent to which they retain or improve their health. However, a key purpose of this chapter has been to identify groups who already have low levels of engagement or experience some level of social exclusion. Policy actions to assist these groups now, could well contribute to a more positive ageing process in the future. The results presented in this chapter show that active engagement varied considerably by subgroup. Although there were few differences for volunteering, it is clear that at-risk groups had fewer opportunities for engagement through paid work and were more likely to be in precarious employment categories. Male baby boomers have been particularly affected by the restructuring of the labour force, with those aged 45-54 having much lower participation rates than their predecessors the same age in 1981. The intention to work part-time in later life varied by a range of characteristics, however, lack of financial security is likely to be a key driver and, while low income earners were significantly less likely to plan to work part-time than high income earners, it is noteworthy that this was not the case for single low income earners, 10 per cent more of whom intended to work part-time than low income couples. This group is more likely to have a background of precarious employment and to have chronic health conditions. It will, therefore, be important to provide training opportunities to facilitate the ability to remain attached to, or to re-enter, the workforce, and to improve their health outcomes through self-management strategies and health promotion programmes. Difficulty in meeting like-minded people was a major constraint to social interaction for both mainstream and at-risk groups; however, at-risk groups had fewer opportunities for informal socialising, experienced more psychosocial and financial constraints to social participation and were less likely to have a sense of meaning and purpose in life. In addition, they generally had fewer social support resources for later life. These findings indicate that, for some subgroups, the ideal of active engagement in later life may be difficult to achieve. The next chapter considers the housing expectations of baby boomers and the degree to which public protection mechanisms in this domain are likely to be adequate.
Chapter 8: Housing

8.1 Introduction

Housing is central to wellbeing in later life and is a core component of both the self-protection and self-insurance portfolios. Housing which is a good ‘fit’ with both the psychosocial and physical needs of older individuals can contribute to independence, social integration, social participation and general health (Beer et al. 2009; Hugo et al. 2009; Morris 2010). This implies a need for a diverse range of housing options capable of meeting the varying needs of individuals with different life histories and in different stages of life. Chapter 4 noted that baby boomers will have a more diverse demographic profile and different needs to those of previous generations as they will have fewer children, are more likely to be divorced, to be living alone and to have families that are geographically dispersed. Hence, for this cohort, housing assumes a particular importance, as the right type of housing has the potential to fill some of the gaps arising from the individualisation processes associated with social change. For subgroups with low levels of social and community engagement (Chapter 7), the ability to access secure, well-located, socially-oriented housing, could make a significant contribution to health, wellbeing and quality of life. This chapter considers baby boomers’ current housing resources, discusses their expectations for housing in later life and assesses the influence of current policy settings on future housing security for different subgroups of baby boomers. Section two provides an overview of the national policy framework, while section three considers how the context for older people’s housing has changed over the last few decades. The fourth section examines housing security within the baby boom cohort and Section five considers their future expectations in relation to housing. Section six considers the impact of recent policy initiatives on baby boomer’s future housing security.

8.2 Housing – the Broad Policy Framework

Housing models for older people are diverse but can be categorised under three main types: conventional housing in the community; unassisted communities; and assisted communities
The extent to which government is involved in the provision of housing varies across these areas and ranges, from direct involvement through Commonwealth Rental Assistance (CRA) and public housing, to indirect involvement through legislation, regulation and/or funding of retirement villages, which are generally provided by the community and private sectors. In addition, other policy areas, such as urban planning and aged care services, frequently interact with housing policies relevant to older people making this an extremely complex area (Jones et al. 2010). Currently, there is no national strategic framework that specifically takes account of older people’s housing needs. Consequently, this discussion is framed by national housing policy, the past and current context in which older people rent, and the implications of current policy settings for older people, particularly for those who do not own their own homes.

Affordable housing has become a major issue in recent years. Research shows that ‘Between 1960 and 2006 real house prices increased at an average of 2.7 per annum, ahead of a 1.9 per cent per annum growth in per household real incomes’ (Yates et al. 2007:9). This rapid increase has raised the deposit required for a median priced dwelling to ‘... at least four times the income of those on average earnings’ making entry to the housing market more difficult (Yates 2007:1). At the same time, the cost of private rentals has also increased dramatically and the availability of affordable rentals has decreased significantly. This is particularly the case for renters in the three lowest income categories who, in the 2001-2006 census period, faced a shortage of 71,000 rental dwellings compared to a surplus of 4,000 in the preceding census period (Wulff et al. 2009:1). It is not surprising, therefore, to find that housing policy in Australia has recently been reframed to more adequately address these issues. Under the new Inter-governmental Agreement (IGA), the Commonwealth State Housing Agreement (CSHA) and the Supported Assistance Accommodation Programme (SAAP) have been replaced with the National Affordability Housing Agreement (NAHA) implemented in January, 2009. Unlike the preceding agreements, the NAHA is not time limited, and includes local government as well as national and state/territory (the States) governments. The NAHA

26 For example: Home and Community Care (HACC) programme, Community Age Care Package (CACP) and Extended Age Care in the Home package (EACH).
is the vehicle through which national housing funding is provided to the states and its key objective is to facilitate the development of affordable, safe and sustainable housing through collaboration between all levels of government (COAG Reform Council, 2010:9). In addition to the NAHA, the housing policy environment centres on the National Rental Affordability Scheme (NRAS), the Housing Affordability Fund (HAF) and housing initiatives within the National Building Economic Stimulus Plan (Tually et al. 2010:11). The NRAS is aimed at providing financial incentives to developers and other organisations with a view to delivering up to 50,000 affordable rental dwellings nationally between the years 2008 and 2012. Funding for housing through the Nation Building Plan will be delivered through the Social Housing Initiative (around $5.238 billion from early 2009 to the end of the 2011-12 financial year) and through the provision of $400 million for upgrades and repairs to existing social housing properties. The Social Housing Initiative has been cited as ‘...the most significant investment in new social housing in Australia’s history’ and is expected to deliver around 19,200 new social housing dwellings across Australia (Tually et al., 2010:24-25). The objectives of the NAHA are supported by National Partnership Agreements (NPAs) on Social Housing, Homelessness, and Indigenous Australians Living in Remote Areas. Through these agreements additional funds will be available to support particular areas of need and to ‘...facilitate and/ or reward states/territories that deliver on agreed nationally-significant reforms...’ (Tually et al. 2010:14).

8.3 Housing for Older People – Past Context

Affordable rental housing for older people was largely accumulated during periods when housing policy contained a specific focus on older people, first through the Aged Persons Homes Act of 1954 (APHA) and later through the 1969 States Grants (Dwellings for Pensioners) Act (Jones et al., 2007). The former provided matched capital grants of £1:£1 to non-profit non-government organisations to build homes for older people and, by 1978, had resulted in the provision of over 60,000 units of accommodation (Jones et al., 2007). However, over time, the accommodation provided under this program was increasingly built in aged care facilities rather than in the community, whilst the target group shifted from lower
income Australians to those who could afford to pay a fee on entry. Thus, ultimately, this stock of housing became integrated into the not-for-profit retirement village sector rather than constituting independent affordable units within the community. Although its original purpose was deflected, funding through this Act did stimulate community sector involvement in retirement villages through capital grants for Independent Living Units (ILUs), hostels and nursing homes (Jones et al. 2007; Jones et al. 2010). From the 1980s, capital funding in this area was largely withdrawn as the Government increasingly shifted its focus to residential aged care homes and the provision of community care through HACC (Jones et al. 2007). Since then, development of the retirement village sector has largely been undertaken by the community and private sectors, with little direct public sector funding or provision (Jones et al. 2010).

The 1969 States Grants (Dwellings for Pensioners) Act gave an additional boost to aged housing provided under the APHA. Originally it focused on the provision of public housing for single Age Pensioners but was subsequently broadened, through the Pensioner Rental Housing Programme (PRHP), to include other categories of pensioners (Jones et al. 2007). It was incorporated into the CSHA in 1978 and resulted in a substantial increase in the number of dwellings provided for lower income older people (Jones et al. 2007; Jones et al. 2010). However, in the early nineties there was a general policy shift away from the provision of public housing in favour of facilitating affordability through CRA and through the community and private housing sectors. Around the same time, the focus on older people’s housing virtually disappeared. The PRHP was discontinued and the target group for public housing shifted from those on low incomes to those with special needs (Jones et al. 2007; Morris 2010). Despite the recent overhaul of housing policy, this particular policy trend has not been reversed and the housing needs of older people continue to be addressed within a broad policy framework rather than through a coherent strategy on housing for older people.

8.4 Baby Boomers and Housing Security

Home ownership provides a solid foundation for retirement through its capacity to significantly reduce financial outlays, to provide security of tenure and to facilitate ageing in
place (Harmer 2009). Equally, suitable housing that meets the needs of older people is an essential factor in a positive ageing process and its facilitation not only benefits individuals but also has the capacity to reduce government expenditure in relation to health and aged care services. More than half of the total wealth of baby boomers is held in the home, hence, for many, it constitutes a significant retirement asset (Kelly and Harding 2004:103). In addition, the emergence of products such as reverse mortgages means that it is now possible to draw on housing capital without sacrificing housing security (Hugo 2007a).

8.4.1 Housing Tenure in the Baby Boomer Cohort

Section 8.2 showed that housing has become less affordable over recent decades. Equally, there is a trend for people to delay home ownership with this, in part, being connected to the deferral of other life cycle events associated with home ownership such as marriage and child bearing (Baxter and McDonald 2004). Reflecting this trend, levels of home ownership are decreasing (Steering Committee for the Review of Government Service Provision 2009) and in the future there are likely to be more people entering retirement with a mortgage debt or as renters (Hugo et al. 2009). This is demonstrated in Figure 8.1, which shows that between 1996 and 2006, there has been a distinct increase in the percentage of 40-64-year-olds who are owner/purchasers and private renters, and a decrease in the percentage of outright owners. This is particularly the case for baby boomers, who were aged 40-60 years when the 2006 data was collected.

Figure 8.1: Trends in Midlife Housing Tenure, Australia, 1995-96 and 2005-06

NOTE: This figure is included on page 227 of the print copy of the thesis held in the University of Adelaide Library.

Source: Flood and Baker 2010, Adapted from Table 11, p. 54.
This shift in housing tenure is also demonstrated in Table 8.1, which shows that baby boomers aged 45-54 in 2006 were less likely to be owner/purchasers or in public housing than their predecessors the same age in 1981, and more likely to be in private rentals. This has implications for health and wellbeing in later life as wellbeing in older people has been shown to vary according to tenure with marked differences evident for public rental, private rental and ownership (Hugo et al. 2009; Morris 2010; Harmer 2009).

**Table 8.1: Housing Tenure – 45-54 Year-Olds in 1981 and 2006**

<table>
<thead>
<tr>
<th></th>
<th>1981 - Aged 45-54</th>
<th>2006 - Aged 45-54</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male %</td>
<td>Female %</td>
</tr>
<tr>
<td>Owner/purchaser</td>
<td>84.1</td>
<td>84.0</td>
</tr>
<tr>
<td>Private Rental</td>
<td>10.5</td>
<td>9.6</td>
</tr>
<tr>
<td>Public Rental</td>
<td>5.4</td>
<td>6.4</td>
</tr>
<tr>
<td>Total</td>
<td>661 400</td>
<td>657 600</td>
</tr>
</tbody>
</table>

Source: ABS, 1981b; 2006b

Figure 8.2 shows that levels of home ownership were somewhat higher for baby boomers in the NWAHS than for the selected subgroup of baby boomers shown in Table 8.1, with this probably reflecting the additional inclusion of older baby boomers. A round 42 per cent of baby boomers owned their house outright, about 45 per cent were still paying off a mortgage and around 11 per cent were renting. The majority of respondents lived in a separate house (91.5 per cent) with only 7.8 per cent occupying a semi detached dwelling or flat/unit.

**Figure 8.2: Housing Tenure – Baby Boomers 1946-1965**

![Housing Tenure Chart](chart.png)

*p<0.05; **p<0.001  
Source: NWAHS TFU Survey 2, (CATI), 2007
Although members of the 1946-55 cohort were significantly more likely to own their home outright, at the time of the survey, 31.2 per cent were still paying off a mortgage. The 1956-65 cohort was even more likely to be in this position. Gender made no difference to any type of housing tenure and rental tenure did not differ markedly by cohort. However, as Figure 8.3 shows, key differences begin to emerge when housing tenure is disaggregated by the different subgroups, with all at-risk groups more likely to be renting. Singles were clearly the most marginalised when it came to housing with 34.1 per cent still renting. At first glance the low income group appears to be doing almost as well as those on higher incomes, with just over 40 per cent of each of these groups owning their own home outright. However, the remainder of the high income group were more likely to be paying off a mortgage and only 5.8 per cent were renting compared with 24.8 per cent of the low income group. A high proportion of the retired owned their home outright, with this being at least a partial explanation as to why this group has been able to leave the workforce. However, it is important to note that even in this subgroup, which is particularly advantaged in terms of housing tenure, there continues to be significant disadvantage for singles. Indeed, single retirees were significantly more likely to be renting and less likely to have outright ownership (.000), with 31.9 per cent of single retirees renting compared to only 5.1 per cent of couples.

Figure 8.3: Housing Tenure for At-risk and Mainstream Subgroups

*\(p<0.05\); **\(p<0.001\)

Source: NWAHS TFU Survey 2 (CATI), 2007
The ageing of the population is expected to result in a sustained increase in the number of people aged 65 and over living in lower-income rental households, with projections from the Australian Housing and Urban Research Institute (AHURI) suggesting an increase of ‘... 115 per cent from 195,000 in 2001 to 419,000 in 2026’ (Jones et al. 2007:viii). A significant proportion of these will be sole person households and two-thirds of these households will be women (Jones et al. 2007). Much of this increase will come from members of the baby boomer cohort who will be aged between 61 and 80 in 2026.

8.4.2 The Effectiveness of Public Protection Mechanisms

Currently, the primary form of government housing support for older renters in conventional housing is through CRA and public housing. However, these forms of public support are both under strain and the future outlook for low income older renters is bleak. Although CRA was introduced to compensate for the reduction in public housing it has not kept pace with the cost of private rental accommodation which, in most capital cities, is unlikely to be available for under $400-500 per fortnight (pf) (Kelly 2009b; Wulff et al. 2009). This has a significant impact on non-home owner Age Pensioners, who are more likely to be at the low end of the income scale and to have fewer assets than home owners, thus requiring them to allocate a larger proportion of their income to rent payments (Kelly 2009b). Demand for public housing by older households is projected to increase by 75 per cent between 2001 and 2016, but in the 85+ group is expected to increase by 118 per cent. By contrast, the supply of public housing is only expected to increase by 24 per cent in the same period (McNelis and Neske 2009). Unless this situation is reversed, non-home owner baby boomers will continue to rely on private sector rentals as they age, with consequent effects on both financial status and general wellbeing.

Figure 8.4 illustrates the increase in rents over the last three decades by comparing the rental costs paid by baby boomers aged 45-54 in 2006 with those paid by 45-54 year-olds in 1981 (rents have been equivalised). In 1981 the majority of renters (59.8 per cent) were paying $99 per week or less, and only 8.4 per cent were paying $180 per week or more. By contrast, the majority of 45-54 year-old baby boomers in 2006 (57.1 per cent) were paying $180 per week or more and only 15.9 per cent were paying $99 per week or less. The much greater
proportion of baby boomers in the higher rental brackets partly reflects a decrease in the availability of affordable rentals (Wulff et al. 2009), but also the decreased level of home ownership and the smaller proportion in public rentals. Although individual incomes have also risen considerably (Figure 8.5), there is still a substantial proportion on relatively low incomes of between $250-$599 per week, while the percentage of males on an income of around $249 per week is virtually the same as it was in 1981. In addition, renters in this age group are more likely to be on low incomes.

Figure 8.4: Weekly Rental Costs of 45-54 Year-olds in 1981 and 2006

![Rental Costs Graph](image)

Note: Includes public and private rentals. Rents have been equivalised using CPI converter. Source: ABS, 1981b, 2006b (Based on author's calculations - Appendix 5.1)

The last major adjustments to CRA were in 2000 and the rate of CRA has not kept pace with changes in the rental market. Indeed, if CRA had been indexed by changes in the actual rents paid rather than by CPI it would be around $10pw higher than the current rate (Harmer, 2009). Currently, a single Age Pensioner receiving the maximum Pension, Pension Supplement and CRA, and having no private means, would be on an income of $814.50 per fortnight (pf). If they paid a private rent of $252.00 pf (the point at which they receive full
CRA) this would represent 30.9 per cent of their fortnightly income meaning that these pensioners would still be considered as experiencing housing stress. Single Age Pensioners paying rent of $400.00 pf, a more realistic estimate, given the cost of current capital city rents and the dearth of available affordable rentals, would be paying 49.1 per cent of their fortnightly income in rent, well above the amount defined as constituting housing stress.

Figure 8.5: Individual Income – 45-54 Year-olds in 1981 and 2006

The Pension Review noted that CRA and social housing have complementary roles to play in addressing the financial security of pensioners, and implied that reforms to CRA, together with the Government’s Affordable Housing Strategy and Social Housing Initiative should substantially ameliorate housing stress for pensioners (Harmer 2009). However, since the Pension Review, CRA has only been increased by about $6.00 pf. This falls far short of what is needed and means that major reform is still required. Although the injection of funds into affordable housing will make a difference, the Social Housing Initiative does not specifically

27 Housing stress is defined as ‘income in the lowest two quintiles of the income distribution and spending more than 25 per cent of income on housing’ (Jones et al. 2007).
target older people and will not be sufficient to meet the projected future need of the older population. In addition, while rents for ‘affordable’ dwellings built under the NRAS will be set at 20 per cent below market rates, this will still be too expensive for older people reliant solely on income support (Morris 2010). This suggests that current public protection mechanisms in relation to housing will not be able to effectively meet the needs of low income baby boomers as they age.

8.5 Future Expectations and Preferences for Housing

8.5.1 Intentions to Move or Renovate

Although the media portrays a scenario in which high proportions of baby boomers will undertake a ‘sea or tree change’ on retirement (Ragusa 2007) there is little Australian research on retirement related movement intentions to either support or challenge this position. Of two studies in this area, one concluded that few baby boomers intended to move (Hamilton and Hamilton 2006), while a second study (ASRAM) found that around a third of baby boomers expected to move, and that this would result in a ‘... substantial “Baby Boomer retirement-driven housing boom” which can be expected to gather momentum as the larger “lagging edge” Baby Boom cohorts replace their smaller predecessors’ (Jackson and Walter 2007b:4). However, neither of these studies looked specifically at where baby boomers were intending to move. In the current study, around 35 per cent of respondents intended to move/had moved on retirement, and around 32 per cent intended to renovate/had renovated their existing house. The former is consistent with ASRAM findings while the latter indicates that the projected housing boom is likely to owe as much to renovations as to moving.

Figure 8.6 shows that intentions varied by whether individuals were already retired (mean age=54); were planning for retirement (mean age=48); or were not thinking about/not planning for retirement (mean age=46). In the non-planning group the percentage who intended to move or renovate was virtually identical. By contrast, a higher percentage of planners intended to move than to renovate while the reverse was true for the retired. The
intention to move or renovate was not influenced by either gender or cohort in any of the three retirement subgroups. However, it is not able that in the retirement subgroup, in which the average age was 6-8 years higher than the other two groups, the percentage that had moved, or intended to move, was substantially lower suggesting that age may be a factor in deciding whether to move or to renovate.

**Figure 8.6: Intentions to Move or Renovate in Later Life by Retirement and/or Planning Status**

These subgroups differed significantly in relation to income and housing tenure with planners being more likely to be on an income of $60,000 or more than either the retired or non-planning groups and the least likely to be in rental accommodation. The higher overall wealth of planners may be one reason why more of this group plan to move rather than to renovate. Equally, the even higher percentage of non-planners who intend to move is likely to reflect the high percentage of this group in rental accommodation (21 per cent) with the insecurity associated with rental tenure contributing to the likelihood of moving. These explanations are consistent with results from the ASRAM study that found that those most likely to move in retirement were younger, in rental or other accommodation, and in either the highest or lowest income brackets (Jackson and Walter 2007b).

Source: NWAHS TFU Survey 2 (CATI), 2007
Detailed data on where respondents intended to relocate was not collected; however, general data on respondents’ preferred locations is described in Table 8.2. The beach is clearly a lifestyle choice and is the most popular location; however, most respondents did not specify whether they preferred a regional or metropolitan beach. The country was also very popular at 19.4 per cent. The inner city was most popular with the planning group, while the primary destination for those who were retired was to another metropolitan area. This was also the second most common choice for non-planners and suggests that ‘sea and tree changes’ are more likely to occur for the affluent.

Table 8.2: Preferred Locations for Retirement – Planners and Non-planners

<table>
<thead>
<tr>
<th>Type of Location Preferred</th>
<th>Planners</th>
<th>Non-planners</th>
<th>Retired</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beach - metro</td>
<td>3.5</td>
<td>4.1</td>
<td>7.1</td>
<td>4.3</td>
</tr>
<tr>
<td>Beach - country</td>
<td>8.8</td>
<td>4.1</td>
<td>0.0</td>
<td>5.5</td>
</tr>
<tr>
<td>Beach - either</td>
<td>15.9</td>
<td>18.4</td>
<td>4.8</td>
<td>15.0</td>
</tr>
<tr>
<td>Total ‘Sea Change’</td>
<td>28.3</td>
<td>26.5</td>
<td>11.9</td>
<td>24.9</td>
</tr>
<tr>
<td>Inner city/Closer to city</td>
<td>16.8</td>
<td>9.2</td>
<td>2.4</td>
<td>11.5</td>
</tr>
<tr>
<td>Other metro</td>
<td>7.1</td>
<td>23.5</td>
<td>42.9</td>
<td>19.4</td>
</tr>
<tr>
<td>Hills</td>
<td>0.9</td>
<td>2.0</td>
<td>0.0</td>
<td>1.2</td>
</tr>
<tr>
<td>Country</td>
<td>23.9</td>
<td>14.3</td>
<td>11.9</td>
<td>18.2</td>
</tr>
<tr>
<td>Total ‘Tree Change’</td>
<td>24.8</td>
<td>16.3</td>
<td>11.9</td>
<td>19.4</td>
</tr>
<tr>
<td>Interstate</td>
<td>9.7</td>
<td>10.2</td>
<td>4.8</td>
<td>9.1</td>
</tr>
<tr>
<td>Travelling</td>
<td>4.4</td>
<td>0.0</td>
<td>2.4</td>
<td>2.4</td>
</tr>
<tr>
<td>Village</td>
<td>2.7</td>
<td>3.1</td>
<td>0.0</td>
<td>2.4</td>
</tr>
<tr>
<td>Downsize</td>
<td>6.2</td>
<td>11.2</td>
<td>11.9</td>
<td>9.1</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>98</td>
<td>42</td>
<td>253</td>
</tr>
</tbody>
</table>

Source: NWAHS TFU Survey 2 (CATI), 2007

8.5.2 Factors Important to Housing Location

A variety of factors influenced respondents’ current choice of neighbourhood, but the most commonly cited included: ‘liked the area’ (28.9 per cent); ‘affordable’ (23.9 per cent); ‘close to family’ (17.7 per cent); and ‘close to work’ (15.4 per cent). ‘Closeness to friends’, or to ‘services and shops’, were very low priorities in current living environment. However, Figure 8.7 shows that the majority of baby boomers considered the proximity of

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28 Although this would seem to be contradicted by the fairly high proportion of non-planners who specified a beach location this is likely to be explained by the fact that around 27% of this group are on an income of $60-$100,000.
‘health and general services’, ‘family’, ‘friends’, and ‘leisure facilities’ to be important components of their living environment in later life. Health and general services were accorded the greatest importance with 93.9 per cent considering ‘health services’, and 92.4 per cent considering ‘general services’, to be ‘moderately to extremely important’. This is in line with recent research, which noted that location and accessibility were central considerations for older South Australians (Beer et al. 2009). ‘Health and general services’ were followed by ‘family’ (83.5 per cent), ‘friends’ (81.1 per cent) and ‘access to leisure facilities’ (80.7 per cent). Although all at-risk groups ranked these components in the same order, there were differences between some at-risk and mainstream groups in the proportion that attributed importance to any one of the five components. There was a consistent trend for higher proportions of at-risk groups to attribute less importance to the proximity of ‘friends’ than their mainstream counterparts, with low income (.003) and retired groups (.013) being significantly less likely to do so. Ratings for proximity to ‘family’ were similar across all groups although non-planners were less likely than planners to see this as important (.022). Compared to their mainstream counterparts, the depressed and low income groups were both more likely to rate proximity to ‘general services’ as ‘very to extremely important’ and the depressed were also marginally more likely to rate proximity to ‘health services’ in this way (.066).

Figure 8.7: Factors Important to Living Environment in Later Life
– Baby Boomers 1946-1965

Source: NWAHS TFU Survey 2 (CATI), 2007
As shown in Figure 8.8, the most striking differences occurred between the retired and the not retired. Consistently higher proportions of the retired had placed little or no importance on the extent, quality and proximity of all five components when they considered the environment they would like to live in during retirement, with this being significant for every component except family. By contrast, those who hadn’t retired were significantly more likely to consider proximity to ‘leisure facilities’, ‘health services’ and ‘general services’ as being ‘very to extremely important’. The views of the retired may be a result of post facto rationalisation, or, alternatively, it may mean that ageing in place was more important than proximity to any of these components or that some respondents felt that moving was not an option. Further research is necessary to clarify why these differences exist.

![Figure 8.8: Factors Important to Living Environment in Later Life - the Retired and Not-retired](image)

*Source: NWAHS TFU Survey 2 (Postal/online), 2007*

### 8.5.3 Housing Preferences

There is a consensus that baby boomers will have different and higher expectations of the type of housing they inhabit in later life and that they will enter retirement with a different mix of personal and financial resources (Faulkner et al. 2006). Kendig and Bridge (2007) have asserted that baby boomers will be in a better position to make housing choices than previous
generations; however, this is largely based on the comparatively greater wealth of this cohort and, as wealth distribution in the cohort is highly skewed, this assertion will only be true for certain groups within the cohort.

Preferences for accommodation in later life were assessed by asking respondents the questions set out in Table 8.3. Although the first question identifies the most preferred option, the second question provides insight into the attitudes held towards other options, which may have greater relevance for baby boomers as they reach the older age groups. Circumstances and resources can change over time as an individual ages, for instance the support provided by a partner, friends and family may diminish due to death or relocation. Social networks may dwindle and independence may become compromised. When this occurs, living in one’s own home may cease to be attractive, or become less viable, with most people who relocate to purpose-built aged housing not doing this until their mid to late 70s (Beer et al. 2009). Hence, it is important to also assess the attitudes held towards those options that might provide a range of supports in the face of diminishing resources.

**Table 8.3: Survey Questions about Housing Preference in Later Life**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Which of the following living arrangements would you most prefer as you grow older? (Single response)</td>
</tr>
<tr>
<td></td>
<td>a. Living in own home by yourself or with your partner</td>
</tr>
<tr>
<td></td>
<td>b. Living in resort style retirement accommodation</td>
</tr>
<tr>
<td></td>
<td>c. Living in traditional retirement village which caters for ageing in place</td>
</tr>
<tr>
<td></td>
<td>d. Living in independent accommodation on shared land that you and your friends have bought and developed to create your own unique retirement community (hitherto referred to as cohousing)</td>
</tr>
<tr>
<td></td>
<td>e. Living with children in their house</td>
</tr>
<tr>
<td></td>
<td>f. Living in granny flat on children’s property</td>
</tr>
<tr>
<td></td>
<td>g. Other</td>
</tr>
<tr>
<td>2.</td>
<td>How much does each of the options below appeal to you? (5 point scale for each option)</td>
</tr>
<tr>
<td></td>
<td>a. Living in your own home by yourself or with partner (can be rented or owned)</td>
</tr>
<tr>
<td></td>
<td>b. Living in independent accommodation in a ‘lifestyle/resort’ retirement community that offers a variety of health and leisure facilities, services and activities</td>
</tr>
<tr>
<td></td>
<td>c. Living in independent accommodation in a traditional retirement village which has minimal facilities but provides access to low and high care nursing accommodation if required</td>
</tr>
<tr>
<td></td>
<td>d. Living in independent accommodation on shared land that you and your friends have bought and developed to create your own unique retirement community (hitherto referred to as cohousing)</td>
</tr>
<tr>
<td></td>
<td>e. Living in granny flat on child[ren]’s property</td>
</tr>
<tr>
<td></td>
<td>f. Living with your child[ren]</td>
</tr>
</tbody>
</table>

Source: NWAHS TFU Survey 2 (Postal/online), 2007
Confirming what is already well-known in the literature (Faulkner et al. 2006; Hugo et al. 2009), respondents overwhelmingly preferred to remain in their own home (82.2 per cent). Over half of the remaining 17.8 per cent preferred a resort style retirement community (12.2 per cent) and, with the exception of the ‘living with children’ option, which no-one chose, the remainder were evenly distributed between the other options. Baby boomers’ marked absence of interest in living with children has been noted in previous research and suggests that independence is highly valued (Judd et al. 2010); however, this may change as baby boomers age, as the chances of living with children increases significantly with age and dependency (de Vaus 2004:69). There were no significant differences between at-risk and mainstream groups in relation to preferred accommodation; however, renters were significantly more likely to express a preference for the granny flat option than were those in other tenure types.

When respondents were asked to rate the appeal of various options on a 5 point scale, the proportion for whom ‘Living in own home’ appealed ‘quite a bit’ or ‘extremely’, was similar to the proportion who preferred to remain in their own home. However, as shown in Figure 8.9, a considerable proportion of respondents also rated various forms of congregate housing in this way. Resort style retirement complexes were the next most popular (34.1 per cent) followed by cohousing (17.8 per cent) and the traditional retirement village (14.2 per cent).

**Figure 8.9: Accommodation Options which Appealed ‘Quite a Bit’ or ‘Extremely’ – Baby Boomers 1946-1965**

Source: NWAHS TFU Survey 2 (Postal/online), 2007
In contrast to the question about the most preferred accommodation option, Figure 8.10 shows that responses to the appeal of various options differed between at-risk and mainstream groups. Although the majority of baby boomers wished to remain in their own home, low income, singles and non-planning subgroups were significantly less likely to be attracted to this option and, compared to their counterparts, higher proportions of these groups were attracted to ‘independent living in a traditional retirement village’ or a ‘granny flat on child[ren]’s property’.

Logistic regression analyses (Appendix 5.2) showed that the ‘Living in own home’ option was negatively associated with rental tenure and with being divorced, separated or never married. Interest in resort style complexes was positively associated with outright home ownership and being female. Interest in traditional retirement villages was positively associated with being female and childless. Those who were divorced or separated were also more likely to be attracted to this option (OR:1.63) although this only approached significance (.076). This suggests that those with few financial resources and less social support are more likely to be attracted to the traditional retirement village option, possibly because it is perceived as...
offering a greater degree of both social and instrumental support, particularly if later life results in dependence. Equally, it is probably perceived as being more affordable than the resort style retirement complex, which was more attractive to those with greater financial resources (outright home ownership). Although the attraction to cohousing was not differentiated by at-risk or mainstream groups, logistic regression analyses (Appendix 5.2) showed that interest in this option was positively associated with being female, being a member of the 1956-65 cohort, having a tertiary education and being on an income of either $20,001-$40,000 or $60,001-$100,000. Two dominant motives for choosing cohousing have been identified as ‘… remaining active and positively preventing loneliness through social contact, togetherness and solidarity’ (Baars and Thomése 1994:352). Overall, women were more attracted to congregate living than men; however, this was particularly likely to be the case for single women. Given that women have longer life expectancies, and those without children have fewer sources of support, it is especially important to ensure that this group has access to appropriate congregate housing that will meet their needs for social and instrumental support.

Very few respondents were attracted to living with their children; however, the granny flat option was more popular. There was a clear socio-economic divide for this option, suggesting that its greater attraction for at-risk groups is influenced by a lack of financial resources rather than a desire to live in close proximity to children. This is consistent with previous research that shows low income to be associated with a greater likelihood of living in a multi-family household (de Vaus 2004). Children of non-planners should be prepared, as members of this group were significantly more likely to favour this option.

8.5.4 Perceived Constraints to Achieving Housing Preferences

The majority of baby boomers were fairly optimistic they could achieve their preferred accommodation, with 79.4 per cent answering that they were ‘quite a bit’ or ‘extremely confident’ they could do so. However, as Table 8.4 shows, confidence was much higher in mainstream groups with all at-risk groups except the retired being significantly less confident.
Table 8.4: Proportion of Respondents who were ‘Quite a Bit’ or ‘Extremely Confident’ of their Ability to Achieve their Housing Preference – Baby Boomers 1946-1965

<table>
<thead>
<tr>
<th>Mainstream Groups</th>
<th>Confident No</th>
<th>Confident Yes</th>
<th>n</th>
<th>At-risk Groups</th>
<th>Confident No</th>
<th>Confident Yes</th>
<th>n</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Couples</td>
<td>18.7</td>
<td>81.3</td>
<td>575</td>
<td>Singles</td>
<td>34.9</td>
<td>65.1</td>
<td>209</td>
<td>.000</td>
</tr>
<tr>
<td>No Depression</td>
<td>21.2</td>
<td>78.8</td>
<td>674</td>
<td>Depression</td>
<td>31.4</td>
<td>68.6</td>
<td>91</td>
<td>.029</td>
</tr>
<tr>
<td>&gt;$40,000</td>
<td>18.5</td>
<td>81.5</td>
<td>494</td>
<td>&lt;$40,000</td>
<td>31.2</td>
<td>68.8</td>
<td>234</td>
<td>.000</td>
</tr>
<tr>
<td>Planning</td>
<td>18.9</td>
<td>81.1</td>
<td>431</td>
<td>Not planning</td>
<td>34.9</td>
<td>65.1</td>
<td>239</td>
<td>.000</td>
</tr>
<tr>
<td>Not Retired</td>
<td>24.6</td>
<td>75.4</td>
<td>670</td>
<td>Retired</td>
<td>14.2</td>
<td>85.8</td>
<td>115</td>
<td>.014</td>
</tr>
</tbody>
</table>

Source: NWAHS TFU Survey 2 (Postal/online), 2007

In addition, as Figure 8.11 shows, confidence varied significantly according to the type of housing desired. The most confident were those who wished to remain in their own home and the least confident were those who preferred some type of retirement community. Indeed, although the small cell counts preclude the drawing of statistically valid conclusions it is noteworthy that only 1 out of 12 of those who preferred a traditional retirement village, and 1 out of 12 who preferred cohousing, felt confident of achieving their goal.

![Figure 8.11: Confidence in Achieving Preferred Housing Option – Baby Boomers 1946-65](image)

Note: ‘other’=not at all, a little bit, neutral; ‘confident’=quite a bit or extremely
Source: NWAHS TFU Survey 2 (Postal/online), 2007
The most frequently cited barriers were insufficient money (53.7 per cent) and lack of suitable accommodation (13.7 per cent). As Table 8.5 shows, lack of suitable accommodation was considered a major barrier for those whose preferred option was a resort style complex or traditional retirement village. It is interesting that a high proportion of those nominating a resort style complex considered this to be a constraint and suggests that the private sector has not yet developed the type of accommodation that appeals to baby boomers, or has not marketed developments effectively. Constraints listed under ‘other’ were primarily associated with the preferred option of ‘living in own home’ and generally reflected concerns that ill health or death of a partner might constrain this option.

Table 8.5: Relationship between Perceived Barriers and Preferred Housing Options – Baby Boomers 1946-1965

<table>
<thead>
<tr>
<th>Perceived Barriers</th>
<th>Own Home n=522</th>
<th>Resort n=94</th>
<th>Traditional n=12</th>
<th>Cohousing n=12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of money</td>
<td>52.9</td>
<td>57.6</td>
<td>72.0</td>
<td>66.3</td>
</tr>
<tr>
<td>Lack of suitable accommodation</td>
<td>4.6**</td>
<td>60.8**</td>
<td>54.4**</td>
<td>16.1</td>
</tr>
<tr>
<td>Other</td>
<td>38.0**</td>
<td>5.7</td>
<td>12.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

**p<0.001
Source: NWAHS TFU Survey 2 (Postal/online), 2007

Figure 8.12 shows that nearly all at-risk groups were significantly more likely to find lack of money a constraint to achieving their preferred accommodation, conversely, the retired were the most likely to consider lack of suitable accommodation a constraint – at 20.2 per cent compared to 12.8 per cent of those who were not retired. Generally, higher proportions of the mainstream groups considered lack of suitable accommodation to be a constraint than did the at-risk groups, although only couples were significantly more likely to do so (.027).
8.6 The Impact of Recent Policy Initiatives

8.6.1 Positive Outcomes

Recent funding initiatives will make a positive impact on housing outcomes across the board and in the short term will assist in alleviating the general shortage of affordable dwellings identified in Section 8.2. This, in turn, will filter through to some older people in the rental market. For instance, the NPA on Homelessness is likely to result in a variety of initiatives that will benefit older homeless people who also require integrated support services (Jones et al. 2010). Similarly, the Social Housing Initiative includes around 4,300 dwellings that are either targeted specifically at older people or are identified as being suitable for older people (Jones et al. 2010). In addition, a number of the criteria contained in the NRAS Regulations are beneficial for older people, such as the need for developments to be well located with respect to services and to contain a social mix (Commonwealth of Australia 2009a). Priority is also given to NRAS projects that target special needs groups. This is inclusive of older people, and aged care service providers are encouraged to apply (Jones, et al. 2010). The NPA
on Social Housing, the regulations governing the NRAS, and the Social Housing Initiative all emphasise the importance of housing developments that use universal design principles and that are environmentally sustainable and energy efficient (Commonwealth of Australia, 2009a:17; Council of Australian Governments 2009b). Both of these criteria are extremely important for older people, the first because it facilitates ageing in place and the second because it reduces costs associated with housing.

8.6.2 Policy Gaps

In general, national housing policy fails to reflect an awareness of the significant impact that population ageing will have on future housing requirements or of the complexity of the issues associated with housing older people. The shift from public housing to CRA is particularly detrimental to older people on low incomes and creates both affordability and suitability issues. Private rentals do not provide security of tenure, are not generally designed for older people, cannot be readily modified to suit the tenant’s needs and contribute to costly outlays for those who are forced to move when their tenancy expires (Morris 2009). Forced moves preclude the ability to age in place and may disrupt social connections and age related services thus increasing the risk of poor health and wellbeing outcomes. Private renters have very few options with regard to finding suitable accommodation and those on low incomes with few choices are likely to perceive a move into residential care as an attractive option (Beer et al. 2009).

Equally, there is no clear policy framework to address the range of issues that beset the provision of purpose built aged housing. This sector is expected to see significant growth over the next few decades and is clearly seen as a desirable option by certain groups of baby boomers (Faulkner et al. 2006; Hugo 2007a). Purpose-built aged housing can achieve a range of objectives important to people as they grow older such as increased social interaction and support, security, low maintenance, assistance with meals and easier access to a range of services (Beer et al. 2009) (Gardner et al. 2005). Evidence suggests that the services and facilities associated with this type of housing are highly valued, particularly by those on lower incomes who are more likely to ‘... wait for services to be provided by the government rather than to organise and pay for them themselves’ (Beer et al. 2009:22). However, recent research
suggests that the models of congregate living available in Australia have not kept pace with changing expectations and aspirations for this type of housing (Beer et al., 2009). For instance, consumers exhibit a preference for congregate housing constituted by small groups of up to 20 houses integrated in the community whereas retirement villages are often much larger than this and more segregated from mainstream housing (Beer et al. 2009). Research also suggests that baby boomers have high expectations of purpose-built housing and desire space, a spare bedroom and privacy; qualities that are unlikely to be met by traditional ILUs. Baby boomers also place considerable importance on community and those who consider moving are keen to relocate to ‘... places where they believed there was an active and supportive community’ (Beer et al. 2009:18). Access to housing in a supportive community will be particularly important for singles and those on low incomes or with few assets; however, their ability to gain entry to such settings is constrained as the financial structures associated with purpose-built aged housing often involve high entry costs and a potential loss of capital (Beer et al. 2009).

Despite the fact that some not-for-profit retirement villages contain a mix of tenures targeted at low income low asset older people the supply of ILUs is limited (Jones et al. 2007; Older Persons Affordable Housing Alliance 2009). In addition, the decreased policy focus on housing for older people means that there has been no systematic funding to upgrade, reconfigure or replace these units (Older Persons Affordable Housing Alliance 2009). As a result, many organisations are opting out of this sector and much of the stock is outdated and below community standards (Older Persons Affordable Housing Alliance 2009). Although some private sector developers, such as Village Life, have tried to meet this gap in the market through the development of assisted living villages, the experiences of tenants and owners alike have raised some key issues around their suitability, choice, affordability and management (Faulkner et al. 2006; Jones et al. 2007). Some low income tenants have been left in the invidious position of having no alternative but to remain in these villages, even if dissatisfied, because they cannot save enough money to leave (Jones et al. 2007). One effect of such problems has been an increased tendency of the private sector to shift their focus to older people on moderate incomes (Jones et al. 2007). The policy gap in relation to...
congregate housing is highlighted by the fact that few of the NWAHS participants interested in congregate living were confident that they would be able to do so.

The view of the market sector as a significant source of supply for affordable housing is now well established in Australian housing policy and is evident through the decreased emphasis on social housing, and the use of CRA to supplement the cost of private rentals (Jones et al., 2007:125). Although private sector involvement has the capacity to attract investment and increase innovation, past developments in this area have generally taken a patchwork approach, resulting in a range of disparate projects rather than a clear and informed strategy (Jones et al., 2007). In addition, the provision of effective and suitable purpose-built aged housing requires a knowledge of age-related needs and preferences, which is not always held by the private sector. This points to a need for greater public sector involvement, particularly in terms of the monitoring and regulation of private sector rental retirement villages, to ensure the quality and appropriateness of the housing provided (Jones et al., 2007:120). One way of managing this issue is to foster partnerships between the not-for-profit, government and private sectors as this brings the expertise of all three areas together. Although this is clearly a priority of the NIAS, which has encouraged cross-sectoral partnerships through the provision of Partnership Facilitators in its Establishment Phase (Australian Government, 2008), views expressed by the community sector (Appendix 5.3) indicate that more still needs to be done (Older Persons Affordable Housing Alliance 2009).

8.7 Conclusion

This chapter has shown that the majority of baby boomers either own or are purchasing their home and look forward to an age-in-place. However, a substantial proportion of at-risk groups will transition into later life as renters and for those in this situation the effectiveness of public protection mechanisms for housing is in doubt. This is due to a policy shift away from the public provision of housing in favour of CRA and the provision of affordable housing through cross-sectoral partnerships. Although CRA provides some relief to low income groups it has failed to keep pace with increases in the private rental market, leaving a substantial proportion of low income renters in housing stress. This is particularly so for older
single renters solely reliant on the Age Pension, with housing costs exceeding 50 per cent of income in about 53 per cent of cases and exceeding 30 per cent of income in about 80 per cent of cases (Morris, 2010). In the absence of significant government intervention this situation is unlikely to improve for baby boomers. Single baby boomers will be disproportionately affected, with around 35 per cent currently renting. Although the NPHA seeks to adopt a more coordinated approach to housing policy it does not recognise older people as a specific housing policy group. This is at odds with the general focus on ageing as a distinct national policy theme (Jones et al. 2007) and is difficult to justify, given the projected growth in the percentage of older renters, and the fact that older people in private rentals form a significantly disadvantaged social group (Kelly 2009b). The needs of older people are diverse and may change rapidly as a result of illness, the onset of frailty, and the loss of support networks. These factors differentiate their needs from those of the broader population and introduce additional complexity into housing for older people over and above that present for affordable housing generally. In addition, baby boomers’ expectations of housing, and their social support needs, will be different from those of previous generations. It will, therefore, be important to provide a diverse range of affordable congregate housing that provides opportunities for both social support and engagement.
Chapter 9: Financial Security in Later Life

9.1 Introduction

This chapter examines baby boomers’ retirement income expectations within the context of a policy environment that increasingly emphasises self-insurance over public provision. This shift has occurred within a context of increased uncertainty in which the labour market is more precarious, financial investments are subject to global influences, housing is less affordable, and family relationships less stable. In addition, longer life expectancies mean that financial resources will need to last for longer. Chapter 5 showed that a substantial proportion of the baby boomer cohort has given little thought to later life with a considerable proportion of at-risk groups feeling that there is ‘little point in planning’. This chapter examines how income expectations and savings vary among different subgroups of baby boomers and the extent to which public protection mechanisms for financial security are likely to be adequate. The second section of this chapter discusses the rationale underpinning Australia’s retirement income system and outlines its core components. Section three reports results from the NWAHS in relation to the financial resources baby boomers expect to have in retirement while the fourth section discusses issues associated with income provision in the context of these results and the current policy framework for retirement incomes.

9.2 The Australian Retirement Income System

For most of the 20th century the Australian retirement income system has been based on a two-pillar system consisting of a means tested publicly funded age pension and voluntary savings. However, in 1992 it was reconfigured as a three-pillar system through the addition of a compulsory savings component in the form of the Superannuation Guarantee (SG) (Henry 2008). This was partly in response to the fiscal challenges posed by structural ageing but also to growing demands by unions for workers to have access to employer-sponsored superannuation (Bateman 2007).
The three-pillar retirement income system is the model most favoured by the World Bank (Holzmann 2000:20) as it allows a distinction to be made between poverty reduction (the Age Pension) and income replacement goals (the SG and voluntary savings pillars). It also makes it possible to spread the macroeconomic, political and demographic risks that are associated with the provision of retirement income within a context of structural ageing and a global financial system. The diversification of risk is particularly important given both the volatile nature of investment in a global economy and the need to effectively manage longevity risk. Although under the three-pillar system more risk is devolved to the individual, the reduction of risk to the Government contributes to a more stable national economy and helps to ensure the continuance of essential government supports. The Pension also acts as a safety net in the event that individuals do not consider, or miscalculate, longevity risk.

Similarly to Australia, the majority of OECD countries support individuals with limited attachment to the workforce through a taxpayer funded means tested minimum retirement income (Henry 2008:9). Many OECD countries complement this with a national social insurance system that operates on a defined benefit principle. That is, it pays a guaranteed retirement income usually configured as an after tax replacement of an individual’s pre-retirement income. This is generally funded from individual contributions and levies on wages and is supplemented from government revenue (Henry, 2008). Under the social insurance system the risks associated with investment, longevity and inflation are primarily borne by government. However, under the system there is always a risk that future governments may alter entitlements in response to rising costs with this tending to undermine the notion of a ‘guaranteed’ income (Henry 2008:10).

In 2008, the Australian Government commissioned reviews of both the taxation (the Henry Review) and pension (the Harmer Review) systems. The Henry Review, which contained a separate section on the retirement income system, clarified the relationship between self provision and government provision as follows:

The three-pillar architecture should be founded on the presumption that the responsibility for providing for retirement is shared between government and individuals. Governments should provide for minimum and essential needs and

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facilitate self-provision. Each of these goals should be pursued in an equitable and targeted way. Individuals should save or insure during their working lives to provide resources in their retirement. Inevitably under this approach, retirement outcomes will differ for different people, depending on the extent to which they can and do make self-provision.

Henry 2009; Finding 2:1

Hence, although the evolution from a two- to a three-pillar model reflects a distinct policy shift towards encouraging individual responsibility for financial provision in retirement, the public pension component of the system continues to be recognised as important and necessary. The purpose and aims of the retirement system are summarised by the five guiding objectives identified in the Henry Review and set out in Table 9.1.

Table 9.1: Guiding Objectives for the Australian Retirement Income System

<table>
<thead>
<tr>
<th>Source: (Henry 2009:6-7)</th>
</tr>
</thead>
</table>

The decision to retain the three-pillar architecture has been justified on the basis that it has strong community support; the ability to address the objectives listed above; and the capacity to provide a platform from which risk can be shared (Henry 2009:1). The following two subsections briefly describe each of the three pillars.
9.2.1 Superannuation and Voluntary Savings

The aim of the voluntary and compulsory savings pillars is to facilitate the generation of greater private savings for retirement thus reducing reliance on the Age Pension and enabling a retirement income that is more closely linked to an individual’s working income and that is well above the income that is possible from the Age Pension alone (Gallagher and Preston 1993:6). Retirement income generated through the SG pillar is based on a defined contribution rather than a defined benefit system and hence reflects the contributions made and the returns on the investment (Henry 2008). In addition, neither the capital nor the earnings of superannuation funds are guaranteed by the Government. This means that it does not automatically provide a guaranteed income at a replacement level linked to earnings because individuals’ savings are subject to fluctuations in the global economy and the degree to which a person has been continuously attached to the workforce. Under the SG, employers are required to contribute a minimum of 9 per cent of employee earnings into a complying superannuation fund or a retirement savings account. However, employers are not required to make contributions for employees earning less than $450 a month, for those under 18 years who are working less than 30 hours per week, for those aged 70 years and older and in some other special circumstances (Kelly 2009b:11). Although it is the employer who makes the contribution, employees have to some extent borne the cost of the SG ‘... through lower wage growth at the time the SG was introduced’ (Henry 2008:5). Hence, the SG is a way of ensuring that current consumption is deferred in favour of a higher income in retirement. In addition, it counters the effect that the Age Pension might have on the propensity to save and

29 The Australian Government has recently made a commitment to progressively increase the contribution to 12 per cent by 2019-20 (Treasury. 2010c).

30 Recent legislation has raised the age limit to 75 commencing from 1 July 2013 (Treasury. 2010e).

31 The SG system has its genesis in the Accord negotiated between the Government and the union movement in 1986. In the Accord it was agreed that while compensation to employees would be increased by 6 per cent to keep pace with inflation half of this increase would accrue in the form of a 3 per cent employer superannuation contribution in lieu of a wage rise. Thus wages growth was effectively slowed, with those employees who had access to occupational superannuation forgoing a portion of their wages in favour of an increase in future retirement incomes (Bateman 2007:6).
distributes the risks associated with retirement income provision more evenly between individuals and the Government (Henry 2008).

Retirement funding through the SG will reach maturity in 2037, 35 years after the first year in which compulsory contributions have been made at the full 9 per cent rate (Kelly 2009b). A desirable target for achieving an adequate living standard in retirement for a person on average earnings is considered to be a replacement rate of 70-80 per cent of pre-retirement expenditure, with this equating to 60-65 per cent of gross pre-retirement income (Senate Select Committee on Superannuation 2002 in Kelly 2009:11). At the time of its introduction, Treasury estimated that, when mature, the SG would provide a gross superannuation income stream of around 40 per cent of final salary (Gallagher and Preston 1993). Hence, although individuals on high incomes who had continuous and uninterrupted employment might derive sufficient income from super alone, it is expected that the Age Pension will remain a key income source for median and average income earners as well as providing some income support even to those who earn over the weekly ordinary time earnings (AWOTE) (Henry 2008). However, once the system has matured the retirement income system will shift from one ‘... where superannuation supplements the Age Pension to one where the Age Pension supplements superannuation’ (Henry 2008:7).

Prior to July 1997, employer sponsored superannuation schemes were taxed at three points: at the time funds were invested; on the earnings accrued by the fund; and on withdrawal of end benefits (Felmingham et al. 2008). End benefits were taxed at 15 per cent provided entitlements were less than a Reasonable Benefit Limit (RBL), with benefits above this limit being taxed at the full marginal rate (Felmingham et al., 2008). In 2007, as part of a raft of reforms to the superannuation system, the 15 per cent tax on end benefits, and the RBL, was removed (Felmingham et al. 2008). Currently, the effective tax rate for contributions made under the SG is a flat 15 per cent on contributions and 15 per cent on earnings. Benefits paid from a taxed superannuation fund to a person 60 years or over are tax free; however, if the

32 This estimate was based on 9 per cent of salary plus a 3 per cent employee contribution over a contributory period of 40 years (Gallagher & Preston 1993:10).
benefit is taken out as a lump sum and invested elsewhere, investment earnings will be taxed (Australian Securities and Investments Commission 2010). The preservation age is currently 55 years for those born prior to 1 July, 1960, but progressively increases for those born after this date reaching age 60 by 2024 for those born after 30 June, 1964 (Treasury 2010f)\(^{33}\). On reaching the preservation age, superannuation can be taken as either a lump sum payment or as an income stream. In addition, the introduction of the Transition to Retirement Measure (2005) allows employees who have reached the preservation age, and wish to reduce their working hours, to maintain their income by accessing their superannuation benefits through an income stream (Walter et al. 2008).

The voluntary savings pillar ‘... enables individuals to choose how much they save, and the investment vehicle in which they save, to achieve a higher retirement income’ (Henry 2008:5). Voluntary savings include personal contributions to superannuation over and above the amount mandated by the SG and non-superannuation savings such as deposits, real estate and shares, which may or may not be intended for retirement. Investment in home ownership is also considered a voluntary form of saving (Henry 2008).

The Government supports the voluntary and compulsory savings pillars through a variety of tax concessions. These are delivered through a number of mechanisms such as the extension of the 15 per cent concessional tax rate to voluntary contributions up to a certain limit, a government co-contribution for additional contributions made by individuals on low incomes and contributions made on behalf of a spouse who is not employed. However, the way in which tax concessions are structured are often viewed as inequitable and as generally benefiting higher income earners who can afford to save more (Henry 2008). For instance, the flat tax rate for all superannuation concessional contributions means that low income earners receive little or no concession. A key finding of the Henry Review (2009:3) was the need to ‘... distribute assistance more equitably between high and low income individuals’ and by ‘... limiting generous salary-sacrifice concessions’.

\(^{33}\) Individuals with special circumstances can access their superannuation earlier (Henry 2009).
9.2.2 The Age Pension

The purpose of the Age Pension is to provide a guaranteed minimum income to those who have no, to moderate, private means (Henry 2008). It aims to provide an acceptable standard of living but the emphasis is on poverty alleviation rather than the provision of a replacement income linked to workforce earnings. The current base rate of the Australian Age Pension (2009/10) is $644.20 per fortnight for singles and $485.60 each for couples. However, the total pension package is worth more than this due to additional allowances and supplements. For instance a single home owner with little or no income would receive a base amount of $701.10 per fortnight, around $18,228 per year, as well as a range of concessions available through the national Pensioner Concession Card and other state based concessions for seniors. Details of available payments, supplements, and means testing for both non-Pensioner and Pensioner seniors are contained in Appendices 6.1 to 6.3. Eligibility for the Pension is based on age, length of residency and a test of means based on both assets and income. The Pension is indexed with reference to three measures: Male Total Average Weekly Earnings (MTAWE), the Consumer Price Index (CPI); and the Pensioner and Beneficiary Living Cost Index (PBLC) (Commonwealth of Australia 2009b). MTAWE acts as a benchmark for community living standards and is the measure used to determine the Pension rate (Commonwealth of Australia 2009b). Rates are adjusted in March and September and single adult rates are currently set at 27.7 per cent of the MTAWE, with a proportional flow-on to couple rates (Commonwealth of Australia 2009b). The other two measures are used to ensure that the payment rate keeps pace with price changes. In this respect the CPI is used to index relevant eligibility thresholds for the Age Pension but the PBLC Index is used to index base pension rates where it is higher than the CPI (Commonwealth of Australia 2009b:7). The PBLC has been developed in response to findings from the Pension Review and is specifically designed to take into account the expenditure patterns of pensioner households (Commonwealth of Australia 2009b; Harmer, 2009). The amount of pension received is determined by the means test with the final payment rate being based on whichever test (assets or income) gives the lower rate. Each test has a ‘free’ threshold but income or assets over these thresholds reduce the fortnightly rate of payment by an amount fixed by the Government (Commonwealth of Australia 2009c). The means test is a primary mechanism for ensuring...
that the Pension is targeted to those most in need and also acts to limit potential budgetary cost (Commonwealth Treasury of Australia 2001). The value of the Pension is lifted considerably by the Pensioner Supplement (maximum value single rate $56.90 per fortnight) and the Pensioner Concession card both of which are available to those on either a full or a part pension. Additional allowances are available depending on circumstances and include Rent Assistance, Remote Area Allowance and Mobility Allowance.

9.3 Baby Boomers - Self-insurance

This section uses findings from the NWAHS to identify the personal financial resources baby boomers expect to bring to retirement. In doing this it seeks to establish which subgroups of baby boomers are most likely to rely on public protection to supplement the provision they make for themselves. It examines expected sources of income in later life, beliefs about the adequacy of expected income in later life, and changes made to savings habits over the last five years.

9.3.1 Expected Source of Income

The expected source of income question was originally in a single response format, however, due to an administrative error it was asked in a multiple response format. Although this made it difficult to establish the ‘main’ source of income it did provide more detail and made it possible to identify the percentage who nominated only one category, the percentage of cases which nominated each category, and the percentage of cases that nominated combinations of categories.

Figure 9.1 shows that of the 73.9 per cent who nominated only one source of income, the majority (48 per cent) nominated superannuation or self-funded investments, with a comparatively small proportion expecting to rely solely on the Age Pension (18.3 per cent). A similar trend is evident when the whole sample is examined, including those who nominated more than one income source. However, the inclusion of those who ticked more than one source of income provides a more accurate picture of the percentage that will have at least some reliance on the Pension, with this increasing to 35.3 per cent while the percentage
expecting some income from superannuation or self funded investments increases to 81.8 per
cent. Although not shown in Figure 9.1, around 4 per cent did not know what their income
source would be. Those nominating this category were more likely to be in the 1956-65
cohort, to be female and to be in an at-risk group. However, as Table 9.2 shows, most of those
in at-risk groups had double or more than double the percentage in the Pension only category.

Figure 9.1: Expected Income Source – Baby Boomers 1946-1965

<table>
<thead>
<tr>
<th>Income Source</th>
<th>Percentage</th>
<th>P Val</th>
<th>Percentage</th>
<th>P Val</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Super</td>
<td>40.0%</td>
<td></td>
<td>34.6%</td>
<td>.001</td>
<td>23.0%</td>
</tr>
<tr>
<td>Pension</td>
<td>30.1%</td>
<td>.001</td>
<td>37.8%</td>
<td>.000</td>
<td>21.6%</td>
</tr>
<tr>
<td>Self Funded</td>
<td>13.9%</td>
<td>.006</td>
<td>23.5%</td>
<td>.143</td>
<td>19.0%</td>
</tr>
<tr>
<td>Work only</td>
<td>10.0%</td>
<td>.000</td>
<td>19.5%</td>
<td>.000</td>
<td>4.2%</td>
</tr>
</tbody>
</table>

Note: ‘other’ (1.5%) and ‘don’t know’ (4.6%) have not been included in the graph.
Source: NWAHS TFU Survey 2 (CATI), 2007

Table 9.2: Percentage Nominating Only One Income Source – Super, Pension and Other
– At-risk and Mainstream Subgroups

<table>
<thead>
<tr>
<th>Subgroup</th>
<th>Pension Only</th>
<th>P Val</th>
<th>Super Only</th>
<th>P Val</th>
<th>Other Sources</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Couples</td>
<td>14.9%</td>
<td>.000</td>
<td>34.6%</td>
<td>.001</td>
<td>23.0%</td>
<td>834</td>
</tr>
<tr>
<td>Singles</td>
<td>31.4%</td>
<td></td>
<td>22.8%</td>
<td></td>
<td>24.6%</td>
<td>215</td>
</tr>
<tr>
<td>High Income</td>
<td>9.4%</td>
<td>.000</td>
<td>37.3%</td>
<td>.000</td>
<td>23.3%</td>
<td>656</td>
</tr>
<tr>
<td>Low Income</td>
<td>35.5%</td>
<td></td>
<td>19.3%</td>
<td></td>
<td>21.3%</td>
<td>290</td>
</tr>
<tr>
<td>Not Depressed</td>
<td>16.4%</td>
<td>.006</td>
<td>33.0%</td>
<td>.143</td>
<td>23.0%</td>
<td>919</td>
</tr>
<tr>
<td>Depressed</td>
<td>26.2%</td>
<td></td>
<td>26.6%</td>
<td></td>
<td>24.3%</td>
<td>131</td>
</tr>
<tr>
<td>Not Retired</td>
<td>15.8%</td>
<td>.000</td>
<td>33.5%</td>
<td>.009</td>
<td>23.7%</td>
<td>937</td>
</tr>
<tr>
<td>Retired</td>
<td>33.1%</td>
<td></td>
<td>21.3%</td>
<td></td>
<td>21.0%</td>
<td>113</td>
</tr>
<tr>
<td>Planners</td>
<td>11.1%</td>
<td>.000</td>
<td>37.8%</td>
<td>.000</td>
<td>21.6%</td>
<td>577</td>
</tr>
<tr>
<td>Non-planners</td>
<td>23.4%</td>
<td></td>
<td>26.5%</td>
<td></td>
<td>27.0%</td>
<td>360</td>
</tr>
</tbody>
</table>

Note: Percentages do not add to 100 because only 74.5 per cent of sample nominated one income source
Source: NWAHS TFU Survey 2 (CATI), 2007
Expected income source also varied by cohort and gender. Members of the 1956-65 cohort were significantly more likely to nominate superannuation and/or self funded investments and less likely to nominate the Pension, with this probably reflecting their access to superannuation earlier in life. Males were more likely to nominate self-funded investments while females were more likely to nominate the Pension; however, there were no gender differences with respect to superannuation. This suggests that while access to superannuation has improved for women, their superannuation balances remain low in comparison with males.

When the whole sample is examined, including those who nominated more than one income source, the results are similar, with Figure 9.2 showing that at-risk groups were significantly more likely than their mainstream counterparts to nominate the Pension and most were less likely to nominate the superannuation or self funded categories. These differences reflect the consequences of marginal attachment to the workforce and the generally lower incomes of at-risk groups.

**Figure 9.2: Percentage of At-risk and Mainstream Subgroups Nominating more than One Income Source**

*p<0.05; **p<0.001
Note: Based on multiple response question. Per cent=per cent of cases
Note: ‘other’ and ‘don’t know’ have been excluded
Source: NWAHS TFU Survey 2 (CATI), 2007
Figure 9.3 shows that the majority of those who nominated more than one category expected to derive income from a combination of superannuation and the pension. The second most common combination was superannuation and self-funded, however, this was largely confined to mainstream groups and, not surprisingly, 75 per cent of these currently earned more than $60,000 per annum. Apart from the self-funded and superannuation combination, there were no significant differences between at-risk and mainstream groups. The patterns associated with expected income source suggest that the voluntary private savings pillar in Australia’s retirement income system is somewhat under-developed with most baby boomers having a fairly passive role in accumulating savings for later life.

**Figure 9.3: Expected Income – Multiple Sources – Baby Boomers 1946-1965**

![Bar chart showing expected income sources for Baby Boomers 1946-1965.]

Source: NWAHS TFU Survey 2 (CATI), 2007

Expected income source data were also compared with data from the 2008-09 Retirement and Retirement Intentions Survey (ABS 2009c), based on persons in the labour force aged 45 and over who intend to retire. ABS data is not directly comparable with NWAHS data, partly due to differences in the way the question was asked but also to the lack of specificity in relation to age range, however, given that the average intended age of retirement was 63.4 years the majority of respondents in the ABS survey are likely to be baby boomers. As Figure 9.4 shows, the overall trends are similar.
9.3.2 Adequacy of Income in Later Life

As Figure 9.5 shows, 42.7 per cent of respondents expected to have ‘enough money to live comfortably’ in later life with another 40 per cent expecting to have ‘just enough’. Around 15 per cent expected they would ‘not have enough to make ends meet’ or ‘didn’t know’ whether they would have enough. These results suggest that while the percentage anticipating some income from superannuation or self funded investments is high, the amount of private income expected from these sources is, for around 40 per cent of respondents, likely to be relatively low.
As shown in Figure 9.6, a considerable proportion of the 15 percent who expect to have inadequate incomes is made up of those in at-risk groups. Members of these groups were significantly less likely than their mainstream counterparts to think they would ‘have enough to live comfortably in retirement’ and significantly more likely to feel they would ‘not have enough to make ends meet’. However, the category most commonly selected by at-risk groups was ‘just enough’ with around 45 percent selecting this category. The retired group differed markedly from the other at-risk groups and was generally on a par with mainstream groups. However, retirees on a low income or suffering from depression were significantly more likely to say they wouldn’t ‘have enough to live comfortably’. Being single had less impact and while only 44 percent of retired singles compared to 53.1 percent of retired couples said they would ‘have enough to be comfortable’ this was not statistically significant.

**Figure 9.6: Adequacy of Later Life Income – At-risk and Mainstream Subgroups**

Further analysis showed that beliefs about the adequacy of expected income in later life were mediated by housing tenure and health. Figure 9.7 shows that individuals with three or more chronic conditions were less likely to think they would have ‘enough to live comfortably’ and more likely to think they would ‘have just enough’ or would ‘not have enough to make ends meet’.

*Source: NWAHS TFU Survey 2 (CATI), 2007*

*p<0.05; **p<0.001*
Figure 9.7: Adequacy of Expected Income by Chronic Condition Status

![Bar chart showing the adequacy of expected income by chronic condition status.](chart)

Note: *p value=<.05
Source: NWAHS TFU Survey 2 (CATI), 2007

Figure 9.8 shows that those who owned their home outright were significantly more likely to say they would ‘have enough to live comfortably’ than either renters or those with a mortgage, while renters were more likely than owners to think they would ‘not have enough to make ends meet’ or to ‘not know whether they would have enough’.

Figure 9.8: Adequacy of Expected Income by Housing Tenure

![Bar chart showing the adequacy of expected income by housing tenure.](chart)

Note: **p value=<.001
Source: NWAHS TFU Survey 2 (CATI), 2007
9.3.3 Plans to Improve Savings

A recent NATSEM report (Kelly and Gong 2010) on the savings behaviour of Australians noted that the non-home savings of those close to retirement (55-64 year age group) averaged only $51,000. In addition, the report found that those aged 45-54 were saving more than those in the 55-64 age group. This is probably attributable to lower labour participation in the older age group with those not in the labour force typically saving less than 2 per cent of their income (Kelly and Gong 2010). In the NWAHS, just over half of all baby boomers had made changes to their savings habits over the last five years. Of the remainder, 10.6 per cent ‘intended to make changes in the future’ and 34.6 per cent had ‘no intention of making changes’. Figure 9.9 shows differences in the savings plans of at-risk and mainstream groups. Although singles were just as likely as couples to ‘have made changes’, the depressed, low income and non-planners were significantly less likely to have done so and, with the exception of the depressed, were more likely to have ‘no plans to make changes’.

Figure 9.9: Changes Made to Savings Habits – At-risk and Mainstream Subgroups

* $p<0.05; ** $p<0.001
Source: NWAHS TFU Survey 2 (Postal/online), 2007

34 This included cash deposits, reducing a mortgage, shares, super, other property loans, business, reducing other debt (Kelly and Gong, 2010:22).
Of those who had ‘no plans to change their savings habits’, 58.2 per cent felt their ‘current habits were satisfactory’, while 41.8 per cent ‘could not afford to save more’. Reasons for not saving did not vary significantly by cohort or gender, however, higher percentages of females (9.3 per cent more) and the 1946-55 cohort (5 per cent more) felt they ‘could not afford to save more’, with this approaching significance for the 1946-55 cohort (.061). Figure 9.10 shows that singles and those on low incomes were the least likely to feel their ‘current savings habits were satisfactory’, but there were no significant differences between the other at-risk and mainstream subgroups. Although 65.5 per cent of baby boomers have made, or intend to make, changes to their savings with a ‘view to improving later life outcomes’, data from the NATSEM report cited above suggests that even greater changes to savings patterns will be needed if financial outcomes in retirement are to be improved (Kelly and Gong 2010).

Figure 9.10: Reasons for not Changing Savings Habits – At-risk and Mainstream Subgroups

Although the SG was implemented too late to be of significant benefit to many baby boomers, data presented above suggests that the balance between superannuation and the pension is...
beginning to shift in favour of superannuation, at least for younger members of the cohort. However, the extent to which baby boomers’ actual source of income in retirement will reflect the expected source is yet to be seen. As shown in Table 9.3, average superannuation balances for this cohort are not high, particularly for women, and it is likely that baby boomers overestimate the extent to which superannuation will contribute to their retirement income (Kelly and Harding 2007; Jefferson and Preston 2005; Olsberg 2005; Kelly and Harding 2004; ABS, 2009a; Kelly 2009a).

Table 9.3: Average Superannuation Balances – Baby Boomers 1946-1965

| Source: (Kelly, 2009a: Appendix, Table 6) |
| NOTE: This table is included on page 265 of the print copy of the thesis held in the University of Adelaide Library. |

Nevertheless, the proportion of older people who received an Age Pension three decades ago was significantly higher than the proportion of baby boomers who expect to receive a part or full Pension, reflecting the increasing role for private savings generated through the SG as well as some tightening of the eligibility criteria for receipt of the Pension\textsuperscript{35}. For instance, in 1982, 75 per cent of people of Age Pension eligibility age received a pension with this falling to 59 per cent in 1991 and rising again to 68 per cent in 2008. However, the increased take-up in 2008 was ‘… accompanied by a reduction in the proportion of recipients receiving the maximum amount of Age Pension; from 67% in June 1991 to 56% in June 2008’ (ABS 2009a:39). Treasury projections of future reliance on the Age Pension, estimate a decline in the proportion receiving the full pension from around 60 to 38 per cent over the next 40 years but only a small increase in the proportion receiving no pension, from 20 to 22 per cent (Treasury 2007). By contrast, around 65 per cent of baby boomers in the NWAHS study did not nominate the Pension as an income source in retirement.

\textsuperscript{35} In 1982 all individuals age 70+ were eligible for an Age Pension regardless of income but this provision was removed in 1983 (Hugo 1986).
Ultimately, the SG will improve retirement incomes for a significant proportion of the population. However, as the data above shows, this is less likely to be the case for women, and for those in at-risk groups, who have had less opportunity to accumulate superannuation and are more likely to rely solely, or in large part, on the Age Pension. For at-risk groups this lack of opportunity is linked to higher rates of divorce, lower incomes, less education, poorer health and more marginal attachment to the workforce and hence their opportunity to contribute to superannuation has been more constrained. The reduced ability of women to accumulate superannuation is due to a number of structural factors. Firstly, they frequently have interrupted work careers due to child-bearing and raising responsibilities (Burns 1996; Olsberg 2005; Warner-Smith et al. 2006), which means that they generally spend around 35 per cent less time in the labour force than men (Jefferson and Preston 2005). Secondly, they are more likely to begin working life in lower status occupations with lower pay and to remain in such occupations (Preston and Jefferson 2002). Thus, while social change may have given many women a ‘room of their own’, the proportion with a substantial income of their own still lags considerably behind that of men, albeit, it is considerably larger than that of their pre-war counterparts (Figure 8.5, Chapter 8). In addition, while family allowance, child care rebates, and maternity leave provide some monetary recognition of the economic losses incurred by women who raise children, this support assists the family not individual women. Although this works well while the family remains intact, women are generally more disadvantaged than men in the event of marital breakdown. This is because women frequently lose access to their partner’s superannuation and, subsequent to the divorce, have greater constraints on their employment capacity due to the factors noted above. Although legislation now allows superannuation to be considered as an asset for distribution in divorce proceedings, a 50 per cent split in accumulated superannuation balances may not sufficiently compensate for the loss of future earnings, or the loss of the capacity to accumulate additional superannuation that this entails (Jefferson and Preston 2005:86). These factors explain why females in the NWAHS, who were just as likely as males to select superannuation as an income source in retirement, were also significantly more likely to select the Pension. Hence, while data from the NWAHS suggests that the superannuation to pension ratio is shifting in the direction of superannuation this is more likely to be the case for males than females. Indeed, while Kelly (2009a:18) notes...
that ‘… it will be some time before men and women have equal balances’ it may be more accurate to surmise that in the absence of another significant shift in gender roles, or in the economic value attributed to ‘women’s work’, it is unlikely that the gender gap in superannuation will ever be bridged.

9.4.1 Retirement Income Policies and the Equity of Self-reliance

The Government’s main strategy for increasing superannuation balances and decreasing future reliance on the Pension has been to lift and extend labour participation, although this has also been combined with a series of changes to the superannuation system designed to increase access to superannuation and encourage additional contributions. Two of the initiatives to extend labour participation include an increase in the eligibility age for the Age Pension to 67 years and an increase in the superannuation preservation age to 60 years. As both of these measures are being introduced gradually their impact on baby boomers will differ according to birth year but both will have more impact on members of the 1956-65 cohort (Appendix 6.4). Initiatives to increase labour participation in older individuals who are not yet eligible for the Age Pension include the cessation or phasing out of some payments primarily directed at mature age recipients, such as Widow’s Allowance and Mature Age Allowance, and the tightening of eligibility criteria for the Disability Pension (Carson and Kerr 2003; ABS 2010).

These strategies to lift and extend labour participation are reasonable within a context of structural ageing in which life expectancies, and hence the retirement period, are much longer than in the past (Harmer 2009) and, for individuals in secure employment and good health, are unlikely to cause undue hardship. However, many individuals who retire early do not do so from choice but are forced into retirement due to marginal employment opportunities or poor health. ABS (2009c) data show that in the 45-55 age group the primary reason for early retirement is ill-health/disability (37.9 per cent), followed by retrenchment/no work available (15.7 per cent). Although the primary reason given for retirement in the 55-64 age group is access to retirement funds (43.4 per cent), and hence is more likely to reflect choice in retirement rather than constraints on the ability to work, the percentages citing ill-health/disability (19.9 per cent) and retrenchment/no work available (9.1 per cent) are still substantial. In the absence of proactive measures to improve health, and to increase the
employment opportunities available to those at risk of early retirement, initiatives such as those described above will only partially address the problem and may cause hardship among disadvantaged groups in the older population.

Chapter 7 showed that older individuals with low levels of education are the most likely to have poor labour participation. This is consistent with other research that has found that less educated males are more likely to be in casual work or to experience periods out of the workforce (Hugo et al., 2009). As casual work is the least likely to offer on the job skills and training these older workers are disadvantaged and their future employability reduced. Equally, the depressed had the poorest health and the highest percentage in the unable to work category. If the initiatives described above are to benefit these groups rather than to increase adverse outcomes it will be necessary to implement a range of additional policy initiatives that support their ability to be self reliant through greater engagement in the workforce.

In addition to lifting labour participation rates, there is also a need to continue to address some of the fundamental inequities that exist in an occupational-based superannuation system premised on continuous attachment to the workforce over a substantial portion of the life course. Currently, the government is proposing two changes to superannuation law that would benefit low income earners, older workers who have not had the full benefit of the SG, and women. The first is a proposal to permanently extend the $50,000 concessional contributions cap for individuals aged 50 and over who have superannuation balances of less than $500,000. This will benefit women whose child-raising responsibilities have minimised or precluded their ability to save during prime employment years, because it will enable them to make additional contributions at the concessional rate during a stage in their life when they are most likely to be able to do so. However, it will primarily benefit women in full-time well-paid positions. The second proposal consists of a tax rebate of up to $500 for individuals on incomes of up to $37,000 per annum. It reduces the previous inequity, wherein many low income earners did not benefit from the 15 percent concessional tax rate on mandated superannuation contributions (Henry 2009).

36 These changes have not yet been passed by Parliament (2 August, 2010) (Treasury. 2010d).
Although these proposed changes contribute to greater equity for individuals who are able to make contributions they do not enhance access to superannuation for those with broken work patterns or who are marginally or not attached to the workforce. For instance, individuals with low skill levels or caring responsibilities often have little choice but to take on multiple low paying casual jobs. Although the composite amount earned through these jobs may be sufficient to qualify them for an employer superannuation contribution, the derivation of this income from several employers may effectively exclude them from such contributions. Currently, there is no relief in view for these individuals, with the Henry Review recommending that the $450 threshold be maintained because the compliance cost to employers, of providing SG contributions to marginally attached workers, is deemed to outweigh the benefit to employees.

9.4.2 The Adequacy of the Age Pension

The Age Pension is likely to form a key source of retirement income for baby boomers despite the fact that only 35.3 per cent nominated it as a source of income. This raises questions about the capacity of the Pension, in concert with other forms of public protection, to provide an adequate underpinning for later life, particularly for those in at-risk groups for whom it is more likely to form the primary or only source of income. Debates about the adequacy of the Pension are highly charged and reflect different ideological positions about its role; practical considerations about what is realistically sustainable within the context of structural ageing; and the best way of linking the Pension to community living standards. Given the broad scope of this chapter it is not possible to include a discussion of this debate here other than to briefly highlight the tension that exists between adequacy, equity and sustainability. Advocates of a more liberal Pension point out that more generous provision would assist older people to maintain their health and wellbeing and remain active and engaged in the broader community. In turn, this would deliver broad social dividends both through cost-savings to health and support systems and through maintaining the ability of older people to make an active contribution to society through economic and social participation and involvement with voluntary and community initiatives (COTA 2008). Given that Government rhetoric on strategies for ageing tends to valorise productive or successful ageing, then it would seem
reasonable to expect that this concept of adequacy would be consonant with that put forward by Government. However, for policy makers there is an inherent difficulty in assessing the extent to which the budgetary costs of financing a more generous pension can be justified by potential savings in health and services and by potential economic gains accruing from the increased economic and productive engagement of older people. In addition, the concept of social inclusion inherent in this perspective is also one which must apply across the whole community. It would not seem fair, for instance, to provide older people with a pension income that was more generous than that for younger people on a disability pension or than the income obtained by low income full-time workers (Harmer 2009). In this sense, adequate incomes for Pensioners are part of a broader issue that reaches into the heart of the extent to which we, as a community, are willing to facilitate the social inclusion and engagement of all individuals at all stages of the life course. The best way to alleviate disadvantage in old age is to reduce or prevent it across the life course. However, it also relates to the extent to which we are able to structure our policy and economic systems around this objective, given the constraints of a free market economy within a global financial system and within the context of structural ageing.

Subsequent to the recent Pension Review the government has implemented several initiatives to improve the adequacy of the Age Pension. These include: an increase in the relativity rate between single and couple pensions; an increase in the MTAWE benchmark from 25 to 27.7 per cent; the simplification of existing supplements and allowances into the Pension Supplement; and the development of the PBLC to better index base pension rates to the price changes most commonly experienced by Age Pensioners. Single Australian pensioners have long been significantly disadvantaged by a relativity rate of 60 per cent, which was low in comparison to the majority of OECD countries (63 per cent) (Harmer 2009), and which was also lower than that recommended on the basis of the OECD equivalence scale (66 per cent) (Kelly 2009b). However, as a result of the recent Pension Review this has been raised to 66 per cent, resulting in an additional $32.49 a week for single pensioners on the full rate of pension. Analysis by NATSEM prior to the Pension Reform package found that increasing the relativity rate to 66 per cent would reduce poverty rates for single pensioners by 10 per cent. In addition it would effectively target those most in need, with almost half of the
individuals benefiting from the increase being in the lowest income quartile and more than three-quarters being in the bottom three income quartiles (Kelly 2009b:23).

The Pension Review found that when the total pension package was taken into account, including base rates, supplements and the value of the Seniors Bonus, ‘... the rate of pension paid to couples appeared to be adequate for those pensioners living in their own homes or public rental housing, and without unusually high costs of health or disability. (Section 3.4.5)’ (Harmer 2009:xiv). This statement clearly indicates that the adequacy of the Pension is defined primarily in relation to the majority, who are assumed to be partnered and to have accumulated or retained certain ‘goods’ such as housing wealth and health. For those outside the majority, the Pension is clearly not sufficient unless complemented by additional services and assistance. As noted above, recent reforms have improved basic income levels and to some extent a meliorated the longstanding income inequality experienced by singles. However, the Pension Review clearly states that the extra costs incurred by those in private rentals or with poor health and/or disability should be managed outside of the Pension system. Hence, while recent Pension reforms have been beneficial for the majority, they offer only limited relief to those with greater disadvantage. This means that disadvantaged groups are more heavily reliant on the capacity of other public protection systems such as housing, health, and aged care services.

9.5 Conclusion

This chapter has shown that Australia’s retirement income system is, with some qualifications, relatively sound. The introduction of the SG represents a proactive response to social change in that it aims to facilitate self provision in a social environment where the risk management capacity of both the State and the family has decreased due to factors related to social change and structural ageing. Although increased risk is devolved to the individual, this is to some extent countered by reduced financial risk to government, which increases its capacity to act as a buffer in the event of a financial crisis. However, the effectiveness of the SG is premised
on continuous attachment to the workforce, and to some extent on the stability of marriage.\(^{37}\) This is ironic, given the significant transformations that both of these institutions have undergone over the last few decades. Indeed, in this respect, policy settings for both the Pension and the SG represent a degree of structural lag, as an increasing proportion of older people are likely to be single. In this sense, an occupational-based superannuation system premised on shared incomes would have yielded more benefits several decades ago. In particular, it is a system that disadvantages women as, while their labour force participation rates have risen dramatically, their capacity to benefit from superannuation is limited due to their interrupted work careers; at the same time, the comparative fragility of contemporary marriage means that complementary support from a partner’s superannuation is less certain.

Women, who may well participate more fully in the labour force later in life may have a short period of relative prosperity followed by a dramatic fall in income once they retire and thus experience a more marked contrast in their quality of life than their male counterparts. The rationale underpinning the three-pillar system is that those individuals who do not benefit from the SG will be caught in the Age Pension safety net. However, for individuals most reliant on the pension, such as the at-risk groups identified in this chapter, there are doubts as to its adequacy. Baby boomers’ expectations about their income in later life suggest that the SG is only really working well for the 42 per cent of this cohort who expect to be comfortable. Another 42 per cent expect to have only ‘just enough’ suggesting that for this group, the amount saved through the SG is unlikely to raise their incomes significantly above the Age Pension. The majority of the nine per cent who do not expect to have enough to make ends meet, nominated the pension as a source of income, clearly indicating that they have doubts about its adequacy. Expectations about the adequacy of later life income are clearly mediated by housing tenure and health – dimensions of public protection that are outside the pension system.

\(^{37}\) Clearly, superannuation can be effective for singles but it loses much of its efficacy couples when a marriage breaks down, particularly for women.
Chapter 10: Conclusion

10.1 Introduction

Over the last two decades the baby boom cohort has attracted increased interest from researchers and policy makers seeking to understand and/or influence their retirement behaviour and to manage the projected structural impacts of their departure from the workforce. Much of this research has focused on the wave effects created by the large size of this cohort and paid little attention to other important factors such as diversity within the cohort, or how social change might have influenced how baby boomers approach and experience the transition to later life. The first part of this thesis contextualised baby boomers historically by drawing attention to the significant social changes that have influenced their demographic and social behaviour, and facilitated the development of a fundamentally different world view and social context from that held and experienced by previous generations. This drew on socio-cultural and demographic theories of social change highlighting the reflexive and individualised nature of modern life and the asynchronies that arise as social change is integrated through natural processes of cohort replacement. These theories provided a foundation for the second component of the thesis that examined the extent to which different subgroups of baby boomers are prepared for later life. This analysis used a conceptual framework for preparation for later life that is consonant with reflexive modernity theory, and which enables the dynamic interplay between agency and structure to be observed through its framing of later life preparation in terms of both private and public provision. Assessment of private provision, through an examination of both self-protection and self-insurance resources, enabled the study to provide a more holistic view of later life preparation than previous Australian studies that have generally focused only on one of these domains.

This final chapter summarises the major findings of the thesis with reference to the initial research objectives. The second section summarises the findings with respect to the impact of
social change and the extent to which baby boomers are prepared for later life. The third section considers the policy implications of the findings while Section four considers opportunities for future research. The fifth section identifies some limitations of the thesis and Section six suggests implications for theory and data collection.

10.2 Summary of Major Findings

The first research objective focused on how baby boomers differ from their predecessors and on changes to the social context in which they are ageing.

10.2.1 Between Two Worlds

Baby boomers are a transitional generation caught between the traditional world of early modernity and the more individualised world of reflexive modernity. As such, their behaviour and characteristics should differ markedly from previous generations and this should be borne out by noticeable changes to traditional everyday institutions. Drawing on the method of inter-cohort comparison, as developed by Mannheim, Ryder and Riley et al., Chapter 4 sought to verify this proposal by comparing a sub-cohort of baby boomers, born 1952-1961, with a pre-war cohort, born 1927-1936. The comparison examined the social context in which each cohort matured, as well as changes to education levels, religious affiliation, marriage and family formation.

Chapter 4 showed that the first half of the 20th century was characterised by a shift from communal to collective structures in which public institutions increasingly took over roles that were previously the domain of families and the community. By contrast, the second half of the 20th century saw large shifts in traditional everyday institutions. Although the seeds of these changes began early in the century, with the emergence of progressive educational theories, the social reflexivity, which these engendered, was confined to an elite educated minority and hence did not result in the wide scale challenges to values, essential to the transformation of traditional everyday institutions. However, the period following the war was characterised by a confluence of social, technological and economic factors that generated
an environment conducive to a broad scale shift in values. One of the key factors underpinning this shift was the extension of education to the masses and the transformation of its content and methods. This democratisation of education was integral to a weakening of traditional institutions, and its implementation at this juncture constitutes a major point of difference between pre-war generations and baby boomers. Baby boomers had better access to education, a more liberal education and higher levels of education than their predecessors. This contributed to an increased secularisation of society, with the percentage of baby boomers nominating a religious affiliation or being actively involved in a church declining considerably from that of previous generations. Equally, Chapter 4 has shown that baby boomers were exposed to a broader view of the world through more advanced communication technologies. These factors encouraged the questioning of traditional authorities and institutions, and created an environment in which the focus on self-development and individual autonomy, key traits associated with baby boomers, were increasingly regarded as acceptable and desirable.

These ‘internal’ changes, together with external events such as the advent of the Pill, the intensification of the Feminist movement, and the development of the welfare state, paved the way for behavioural changes with respect to relationships, family formation, childbearing, gender roles and female labour participation. In general, the 60s and 70s reflect the dynamic interaction of structure and agency, with individual value changes initiating structural changes such as the introduction of child care facilities; an increase in sole parent families; and a variety of legislative changes relating to divorce, abortion, and female labour participation. These structural changes, in turn, facilitated the extension of behavioural change to a broader proportion of the population. Together, these changes constitute a second point of difference between baby boomers and their predecessors and framed a shift from a child-centred familial culture to a more individualistic model in which the marriage relationship and the female biography assume greater importance. The empirical indicators of this shift are found in the emergence of cohabitation as a pathway to marriage, high rates of divorce, lower rates of marriage, reduced fertility and an increase in lone person households. Chapter 4 has shown that associated with this shift is a higher premium placed on the capacity of relationships to provide personal fulfilment and, compared to previous generations, less...
emphasis on the mutual utility provided by marriage. Central to these changes, and indicative of a third key difference between baby boomers and their predecessors, is the ability of women to realise, directly, the liberal values of autonomy and aspiration at an individual level of achievement, rather than proxy through the male partner and the family. Women’s participation in the values of individual liberalism has altered the balance of power in gender relationships and facilitated their ability to have ‘individual’ lives. As demonstrated in Chapter 7, female baby boomers have much higher labour participation rates than their predecessors. However, while baby boomer women have had more choice, independence and equity than previous generations of women, their ability to achieve parity with men has been attenuated by their continued construction as both nurturer and worker. As Chapter 8 has shown, baby boomer women, particularly those who are divorced or separated, occupy a more precarious economic position in later life than men, largely because current social structures do not adequately deal with the additional risk women accrue from this dual role.

Chapter 4 has shown that social change has been an ongoing feature of baby boomers’ lives, influencing the shape of their life course, not only through their own interactions with social change, but also through the interactions of their parents and children. The combination of these interactions has significance for the social context in which baby boomers will age. Chapters 4 and 7 have shown that changes to child-bearing, marriage and family formation mean that baby boomers are likely to have less social support as they age. Equally, the caring demands on baby boomers in midlife are greater than for previous generations due to extended youth dependency, delayed child-bearing and the longer life expectancies of parents. The occurrence of these responsibilities within a context of increased female labour participation poses baby boomer women with unique dilemmas that did not confront previous generations of women.

Concomitant with, and linked to, the processes of reflexive modernity and individualisation is the spread of neoliberal philosophy, which has resulted in structural adjustments to the economy. One of the key outcomes of the spread of neoliberalism has been the restructuring of the labour force environment to more effectively meet the needs of a free market economy. The insecurity that this has introduced to labour force attachment constitutes a fourth point of
difference between baby boomers and their predecessors. The shift from permanent full-time work to part-time, casual and contract work, and the increased emphasis on human capital, flexibility, mobility and innovation, has required adjustments from baby boomers that were not required of the pre-war cohort. Chapter 7 has shown that while these changes facilitated the increased participation of women, male baby boomers had considerably lower participation rates than males from earlier generations. Although the impact on baby boomers varies according to a range of factors, including birth year, their capacity to develop and maintain a stable career has been more strongly mediated by their ability to be adaptive and entrepreneurial, to be personally active in the generation and maintenance of employment opportunities in a labour force environment characterised by increased uncertainty and personal risk. Although for some, this environment has provided greater choice and flexibility, others have been less fortunate. This is particularly so for those with less education and for individuals in manual work who have been more disadvantaged by the shift from a manufacturing based economy to one in which human capital and the services sector plays a greater role (McDonald and Evans 2003).

A fifth point of difference between baby boomers and their predecessors is found in the emergence of new constructions of old age and later life. Chapter 3 noted that for previous generations the term ‘retirement’ signified a clear-cut and permanent departure from the workforce. By contrast, contemporary notions of retirement are more flexible, varied, and individualised, and more frequently marked by uncertainty. Equally, the more negative constructions of old age and later life, which characterised much of the 20th century, have been replaced by a more positive approach, at least on the surface. This more positive view of ageing has been fostered by governments and facilitated by research underpinning successful or positive models of ageing, which have decoupled ageing from inevitable decline, and linked wellbeing in old age with healthy lifestyles. This, together with post-war affluence and the expansion of the welfare state in the third quarter of the century, contributed to the emergence of the concept of the Third Age. In addition, the transition from a demographically young population to one with higher proportions of older people means that the impact of this subgroup will be larger than for previous generations. However, the retraction of the welfare state that has occurred over recent decades has placed increased responsibility on the...
individual within a social context of greater risk and uncertainty. For many baby boomers this may well inhibit the realisation of expectations for later life that were formed in more optimistic times. Implicit in the diminution of state support is the expectation that individuals will ‘take up the slack’, however, as shown in Chapters 8 and 9, the facilitative environments required to assist individuals to do this have often lagged behind need and, in relation to later life preparation, baby boomers may well be the generation that misses out.

The second research objective sought to identify the key characteristics of baby boomers in terms of their socio-economic characteristics, their intentions/expectations with regard to later life and their health status.

10.2.2 Key Characteristics of Baby Boomers

Chapter 1 suggested that baby boomers are frequently portrayed in a simplistic and stereotypical way as healthy, wealthy and self-absorbed. Findings throughout this thesis contradict this homogenous image of baby boomers and demonstrate that there is considerable heterogeneity within the cohort. Chapter 5 identified marked differences between leading and trailing edge baby boomers some of which are due to age, and others to cohort effects. For example, cohort effects are evident in the lower education levels of females in the 1946-55 cohort while age effects are evident in the easing of work-life balance pressures in this cohort, more of whom were likely to be retired, to spend more time volunteering, to be caring for a partner rather than a child, to be widowed and to have reached the empty nest stage. By contrast, many in the 1956-65 cohort were still managing multiple commitments related to children and full-time work.

Chapter 5 showed that the retirement intentions of baby boomers have clearly been influenced by the global financial crisis (GFC) with ABS data showing a significant increase in the proportion of individuals who cited financial security as a factor influencing their retirement decision. In the past, women’s intended retirement age has been markedly lower than that of men’s; however, this is not the case for baby boomers as women, who intend to retire only marginally earlier than men. A large proportion of baby boomers intend to either move or
renovate in response to retirement. Although ‘sea and tree changes’ were the most popular destinations for movers, this is likely to be influenced by socio-economic status, with higher proportions of non-planners and early retirees nominating a move to another metropolitan area.

Chapter 6 showed that obesity poses a major risk for the future health of this cohort, with BMI $\geq 30$ and high waist hip ratio being the only risk factors to be significantly associated with having three or more chronic conditions. Although obesity and low levels of physical activity were highly prevalent across the whole cohort, their adverse effect on health is, not surprisingly, primarily evident in the older cohort, which was more likely to have chronic conditions and biomedical risk factors. Gender differences in chronic disease generally followed expected patterns with the exception of COPD, which was more prevalent among females, and os teoporosis and os teopenia, which clinical data showed to be more prevalent among males, though this was not statistically significant.

Several of the differences between the two cohorts probably reflect a mixture of age and cohort effects. Members of the 1946-55 cohort were more likely to be unemployed, and while this may reflect age discrimination, it is also likely to be due to their lower education levels, which were influenced by the timing of their entry into the school system. Another important difference between the two cohorts is the relative influence of gender, with gender differences being significantly more marked in the 1946-55 cohort in relation to education, health and income. There were no significant gender differences in education or income levels for the 1956-65 cohort; however, 1946-55 females were more likely to occupy the lowest three income categories and to have lower levels of education than males. Although this suggests that females in the 1956-65 cohort have benefited from a continued increase in gender equity, Chapter 8 has shown that income levels are still likely to diverge along gender lines in retirement. In relation to health, 1946-55 females were significantly less likely than males to smoke or use alcohol at risky levels; however, this was not the case in the 1956-65 cohort. This may indicate a gender convergence of lifestyle patterns for younger boomers, linked to higher levels of independence and labour participation among females.
The third research objective was to identify the type of planning different subgroups of baby boomers undertake and the degree to which they reflexively plan for later life.

10.2.3 A Different Approach to Examining Later Life Preparation

The second component of this thesis has taken a distinctly different approach to later life preparation in order to better account for the impact of social change on this transition. Its strong focus on self-protection enables it to contribute new knowledge about the non financial resources baby boomers bring to later life, while its use of a conceptual framework, which takes into account the conditions of reflexive modernity, has enabled it to identify disjunctions between public provision, self-insurance and self-protection in a way that would not be possible with a more traditional approach. In addition, based on the awareness that the capacity for health and wellbeing in later life is likely to vary within the cohort, due to processes of social interaction and the allocational dynamics of social structure, the second component of the thesis (Chapters 5-9) explored variations within the baby boom cohort by dividing it into five dichotomous subgroups and examining how ‘at-risk’ and ‘mainstream’ subgroups varied in their capacity to accumulate self-protection and self-insurance resources.

10.2.4 Do Baby Boomers Plan for Later Life?

Chapter 5 showed that despite the increased responsibility accorded to the individual for both financial and non-financial aspects of later life, a substantial proportion of the baby boomer cohort has given it little thought and will continue to rely on government support. The low level of planning among baby boomers is particularly evident in at-risk groups who experienced more barriers to planning and had fewer resources with which to plan. There was little differentiation between at-risk and mainstream groups with respect to informal reflexive planning related to the implementation of lifestyle changes; however, there was a general trend for mainstream groups to feel they didn’t need to make changes while at-risk groups were more likely to report that it was too difficult. However, for many baby boomers, there was still a considerable gap between healthy and actual lifestyles, even for those who had made changes or did not consider they needed to make changes.
Previous research has noted a strong association between retirement planning and wealth in retirement (Lusardi and Mitchell 2007b). Similarly, findings from Chapter 5 of this study showed that having a planning or intention positively influenced retirement income expectations. Hence, the high proportion who had given little thought to later life implies a need for cultural change towards both financial and non-financial planning for later life. However, the findings suggest that issues around planning are a result of both structural and individual lag. Baby boomers have not really caught up with changes in social policy that require them to take greater personal responsibility for the resources they bring to later life. Equally, government policies to encourage the lifestyles that will make the rhetoric around productive ageing a reality, have been slow in coming. To a lesser extent, this is also the case in the financial domain. Although the introduction of the SG will partially address financial security in later life, current policies designed to provide individuals with the tools they need to develop and manage financial resources in a world characterised by sophisticated and complex financial structures, do not appear to be adequate.

The fourth research objective was to explore how subgroups within the baby boomer cohort differ in terms of the financial and non-financial resources they will bring to later life.

10.2.5 How Financial and Non-financial Resources Differed between Subgroups

The Retired Group

Chapter 6 showed that the key differentiating factor for the retired group was poor health; however, on nearly all other measures they were equivalent to mainstream groups and, in some instances, doing better, with retirees having much higher levels of outright home ownership than any other group. Chapters 6 and 9 showed that, in general, the self-insurance portfolios of retirees were stronger than those of other at-risk groups, and more akin to those of mainstream groups. High proportions of retirees had hospital and extras health insurance and more of this group expected to be comfortably off in later life than any other subgroup. This is despite the fact that the proportion who expected to rely on the Age Pension was more closely aligned with at-risk than mainstream groups, thus highlighting the important role of
home ownership underpinning financial security in later life. However, a significant minority of this group is also likely to struggle financially suggesting that a proportion of early retirees is forced by ill-health or other circumstances into a premature, and less well resourced, retirement.

Chapter 7 showed that most retirees were more actively engaged in relation to social, volunteering and hobby activities than those who weren’t retired. Their social support resources were among the best, and although they were more likely than the mainstream to be widowed, slightly more of them were living in potentially supportive living arrangements, had good marital relationships, and had children. The percentage with four or more close friends was slightly less than that of the not retired, but they spent more time socialising and a higher proportion nominated every form of socialising, including informal and couple-based socialising. Higher proportions of the retired experienced a sense of community and a sense of meaning in life than any other group and, while they were significantly less likely to say that there was something they would love to do in later life, this is probably because they were already doing it. However, those with poor physical and mental health are likely to see a reduction in overall resources as they continue to age, and their capacity to be actively engaged already appears to be compromised, with only 25.9 per cent of those with poor self-rated health volunteering compared to 40.1 per cent of those with good self-rated health. The major policy concern in relation to this group is health.

The Singles Group

Being single clearly has a major influence on the capacity to generate and maintain both self-insurance and self-protection portfolios, with singles consistently having lower resources than couples across nearly all areas. Just over a third of singles were renting and nearly a third were on a government pension. When this is coupled with the fact that nearly half of the singles nominated the Age Pension as a retirement income source, it is not surprising that they also have the second highest proportion of any group to have income expectations that fall in the category ‘not enough to make ends meet’. Adding to the general sparseness of their self-insurance portfolio is the fact that only around 50 per cent had private health insurance.
In the self-protection domain they were most strongly differentiated in relation to social support and social integration. Although around 30 per cent of this group were single because they had never married, the majority were single due to divorce (57.9 per cent). The financial consequences of divorce for living standards in later life are well-known (de Vaus et al. 2007a) and these financial outcomes of divorce have flow-on effects to non-financial areas of life, because they reduce the resources that facilitate a better quality of life, such as security of housing tenure, and the ability to pursue personal goals and a variety of social and leisure activities (Kalmijn and van Groenou 2005). Singles are likely to have less social support because they are more likely to be living alone and to be without the support of a partner. In addition, they are less likely to have children, and the potential support available to those who do have children may be mediated by the effects of divorce (Millward 1997). Singles are socially integrated in quite different ways to couples. Although they socialised more often and had more friends than couples, they were less likely to nominate the most popular form of socialising in which activities centred on informal groups of friends. It is possible that their greater involvement in more structured groups can be explained as a compensatory mechanism for reduced access to more informal social activities and the loss of partner based recreation. Singles were also significantly more likely to wish to socialise more, suggesting that they felt less satisfied with their level of social integration than did couples.

The Depressed Group

The depressed constitute a significant policy group. They had by far the worst health and experienced considerable structural disadvantage. The depressed also had the highest proportions in marginal work categories, suggesting multiple associations between depression, poor physical health and labour force participation, with this view being supported by data presented in Chapter 6 (Section 6.5.3), and the analysis of changes in health over time contained in Appendix 4.11. It is, therefore, interesting to note that on the indicators for personal meaning, the depressed scored at least as well, and even a bit better, than the not depressed. Slightly more of them had hobbies or interests and were looking forward to doing something in later life that they couldn’t do now. This positive future orientation suggests that dissatisfaction with work may be an issue. Counter-balancing their slightly better scores on
indicators of personal meaning, the depressed had comparatively low levels of social support and social integration. They were less likely to have children, more likely to have a poor marital relationship and more likely to have fewer than four close friends.

The self-insurance portfolios of the depressed differed somewhat from those of other at-risk groups. Although they were the most pessimistic group with respect to the adequacy of their future retirement income, the proportion nominating the Age Pension was about 10 per cent lower than most other at-risk groups; however, they were still more likely than the non-depressed to nominate this as a retirement income source. In terms of housing tenure they were more likely than the mainstream to be renting, but had higher levels of home ownership than other at-risk groups, except for the retired. In contrast to most at-risk groups, their levels of private health insurance were virtually equivalent to those of mainstream groups.

The Low Income Group

The low income group experienced disadvantage across all self-protection areas. They stand out as having the lowest proportion in full-time employment (35.5 per cent) and were significantly more likely to be in precarious employment categories. Although the proportion with poor health was not as high as the depressed, it was much higher than the mainstream and considerably higher than singles or non-planners. In addition, this group had the lowest levels of physical activity. Despite this, a higher proportion of the low income group believed they were doing enough to maintain their physical health than any other group. Equally, the proportion attributing importance to healthy weight, exercise and diet was the lowest of any group. The perceptions this group has about the importance of lifestyle factors suggests a need to improve health literacy and to develop knowledge-based interventions. Low income earners had much higher rates of divorce and widowhood than any other group except for singles, thus making them a high risk group for inadequate social support in later life. Equally, there are indicators that social integration is also an issue, as they were significantly less likely to have four or more friends. The proportion of this group looking forward to doing something in later life that they couldn’t do now was the lowest of all groups, and money was clearly a major constraint in terms of improving and maintaining an adequate self-protection portfolio.
Not surprisingly, the self-insurance resources of this group were sparse. The ability to accumulate these resources is likely to have been influenced by low attachment to the workforce, with this being partly due to the much higher proportion of females in this group compared to the more even distribution in the high income group. Over half of low income earners nominated the Age Pension as an income source in retirement and just under half had private health insurance. However, this group is differentiated from other at-risk groups by relatively high levels of outright home ownership which, for some, will offset deficits in other forms of savings.

**The Non-planning Group**

Non-planners appear to have more self-insurance and self-protection resources than all other at-risk groups except for the retired. In addition, while their scores were consistent with other at-risk groups on a wide range of measures, their health was not significantly worse than their planning counterparts. However, while they were comparable to planners in relation to chronic conditions and self-rated health, they were significantly more likely to have three or more risk factors and, given that the majority of non-planners were in the 1956-65 cohort (66.6 per cent compared to 53.7 per cent of planners), it is likely that statistically significant differences for self-rated health and chronic conditions may appear in the future. In addition, non-planners generally had fewer social support resources as they were more likely to be living alone or to be sole parents and, compared to other planners, they were less likely to be married and more likely to be divorced or never married. After singles, they had the lowest level of outright home ownership and around 20 per cent were renting. However, of the at-risk groups, they had the lowest proportion nominating the Age Pension as an income source in retirement, and the lowest proportion who expected to have insufficient means to make ends meet. Although the proportion with health insurance was comparable with other groups they had the lowest proportion with both hospital and extras insurance.

Despite the fact that non-planners were generally doing better than other at-risk groups, their self-protection and self-insurance portfolios were quite sparse compared with the planning group. Non-planners were the most highly educated of the at-risk groups and were also more
likely to be female. Although they tended to have higher full-time employment rates and higher incomes than other at-risk groups this may only marginally improve their financial resources, while at the same time resulting in considerable non-financial costs in terms of work-life balance. Income gains may be marginalised through the loss of supplementary government benefits, and the capacity to maintain self-protection resources related to health and wellbeing may be compromised by longer working hours. Indeed, non-planners stood out from other at-risk groups in that the proportions nominating time and multiple commitments as constraints to adopting healthy lifestyles or socialising, were at least equivalent to and in some cases higher than those for mainstream groups. At the same time, non-planners nominated much higher levels of financial and psychosocial constraints than their planning counterparts.

The fifth objective was to identify the factors that constrain the ability to build ‘self-protection’ resources for later life and to determine how this varies for subgroups of baby boomers.

10.2.6 Constraints to Self-protection

This study has provided new insights into the factors that constrain baby boomers’ ability to develop a sound self-protection portfolio with respect to socialising, adopting positive lifestyles and exercising. Although Chapter 5 found that most baby boomers had difficulty translating their beliefs about healthy lifestyles into action, Chapters 6 and 7 showed that at-risk groups experienced more constraints than mainstream groups. For mainstream groups time was a major constraint in all three domains. By contrast, at-risk groups were generally more likely to cite financial constraints, such as lack of money or access to facilities. This highlights the effect of social location on the capacity to build a strong self-protection portfolio. The time constraints faced by the mainstream are likely to arise from the attempt to maintain traditional social norms, such as a family and a demanding work schedule, while at the same time accommodating new social norms such as women working and the need to constantly re-educate and retrain to remain competitive in a flexible work environment. Although mainstream groups generally had more resources, their commitment to maintaining
a lifestyle that conforms to socially approved norms, and delivers tangible material benefits, limits their capacity to adhere to the strictures of a successful ageing paradigm. By contrast, the financial constraints that are likely to be confronted by at-risk groups reflect a mixture of cumulative disadvantage, and the consequences of less successfully negotiating the challenges arising from the transformation of traditional everyday institutions, such as marriage and the labour market. Although for several at-risk groups this results in more time, it also gives rise to varying degrees of social exclusion signified by greater financial stress, the fracturing of relationships and reduced social integration. There were, however, few significant differences between at-risk and mainstream groups for constraints that are less structurally influenced, such as lack of self discipline, motivation, enjoyment and lack of interest, suggesting that these are more linked to personality than to social location or mental health. However, in all of the domains examined, at-risk groups were more likely to experience psychosocial constraints such as being uncomfortable in social situations, lack of company, and stress.

Although time constraints were primarily an issue for the mainstream they figured just as highly and, in some instances, more highly for non-planners and the depressed. This is partly explained by age and gender composition, with females and members of the 1956-65 cohort constituting a greater proportion of these subgroups. These characteristics increase the likelihood of multiple family and work commitments and hence reduced time. However, while the majority of non-planners were full-time employed and on an income of more than $40,000, higher proportions of the depressed group were on a low income and in precarious employment categories, with just over a quarter on a government pension. The depressed group also included more females – a factor that is likely to contribute to the higher proportion in precarious employment categories. These factors provide a structural dimension to the much higher level of constraints experienced by the depressed, who were both time and resource poor compared to non-planners who were on higher incomes.

The sixth objective was to assess the extent to which current policy frameworks related to ageing will adequately complement the resources baby boomers are likely to have.
10.2.7 Health, Housing and the Retirement Income System

Based on the understanding that the capacity to maintain health and wellbeing in later life is influenced by government policy as well as individual resources, Chapters 6, 8 and 9 examined the extent to which current policy frameworks for health, housing and retirement income are likely to adequately complement the individual resources baby boomers bring to later life. The provision of public protection is complex as individuals enter later life with different mixes of personal resources, hence the adequacy of public provision in Australia varies according to the individual circumstances of retirees. In addition, inadequate public protection in one area, such as housing, may impact on the effectiveness of another area, such as income provided through the Pension. This means that the adequacy of public protection is highly dependent on the capacity within each policy area and the extent to which all relevant areas are effectively coordinated.

Chapter 9 found that Australia’s three pillar retirement income system is considered to be well suited to the contemporary context and, once it matures, will see a substantial increase in retirement income for the majority. However, the relatively recent introduction of the SG means that the benefits to baby boomers will be considerably less than for subsequent cohorts. Equally, while the occupation-based structure of the SG works well for those in a stable marriage with continuous employment, it is less effective for those who experience divorce and basically excludes those with poor workforce attachment. Technically, the Age Pension should mean that those with low or no superannuation should not be more disadvantaged than current and previous generations of older people; however, they will be effectively excluded from the improved retirement living standards that the three pillar system facilitates for those who have continuous full-time employment. Hence, one impact of the three pillar system may be to increase income disparities within the older population, although this is more likely to be the case for subsequent cohorts than for baby boomers, many of whom will have low levels of superannuation.

Chapter 9 showed that there will continue to be substantial reliance on the Age Pension even after the SG has matured. This means that the question of its adequacy will continue to be a matter for debate both from an ideological perspective as to the type of living standard it
should provide and from a practical perspective with regard to its ability to meet the needs of recipients with diverse characteristics. Current Age Pension rates are oriented to the majority who are assumed to be married, to own their own house and to be in good health. Hence for those without these characteristics the adequacy of the Pension can only be construed with reference to the adequacy of other public protection mechanisms such as health and housing provision.

Chapter 8 drew attention to how the retraction of the welfare state has contributed to the erosion of public protection in the housing sector. This is reflected in a reduction of funding for public housing, a reliance on Commonwealth Rental Assistance to support those on low incomes and the shifting of responsibility for older people’s housing to the private and community sectors. This has occurred within an environment characterised by escalating rents with which Rent Assistance has failed to keep pace. The erosion of public protection in this sector has multiple impacts on the current generation of older people and, in the absence of significant change, this is likely to intensify as baby boomers enter the older age groups. This is partly because of the large size of this cohort, but also relates to the flow-on effects of social change, and structural adjustments to the labour market and the economy. These changes mean that baby boomers have lower rates of outright home ownership, a higher proportion in private rentals, and are more likely to live alone than the previous generation. The lack of secure and appropriate housing means that the Pension will not be adequate for many baby boomers who rent privately, with consequent effects on their health, wellbeing and capacity to remain engaged. The current policy environment does little to alleviate this situation, for although the NAHA seeks to adopt a more coordinated approach to housing policy, its failure to recognise older people as a specific housing policy group means that it is not well situated to manage the projected growth in the proportion of older renters, or to adequately meet the complex housing needs of older people. The devolution of responsibility for older people’s housing to the community and private sectors, has not been accompanied by the development of a comparable policy framework to ensure that the extent, location and type of housing provided will meet the burgeoning and different needs of the future older population. Consequently, it is not surprising to find that baby boomers who expressed a desire for some form of congregate living had little confidence in their ability to achieve the ir preferred
housing goal. Results from Chapter 8 suggest that those with few financial resources and/or social support are likely to be the most affected by the failure to ensure an adequate supply of appropriate congregate housing, with this particularly affecting single women, those who are childless and those who are divorced or separated.

Chapter 6 examined the capacity of the public health system to adequately meet the needs of baby boomers as they age. Although universal coverage guarantees treatment and care for acute conditions and injuries, there are considerable gaps in terms of prevention, and for conditions that are not deemed acute. Waiting lists for the type of surgical interventions frequently required by older people are unacceptably long; access to allied health practitioners is tightly targeted to those with significant problems; public dental care is in crisis; and assistance to purchase costly hearing aids is not extended to seniors with a health care card.

Although the PHI industry is regarded as a mechanism for meeting these gaps, the extent to which this is achieved both efficiently and equitably is hotly contested. In addition, despite the higher rebates offered to older people, PHI has been shown to decline in older age groups, with this being linked to changes associated with ageing such as lower incomes and becoming single.

The seventh objective was to identify the implications of the findings for policy, future research and theory.

10.3 Policy Implications

Current policy frameworks developed in response to structural ageing frequently consider the macro level impact that baby boomers will have as they transition into later life (Productivity Commission 2005; DOHA 2010b; Productivity Commission 2010; Treasury 2010a), but pay less attention to subgroup differences within the cohort. Future policies related to ageing must be strategically targeted and reflect the needs of an older population that has more diverse family structures, household formations, marital status, and labour force attachment than in the past. This diversity has implications for service design and delivery, for the provision of opportunities for active engagement, and for the location and type of housing that is made
available. Equally, the increased emphasis placed on self responsibility in both financial and non-financial domains implies a need for policies that assist individuals to take on this responsibility. The use of a life course approach to policy is essential if future generations are to have the self-insurance and self-protection resources required for later life. Baby boomers, who have spent much of their life under a different social contract, and who are the first generation to experience the fragmentation and uncertainty associated with the transformation of everyday institutions, will need substantial assistance. The amount and type of assistance needed will vary according to the extent to which they have been successful in negotiating the challenges posed by a rapidly changing society. Government policy aimed at developing interventions to improve health, facilitate continued engagement, and encourage a planning orientation in the baby boomer cohort will need to take into account the social location of target groups and the impact this has on their capacity to initiate and maintain positive changes to lifestyle.

10.3.1 Planning for Later Life

Although planning for later life is primarily an individual activity the propensity to plan can be influenced by government policy. Consistent with previous research (Lusardi and Mitchell 2007a), Chapter 5 found a clear socio-economic divide in the extent to which baby boomers plan for later life. This indicates a need for policies to minimise the effect that structural factors have on the ability and propensity to plan. Firstly, there is a role for government to facilitate the structural conditions that make planning a feasible activity. Traditional modes of financial planning are premised on a structured sequential and predictable life course within a stable employment context. However, for an increasing proportion of the population these conditions no longer apply, and policy mechanisms are needed to assist individuals to manage the more contingent nature of modern life if they are to have the confidence and resources with which to plan. There is a pressing need to develop an integrated structure for career and continuing education services that better fit with contemporary institutional arrangements and the complexity and unpredictability of modern labour force participation. This means moving ‘… the focus from corporate career development to individual workers managing their own careers’ (Moen 1998:45-46). Although life coaches and organisations such as WorkLife
International aim to meet this need, the embedding of this approach at the public institutional level, through making the monitoring of career resources an integral and routine part of working life, would reduce the risk of employment marginalisation and provide a framework that was more conducive to planning in the contemporary context.

Secondly, the high proportion of baby boomers who do not plan, and the low level of savings common in the baby boomer cohort, suggest that government policies to increase financial literacy and planning could be more effective. Although the ‘Understanding Money’ and ‘FIDO’ websites run by the Australian Securities and Investment Commission (ASIC) provide extensive financial information, neither website includes a list of providers offering courses on financial planning and literacy. Evidence suggests that more intensive assistance through courses such as MoneyMinded and SaverPlus are particularly effective for low income earners and deliver more benefits than websites or one off seminars (The Australian Government Office for Women 2007). There is a need for policy to incorporate a life course perspective in the provision of planning and financial literacy education. This means expanding it beyond the secondary sector to provide comprehensive opportunities for adult learning, targeting specific groups and transition periods such as career entry, beginning a family, after divorce and prior to retirement. Equally, the changing context for retirement points to a need to incorporate a module on non-financial planning in all retirement courses. There is a need for government to work in partnership with community groups and the private sector and to ensure that adequate funding is available to facilitate the delivery of comprehensive courses by the community sector (Council of the Aged 2004). Information about courses needs to be widely disseminated, but also focused on particular target groups and to community service providers who assist vulnerable groups (The Australian Government Office for Women 2007). In the baby boomer cohort, key target groups include low income earners, singles, the 1956-65 cohort, migrants from non-English speaking backgrounds and women.

Thirdly, there is a role for policy to change cultural attitudes towards planning through carefully thought-out awareness programmes. These programmes could include media advertisements and should emphasise that planning can influence financial outcomes. These programmes could include media advertisements and should emphasise that planning can influence financial outcomes.
regardless of socio-economic status. However, as Chapter 5 showed, female baby boomers, and those in the younger cohort, are less likely to consider retirement planning as relevant, hence it will be important to focus on planning generally as well as on retirement planning.

10.3.2 Health

Findings from Chapter 6 suggest a number of policy implications. There is a need for health programmes that facilitate early diagnosis and more effective self-management strategies, and for administrative improvements such as the provision for computer linkage of patient information. Equally, there is a need to focus on prevention through the fostering of healthier environments and providing better and more efficient health services and health promotion programmes. Obesity should continue to be a high priority due to its strong association with a range of chronic conditions. Recent government initiatives (Chapter 6), may achieve some of these aims and, if implemented effectively, have the potential to improve individual lives and to reduce health expenditure in the long term.

Chapter 6 identified a number of areas and subgroups that require a policy focus. Low income and retired baby boomers are key target groups in terms of health beliefs as they were the least likely to consider lifestyle or exercise as important for health. Although physical activity needs to be increased across the cohort, here is a need to target women as their physical activity levels are lower than men’s, with this contributing to higher rates of disability and arthritis in later life. Programmes to encourage exercise in at-risk groups should consider incorporating a social element and focus on the psychosocial as well as the physical benefits of exercise as these elements were clearly important to these groups. For mainstream groups it will be important to focus on interventions that consider the time constraints posed by poor work-life balance. Programmes to integrate physical activity into the workplace and/or strategies that facilitate exercise as part of the journey to work may improve physical activity in this group. It will be important to continue and improve programmes such as the ‘Well Person’s Health Check’ and to ensure effective dissemination of the availability of this programme.
In addition to the strong focus on prevention enunciated in the National Preventative Health Strategy it will also be important to improve chronic disease management and to focus on secondary prevention in the 1946-55 cohort as they have a higher prevalence of chronic conditions. The high prevalence of arthritis in the 1946-55 cohort and its significant association with being female or on a government pension signifies a need to ensure the availability of affordable programmes to manage this condition. Equally important is the effective dissemination of information about such programmes, for instance, the Arthritis Australia website does not list providers of programmes such as aqua therapy, which may be beneficial to arthritis sufferers. If similar levels of prevalence are to be avoided for the 1956-65 cohort it will be important to raise awareness of the role exercise in reducing the risk of arthritis.

Mental health has been a major political football during and since the recent election, and is significantly underfunded (ABC 2010b, 2010a; Herbert 2010; McGorry 2010). The high prevalence of mental health conditions in the baby boomer cohort signifies a need to target this cohort in mental health awareness campaigns. As contextual factors, such as work and relationships, have been identified as having a greater influence on mental health in midlife (Chapter 6) it will be important for policies related to mental health to take this into account. Specific target groups include those on a low income, the unemployed, individuals in the ‘student/other’ category and migrants. Programmes targeting those with depression should adopt a cross-sectoral approach in order to address external factors influencing depression, such as poor housing quality and difficulties related to labour market participation.

The current structure of support for the private health sector and the extent to which it is effective in reducing pressure on the public health system should be a matter for serious policy consideration. As noted by Scott (2009:452), the National Health and Hospitals Reform Commission did not consider whether ‘the $4 billion per year subsidization of private health insurance, … would be better spent directly on hospitals, …’. Equally, Boxall (2010:530) has argued that there is a fundamental ‘… lack of clarity about the role of private health insurance in the context of a compulsory, tax financed system …’, with this having limited the success of past reforms and possibly threatening the effectiveness of the recent national health reform.
programme initiated by the Rudd Labour Government. The current framework for encouraging PHI can result in the redirection of public funds to the private system without a corresponding reduction of the load on public hospitals. This is because it allows individuals who take out nominal cover (as a means of avoiding the Medicare surcharge) to continue to use the public system. The incentive to do this could be reduced by means testing the rebate. This would make more funds available to the public system, both through increasing revenue obtained through the surcharge and savings to government from reduced costs associated with the health rebate; net savings from means testing of the rebate have been estimated at around $2 billion over five years (Treasury 2010a:53-54). In addition, the Life Time Health Cover policy disadvantages baby boomers who have had interrupted employment patterns. Single parents are the most likely to be affected due to child-raising responsibilities, which may have precluded full-time employment for a number of years, thus making PHI unaffordable. Life Time Health Cover could be made more equitable by discounting the penalty for years where attachment to the workforce was marginal or interrupted. This might provide an added incentive for baby boomers in this group to take out PHI.

10.3.3 Active Engagement through Paid Work

Although a substantial proportion of baby boomers intend to work part-time in retirement, the proportion expecting work to be a source of income in retirement is small. Substantial policy action will be required to encourage extended labour force participation in older age groups. There is a need to develop a policy framework that is responsive to the particular needs and life stage of older workers, and which also tackles ageist attitudes and raises awareness of the benefits of employing older workers. This will require ongoing commitment from all levels of government as well as collaboration with employers and peak employer bodies. In addition, within this framework there is a need to be responsive to the varying needs and motivations of older workers. Those who can afford to retire are likely to require incentives to remain at work while those with few financial resources may need additional support to remain in the workforce. Factors that have been identified in the literature as influencing the former, include legislation and regulations governing superannuation, such as the 2007 superannuation reforms that removed tax on end-superannuation benefits (Section 9.2.1, Chapter 9), and
income test requirements for the Age Pension, such as the Work Bonus introduced in 2009 (Appendix 6.1). However, as Chapter 7 showed, flexible work conditions in enjoyable stress-free environments, with the opportunity to mentor junior workers are also key factors influencing this group’s participation (Knox 2003; Jackson et al. 2006b; Quine et al. 2006; Jackson and Walter 2007a). Hence, policy for this group is likely to imply collaboration with employers rather than direct interventions.

There is ample scope for government policy to facilitate employment for those who need to work longer out of financial necessity, but who may have low skill levels and/or chronic health problems. Areas that have been identified (Hugo et al. 2009:253) include:

- better access to rehabilitation programmes for those on disability benefits
- broadening eligibility requirements for the Workplace Modifications Scheme
- opening up job-search assistance to older jobseekers who don’t receive assistance from either Centrelink or Job Network providers
- improving arrangements for the Recognition of Prior Learning (RPL)
- the provision of training that is relevant to the needs of older workers
- providing training opportunities throughout worker’s lives
- addressing workplace design and health promotion to minimise and address functional decline of workers.

In general, there needs to be greater consideration given to both physical and psychosocial aspects of the work environment and the effect these have on older people. Both have been shown to influence physical and mental health, and a stronger focus on the quality of the work environment could prevent or address both functional and health declines and hence facilitate the potential for extended participation (Jensen et al. 2002; Christensen et al. 2008; Warren et al. 2008; Hugo et al. 2009).
10.3.4 The Impact of Social Change on Informal Care

Chapter 4 showed that the capacity of the informal care sector is likely to be reduced by factors associated with social change and by policies designed to extend labour force participation. This will place increased pressure on aged care services and, given the different context in which caring will occur, signifies a need for advance planning and consultation to determine the most appropriate ways to provide care, the extent of additional services required and the needs of future informal carers. Key areas requiring a policy focus include: the promotion of a shared approach to caring both with family and personal networks and between carers and service providers; the introduction of ‘individualised funding models’; improving integration of and access to services; the provision of support to assist carers to combine multiple roles, to re-enter the workforce once caring ceases and to remain engaged with the larger community; collaboration with employers to provide work places that consider the needs of carers; and consideration of supportive housing models that facilitate service provision and enable older people to support each other (AIHW 2009; Jones et al. 2010).

10.3.5 Housing

Baby boomers’ progression through the age structure will have a range of policy implications for housing, some of which relate directly to older people’s housing and others which are intertwined with the needs of subsequent generations. One implication of ageing-in-place policies is the increased proportion of family sized homes that will be occupied by singles and couples, with Hugo (2007a:10) noting that: ‘As housing affordability increases in significance for young Australian families the issue of the family housing being freed up for families will be increasingly canvassed’. However, as Hugo (2007a:10) also notes, ‘… such a strategy needs to be predicated on providing more appropriate housing for the older occupants’. The need to manage these demographic changes effectively, together with the complex nature of older people’s housing and the projected increase in older renters over the next few decades, highlights the need for a national strategy on housing for older people. This would facilitate the maintenance and enhancement of existing stock; the development of new stock reflective of the different needs of baby boomers; and development of retirement villages and assisted living facilities in locations where they are required. Although ageing-in-place will
continue to be the most popular option, the movement of baby boomers into the 75+ age group will ‘… see a quantum increase in the demand for places in aged care homes and hostels’ (Hugo 2007a:10).

The reduction in informal care identified in Section 10.3.4 suggests that supportive housing models, such as service integrated housing, unassisted congregate housing, and cohousing, will have an increasing role to play in supplementing or replacing care sourced through family networks and this sector will require increased resources if future need is to be met. Current inadequacies in this sector suggest a need for government involvement to ensure that demand for such accommodation is adequately and appropriately met, particularly for low income earners and singles, who are likely to require more support. Supportive housing developments for these groups could be encouraged as part of the Social Housing Initiative, the NPA on social housing, the NRAS and/or similar future initiatives (Jones et al. 2010:131). Jones et al. (2010:131-132) have suggested a range of specific options and approaches that could be considered by policy makers including:

- redevelopment of outdated ILUs
- redevelopment of residential aged care homes (RACHs) that are no longer used for this purpose
- support for small RACHs, which are experiencing difficulties, to switch from the provision of residential care to become part of a service integrated housing programme
- the conversion of public housing complexes, that consist primarily of older tenants, into service integrated housing.

Although cohousing appears to be relevant to a relatively small population group, interest in this sector may increase in the future, particularly as members of the 1956-65 cohort are more attracted to this option. Cohousing offers a sense of meaningful community, greater autonomy than other forms of congregate housing, and mutual support, thus reducing the need for formal services. Achieving this housing type is perceived as being constrained by legal structures and planning regulations; therefore, there is a potential role for policy to remove or minimise these barriers. Equally, it has been noted that groups wishing to develop such housing ‘… benefit
from formal recognition of their status and that this assists in their continuation’ (The Ontario Coalition - unpublished material cited in Faulkner, et al. 2006:30).

10.3.6 Retirement Income

Section 10.2.7 drew attention to the potential for increased income disparities in the older population as the S G matures. Kelly (2009b:27) has noted that one policy initiative to alleviate the limited access of individuals with marginal or no attachment to the workforce is for the government to make a nine per cent contribution on behalf of those on government benefits. This would not include contributions to individuals on payments such as the Age Pension, family benefits or rent assistance and would cost the government an estimated $2.2 billion in 2008-09. However, this cost could be considerably reduced if contributions were made only to those receiving a benefit of more than $450 per month. Such an initiative could result in a superannuation balance of around $75,000 for a single disability support recipient who received contributions over a 30-year-period (Kelly 2009b:27). This would alleviate the cumulative disadvantage that such individuals would otherwise face in a retirement income system that increasingly presupposes some supplementation of the pension by superannuation. In addition, for those with intermittent participation, it would ensure that superannuation contributions, even if small, were continuous and would thus harness the advantages provided by compounding interest.

10.4 Implications for Further Research

The thesis has contributed to a deeper understanding of how social change has influenced baby boomers’ lives and has identified diversity within the cohort across a wide range of domains relevant to health and wellbeing in later life. However, the breadth of this approach has some limitations which offer opportunities for future research.
10.4.1 Health

This study has identified key differences in the factors that constrain exercise for at-risk and mainstream groups. Future research could build on these findings to develop physical activity programmes that meet these different needs. For at-risk groups, there is scope for research to explore the availability, affordability and appropriateness of current community programmes; to identify ways of incorporating social elements into physical activity models; and to assess the extent to which poor access to facilities is related to cost or to the availability of facilities in the local area. For mainstream baby boomers it would be useful to focus future research efforts on developing work-based programmes that can counter the time constraint. Although there is a growing body of literature on workplace interventions, there continues to be a need for rigorous well-designed studies that consider a wide range of factors that are not always taken into account, such as the occupational status of participants, costs of the intervention, and meaningful representations of weight change (Anderson et al. 2009). In general, there is scope to further develop the evidence base in terms of the effectiveness of existing workplace interventions, the trialling of new interventions, and the impact of organisational size and type on employer attitudes to implementing these interventions (Dugdill et al. 2008).

The high level of depression and psychological disturbance in the baby boomer cohort suggests a need for further research to better understand how changes to the social context such as later childbirth, restructuring of the labour force, increased female labour participation, longer life expectancies and increased geographical dispersion of families might intensify exposure to stress in mid-life and the extent to which such increased exposure may lead to psychological distress and mental illness. Equally, the strong association of depression with marginal employment categories indicates a need for future research to explore the direction of this association. Generally, there is a need for research in the occupational health sector to place greater emphasis on health promotion and on identifying factors relating to the psychosocial work environment that might reduce the desire to remain in the workforce.
10.4.2 Housing

Research opportunities exist to expand the evidence base regarding the provision of affordable purpose-built housing for this cohort. This includes identifying the volume and type of purpose-built housing required, and the locations in which demand is likely to be greatest. With respect to the latter, more detailed research is needed regarding the movement intentions of baby boomers in order to determine both housing and service provision requirements. Research is also needed to assess the extent to which existing congregate housing and ex-RACHs can be fruitfully reconstituted as service-integrated housing, through new forms of management (as identified by Jones above, Section 10.3.5) and the ways in which this can be accomplished. Further research into the viability of cohousing is also warranted. Results from Chapter 8 suggest that interest in this type of housing may be difficult to detect because it is generally perceived as being difficult to achieve. Cohousing has been successfully implemented in a number of overseas countries (Bamford 2005) and, because it offers greater autonomy, as well as involvement in how the community is constituted and organised, it meets quite different needs from the traditional retirement village. Qualitative research based on a substantial sample would provide valuable information about the barriers to such housing and the extent to which it was truly perceived as a viable option.

10.4.3 Future Trends in Cohabitation

Chapter 4 showed that the prevalence of late life cohabitation is likely to increase as baby boomers transition into older age groups and, given the dearth of Australian research on late life cohabiters, it is important to identify the factors influencing this decision, and the effects of cohabitation on wellbeing. Areas for exploration include: the socio-economic characteristics of cohabiters; the extent to which later life cohabitation is the result of newly formed or pre-existing long term relationships; and the impact cohabitation has on health, wellbeing and financial security compared to other living arrangements and/or relationships. In addition, it would be useful to explore the extent to which decisions about cohabitation are influenced by social security regulations and legal and personal considerations relating to financial resources, children and inheritances.
10.4.4 Social Interaction and Personally Meaningful Engagement

Chapter 7 found that a major barrier to social interaction was the difficulty a high proportion of baby boomers experienced in meeting like-minded people, with this being experienced equally by at-risk and mainstream groups. This suggests a structural lag between the need for non-traditional types of social interaction and relationships, and the evolution of structures to effectively meet these needs. By contrast, subsequent generations appear to be developing new mechanisms for social interaction based on web technologies such as social networking sites. Although there is some small scale qualitative research on how older adults use such technology (Lehtinen et al. 2009; Sum et al. 2009), it tends to be focused on retirees and hence is not really representative of the baby boomer cohort. Although the digital divide faced by baby boomers is unlikely to be of the magnitude experienced by their predecessors, there appears to be little research on whether they keep up with emerging web-based technologies or whether their use remains at a certain basic level. This suggests a strong need for further research in relation to: barriers to using more sophisticated communication web technologies; the extent to which baby boomers use web-based technologies for meeting new people and sustaining existing networks; their capacity and interest in utilising such mechanisms; how use differs by age, gender, SES and other subgroups within the cohort; and the potential benefits for social life both now and in the future. In addition, at-risk groups are likely to face multiple barriers to uptake of web-based technologies, but may also gain greater proportional benefits from their use, hence qualitative research trialling the use of such technologies, and their impact over time, would be worthwhile.

10.5 Limitations

10.5.1 Subgroups not Included in the Study

Although this study comprises a substantial population sample, there has inevitably been a limit on the number of subgroups that could realistically be examined and there have also been limitations due to the use of an urban-based sample. These limitations of further
opportunities for further research. First, it would be informative to examine the characteristics of baby boomers with optimal health, defined as those with no risk factors and no chronic conditions, and to explore on a qualitative level the individual and structural factors associated with this status. Second, ethnic, indigenous and rural groups were not included as a focus for study, however, each of these subgroups will face different or additional challenges to those identified in the subgroups in this thesis.

Although ethnic groups were not examined as a specific subgroup they were included in the broader analysis and a number of issues were identified for further exploration. Clearly, some ethnic groups will face challenges due to language and cultural differences and the increased likelihood of being separated from family networks. However, the need for further research on this group is also suggested by the fact that lower proportions of non-English speaking migrants exhibited planning behaviour, substantially lower proportions expected to be comfortably off in retirement and fewer had private health insurance. As Ozanne (2009:144) notes, this is likely to be influenced by ‘... their earlier history of low paid and unskilled jobs and greater likelihood of being retrenched in midlife from the restructuring manufacturing sector, …’. As noted in Chapter 6, older migrants from both English and non-English speaking backgrounds were also more likely to experience psychological disturbance. There is, therefore, a need to further explore how social change might have influenced patterns of family support, the extent to which dislocation from overseas family members affects wellbeing and the degree to which there is an emerging need to support these groups in how they plan for later life.

10.5.2 The Problem of Small Cell Sizes

A limitation of this thesis was the comparatively small cell sizes in the categories of some variables. For instance, in the TFU Follow Up 2 (CATI) Survey, there were only 27 in the unemployed, 44 in the ‘unable to work’ and 74 in the casual categories of the employment variable. Although Fishers Exact Test has been used to retain representativeness when analysing these groups, the small numbers need to be taken into account. These groups are more likely to be at high risk for poor outcomes in later life and further analysis to determine how they differ with respect to work, volunteering, social interaction, housing and health
would be useful, particularly given the current policy emphasis on extending labour force participation. A similar problem was encountered with the marital status variable with only 26 in the widowed and 66 in the never married categories. Although comparisons of couples with singles has yielded useful information, the issues facing the divorced/separated, widowed and never married are likely to differ, hence further exploration of these subgroups is also indicated.

10.6 Implications for Theory and Data Collection

10.6.1 Analysing Social Change

Although this thesis has identified a number of ways in which social and demographic change will influence how baby boomers will age, this component of the study has been limited by the availability of accessible and comparable data on a range of variables. In particular, it has been difficult to accurately compare household and family data due to changes in the categories included in these variables. This has implications for future collection of Census data and implies a need to devise an effective methodology for collecting data around families and households so they can be accurately compared across time. Comparability is also a consideration for individual researchers who are collecting their own cohort data and implies a need to consider where new projects are positioned in relation to past projects that may provide a source for future comparison. For instance, future studies on how baby boomers age would benefit from collecting data that can be directly compared with that collected for current or recent longitudinal studies such as the Australian Longitudinal Study of Ageing (ALSA) or the Berlin Aging Study (BASE). This would make it possible to distinguish between age, cohort and period effects and would also facilitate the ability to test and develop theory on social change.

10.6.2 Innovation in Data Use and Collection

Future research on baby boomers would benefit from maximising the use of existing secondary datasets such as the: ASRAM study; Household Income and Labour Dynamics in
Australia (HILDA) Survey; NWAHS; 45 and Up Study; Australian Longitudinal Women’s Health Study; and the Negotiating the Life Course Study. Using a wide range of existing datasets would make it possible to provide multiple perspectives on the baby boomer cohort and the issues they face as they transition into later life. Equally, there is scope to develop a ‘mini-census’ on baby boomers using confidentialised unit record file data from the Census of Population and Housing.

Although the last two Census collections have included a question on Internet use, the rapid spread of this technology (an increase of two-thirds between 2001 and 2006) (Hugo, 2007b), suggests that it would be useful to include additional questions on the frequency and purpose for which it is used. Hugo’s (2007b) analysis of Internet access found evidence of a digital divide, in relation to both age and SES. However, in the absence of additional data it is impossible to tell the full nature and extent of the digital divide, particularly in relation to age. Although an age-related digital divide between use and non-use can clearly be established through the current Census question, further data is needed to determine the extent to which there is also an age-related digital divide in the proficiency with which this medium is used. Baby boomers have not grown up with this technology and are likely to be less proficient than subsequent generations. This may affect their ability to fully utilise the Internet’s potential to provide a variety of supports in later life, and hence has implications for data collection, future research and policy.

There is scope to build on the findings of this thesis through the collection of additional data in future waves of the NWAHS. Future data collection could include questions on the reasons for retirement, factors influencing labour force participation and issues affecting work-life balance. For example, there is an opportunity to identify the impact of the GFC on labour participation and income expectations, as questions collected for this thesis were asked prior to the GFC. In addition, the continuance of the NWAHS provides an opportunity to collect both quantitative and qualitative data about the workplace from the perspective of both employees and employers. The combination of such data with the existing biomedical data would provide an excellent opportunity to explore links between health and work. It would also be
valuable to collect data on attitudes to, and use of, online social networking and online dating, particularly as research on baby boomers’ use of such technology appears to be quite limited.

10.6.3 Implications for Theory

As identified in Section 10.2.1, findings from Chapter 4 support concepts fundamental to reflexive modernity theory, such as individualisation and the transformation of traditional institutions. Higher rates of divorce, more diverse family structures and living arrangements, the increasingly contingent nature of the labour force and increased secularism all support the notion that traditional institutions, and the meanings they hold for individuals, have been in some measure transformed. Equally, increased individualisation is reflected in the diversity of the retirement transition, the popularity of informal socialising over socialising through community groups, the rise in popularity of less traditional Christian denominations, and the emphasis on individual responsibility inherent in policy frameworks for health, housing and retirement income.

Despite these significant shifts, a large proportion of baby boomers aspire to combine their increased choice and freedom with traditional expectations of family life and career. This suggests that the meaning of family still has saliency despite being under siege from a variety of other individualisation processes. Family continues to be important in baby boomers’ lives both as a source of support and as the primary mode of social interaction. This could be interpreted as oppositional to the trend anticipated in reflexive modernity and individualisation theory in which there is an expectation that greater choice in relationships will contribute to a reduced emphasis on family and an increase in non-kin based networks or ‘families of choice’. Pahl and Pevalin (2005:434), for instance, refute the idea that ‘families of choice’ are replacing ‘families of fate’ and point to a ‘... much more subtle interweaving of “given” and “chosen” relationships...’ that cannot be explained through processes of individualisation or reflexive modernity but, in fact, have historical precedent. However, as noted in Chapter 4, historical precedent for a particular social form does not automatically imply that the processes contributing to the form are identical. In addition, the difficulty baby boomers have in meeting like-minded people could provide one explanation for the continuing importance of family. If future generations develop new and more effective platforms from
which to meet like-minded friends then the emphasis on family as a psychological and social resource may diminish in the future. However, regardless of the arguments that can be put forward to support the continued saliency of family, the empirical evidence clearly shows that contemporary conditions place new strains on this institution and that it is much more vulnerable to breakdown. Whereas in the past this may have been due to early mortality, under contemporary conditions family stability is influenced by female autonomy, dual career households, precarious labour market conditions, higher expectations of relationships and greater mobility. As Giddens (1990) notes, the coexistence of the traditional with the non-traditional does not negate the real and significant contrasts between reflexive and early modernity.

In testing the validity of reflexive modernity it is also important to remember that baby boomers are a transitional generation, hence changes evident in this cohort reflect the beginning rather than the end of individualisation and reflexive modernity processes. This implies a need to continue to test the theories by measuring their ability to reflect the experiences of subsequent generations. There is also scope for qualitative research to explore how adherence to traditional attitudes varies by education, background, personal experience and peer group membership. Equally, while this thesis has sought to explore the extent to which baby boomers reflexively plan, the use of a quantitative approach has significant limitations as it cannot achieve an understanding of the cognitive strategies individuals employ to plan a future based on a present in which uncertainty plays an increasingly dominant role. There is, therefore, substantial scope for using a more nuanced qualitative approach to explore how individuals conceptualise their future selves in the more contingent world of reflexive modernity and to identify the strategies used by those who are more successful in negotiating its challenges. Additional qualitative research would also better inform quantitative study hypotheses.
10.7 Conclusion

This chapter has drawn together the findings and arguments of the thesis. It has identified the main argument of the thesis as being the need to consider how social and demographic change will fundamentally alter the context in which ageing occurs and the implications these changes have for the future ageing of the population and for the way in which individuals prepare for later life. The argument has been focused through an analysis of the baby boomer cohort because its unusually large size will have a significant impact on the services required and because its status as a transitional generation, shaped by significant and rapid change, means that the expectations and needs of this cohort will be distinct from those of previous generations. The thesis further argued that if future policies associated with ageing are to adequately address the needs of diverse groups it was necessary to first challenge stereotypical representations of baby boomers by identifying differences within the cohort.

The study has shown that the scope and magnitude of the changes experienced by baby boomers is considerable and that the increased fragility of marital relationships, the loss of certainty in employment, and the changing roles of women have flow-on effects in a range of related areas such as social interaction, the capacity to prepare for later life and financial security. That institutional arrangements to assist individuals to cope with these changes frequently lag behind need, is evident from the marginalisation of older workers, the low level of preparedness for later life, the shortage of affordable housing, and the recency of health policy strategies that take a life course approach. A key finding of the thesis is that subgroups within the baby boomer cohort, which have been less successful at negotiating the challenges posed by reflexive modernity, will, in the absence of current action, become increasingly vulnerable as they age. This has two important implications for policy: firstly there is a need for strategies to assist these groups to improve their resources now, before they enter later life; and secondly it will be important to ensure that systems and structures are in place to meet their future needs. Finally, the findings of this thesis have implications for how the life course is managed in the future. Although it is too early to tell how subsequent generations will manage the more uncertain nature of modern life, the experience of baby boomers suggests that there is a role for government to facilitate conditions that make a
strategic approach to later life possible. This entails adopting a life course approach to policy and building in mechanisms, particularly in the domains of work and education, which assist individuals to respond effectively to rapidly changing environments. The government’s approach to managing structural ageing is through the three Ps, population, participation and productivity. It is perhaps time to add a fourth P, ‘preparation’, as the extent to which governments and individuals prepare for later life has a significant impact on the ability to manage the contingencies with which it is associated.
APPENDICES
APPENDIX 1
Overview of Literature on Baby Boomers
### Appendix 1.1: Review Based Literature on Baby Boomers

<table>
<thead>
<tr>
<th>Date</th>
<th>Author/Country</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>Davis (Aust)</td>
<td>Gangland: cultural elites and the new generationalism</td>
</tr>
<tr>
<td>1998</td>
<td>Cornman &amp; Kingson (US)</td>
<td>Trends, Issues, Perspectives and Values for the Aging of the Baby Boom Cohorts</td>
</tr>
<tr>
<td>1998</td>
<td>Morgan (US)</td>
<td>Facts and figures about the baby boom</td>
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<tr>
<td>1998</td>
<td>Adams &amp; Blieszner (US)</td>
<td>Baby boomer friendships</td>
</tr>
<tr>
<td>1998</td>
<td>Williamson (US)</td>
<td>Political activism and the aging of the baby boom</td>
</tr>
<tr>
<td>1998</td>
<td>Pillemer &amp; Suitor (US)</td>
<td>Baby boom families: Relations with aging parents’</td>
</tr>
<tr>
<td>1998</td>
<td>Moen (US)</td>
<td>Re-casting careers: changing reference groups, risks, and realities</td>
</tr>
<tr>
<td>1998</td>
<td>Longino (US)</td>
<td>Geographic mobility and the baby boom</td>
</tr>
<tr>
<td>1999</td>
<td>Dychtwald (US)</td>
<td>Age power: how the 21st century will be ruled by the new old.</td>
</tr>
<tr>
<td>2005-06</td>
<td>Moore (Aust)</td>
<td>Hippies, Yuppies and Grumpies: The dark history of the baby boom</td>
</tr>
<tr>
<td>2007</td>
<td>Islam (UK)</td>
<td>The great generational robbery: old and rich versus young and poor</td>
</tr>
<tr>
<td>2008</td>
<td>Phillipson, Leach, Money &amp; Biggs (UK)</td>
<td>Social and cultural constructions of ageing: the case of the baby boomers</td>
</tr>
<tr>
<td>2004</td>
<td>Fallon, Price, Hegney, Abbey, Neville, Oxlade, Soar (Aust)</td>
<td>Aged care in the future and baby boomers: shall the twain ever meet? - baby boomers and aged care</td>
</tr>
</tbody>
</table>

Source: Compiled by author
## Appendix 1.2: Empirical Studies on Baby Boomers

<table>
<thead>
<tr>
<th>Date</th>
<th>Author/Country</th>
<th>Topic</th>
<th>Method/Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>Slack-Smith &amp; Laverty Australia</td>
<td>Diversity and the baby boomers: findings of the Compass Consultation on Australia's Ageing Population</td>
<td>Quantitative and qualitative analysis. Non-random survey of Presidents of View Clubs (n=200), interviews and submissions from key informants. Focused on ageing rather than baby boomers.</td>
</tr>
<tr>
<td>2007</td>
<td>Roberts, Vanderburg, Leake, Prieto, United States (US)</td>
<td>Boomers leading change</td>
<td>Quantitative and qualitative analysis. Non-random stratified sample survey, telephone and in-person interviews, focus groups.</td>
</tr>
<tr>
<td>2000</td>
<td>Evandrou &amp; Falkingham, United Kingdom (UK)</td>
<td>Looking back to look forward: lessons from four birth cohorts for ageing in the 21st century</td>
<td>Quantitative analysis. Used a pseudo-cohort approach to analyse survey and vital registration data for two pre-war and two post-war cohorts.</td>
</tr>
<tr>
<td>2006</td>
<td>Warner-Smith, Everingham &amp; Ford Australia</td>
<td>Mid-age women’s experiences of work and expectations of retirement</td>
<td>Quantitative analysis using Australian Longitudinal Study of Women’s Health (ALSWH) data.</td>
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<tr>
<td>2006c</td>
<td>Jackson, Walter, Felmingham Australia</td>
<td>Will Australia's Baby Boomers change their retirement plans in line with Government wishes?</td>
<td>Quantitative analysis of data from the Australian Survey of Retirement Attitudes and Motivations (ASRAM).</td>
</tr>
<tr>
<td>2007c</td>
<td>Walter &amp; Jackson Australia</td>
<td>Baby boomer retirement transition preferences</td>
<td>Quantitative analysis of data from ASRAM.</td>
</tr>
<tr>
<td>2004</td>
<td>Kelly &amp; Harding Australia</td>
<td>Funding the retirement of the baby boomers</td>
<td>Quantitative analysis.</td>
</tr>
<tr>
<td>2006</td>
<td>Cobb-Clark &amp; Stillman</td>
<td>The retirement expectations of middle-aged individuals</td>
<td>Quantitative Analysis using data from the HILDA Survey.</td>
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<tr>
<td>2005</td>
<td>Putney &amp; Bengtson US</td>
<td>Family Relations in Changing Times: A Longitudinal Study of Five Cohorts of Women</td>
<td>Quantitative analysis using data from the Longitudinal Study of Generations (LSOG) and a cohort sequential design.</td>
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</tbody>
</table>
### Appendix 1.2: Empirical Studies on Baby Boomers (cont)

<table>
<thead>
<tr>
<th>Date</th>
<th>Author/Country</th>
<th>Topic</th>
<th>Method/Data Type</th>
</tr>
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<tbody>
<tr>
<td>2005</td>
<td>Leveille, Wee, Iezzoni. US</td>
<td>Trends in obesity and arthritis among baby boomers and their predecessors</td>
<td>Quantitative analysis using data from the US Bureau of the Census and four successive waves of data from the National Center for Health Statistics</td>
</tr>
<tr>
<td>2007</td>
<td>Lucke, Waters, Hockey, Spallek, Gibson, Byles, Dobson. Australia</td>
<td>Trends in women’s risk factors and chronic conditions: findings from the Australian longitudinal study on women’s health.</td>
<td>Quantitative analysis using longitudinal data from ALSWH.</td>
</tr>
<tr>
<td>2006</td>
<td>Bernard, Quine, &amp; Kendig. Australia</td>
<td>Understanding baby boomers' expectations and plans for their retirement: findings from a qualitative study</td>
<td>Qualitative analysis. Focus groups.</td>
</tr>
<tr>
<td>2006</td>
<td>Hamilton &amp; Hamilton Australia</td>
<td>Baby boomers and retirement: Dreams fears, and anxieties</td>
<td>Qualitative analysis of 8 focus groups. Quantitative Analysis – Newspoll survey random sample stratified by state and telephone area code (n=829)</td>
</tr>
<tr>
<td>2007</td>
<td>Hunter, Wang &amp; Worsely. Australia</td>
<td>Retirement planning and expectations of Australian baby boomers</td>
<td>Qualitative – focus groups and interviews. Small scale and not all respondents baby boomers.</td>
</tr>
<tr>
<td>1998</td>
<td>Simon-Rusinowitz, Wilson, Marks, Krach, Welch. US</td>
<td>Future work and retirement needs: Policy experts and baby boomers express their views</td>
<td>Qualitative analysis. In-depth interviews - policy experts, focus groups, researchers &amp; BBs aged 40-48</td>
</tr>
<tr>
<td>1996</td>
<td>Burns. Australia</td>
<td>Women as economic agents: mid-life women planning for successful ageing</td>
<td>Qualitative analysis. Small-scale</td>
</tr>
<tr>
<td>2001</td>
<td>Western Australian Government</td>
<td>‘BOOMNET’ – Capturing the baby boomer volunteers</td>
<td>Qualitative study. Interviews, focus group, creativity sessions.</td>
</tr>
<tr>
<td>2001</td>
<td>NSW Dept of Ageing, Disability and Home Care</td>
<td>Older people and volunteering</td>
<td>Qualitative analysis. Focus groups.</td>
</tr>
<tr>
<td>2008</td>
<td>Wang WC, Worsley A, Cunningham</td>
<td>Social ideological influences on reported food consumption and BMI</td>
<td>Qualitative analysis.</td>
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</table>

Source: Compiled by author
APPENDIX 2
Material Relating to Methodology
Appendix 2.1: Recoding of Census Data

Education

<table>
<thead>
<tr>
<th>Highest Year of School Completed</th>
<th>1981</th>
<th>2006</th>
<th>Re-coding for Comparison</th>
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</thead>
<tbody>
<tr>
<td>18-21 or older</td>
<td>Year 12</td>
<td>Year 12 or equivalent</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Year 11</td>
<td>Year 11</td>
<td></td>
</tr>
<tr>
<td>Up to 16 &amp; did not go to school</td>
<td>Year 10 or below &amp; did not go to school</td>
<td>Year 10 or below</td>
<td></td>
</tr>
<tr>
<td>Not stated</td>
<td>Not Stated</td>
<td>Not Stated</td>
<td></td>
</tr>
<tr>
<td>Still at primary or secondary</td>
<td>Overseas visitor</td>
<td>Excluded from analysis</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-School Qualification</th>
<th>1981 Categories</th>
<th>2006 Categories</th>
<th>Re-coding for Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher degree</td>
<td>Postgraduate Degree Level</td>
<td>Post Grad/Higher Degree</td>
<td></td>
</tr>
<tr>
<td>Graduate degree</td>
<td>Graduate Diploma and Graduate Certificate Level</td>
<td>Grad Dip/Cert</td>
<td></td>
</tr>
<tr>
<td>Degree</td>
<td>Bachelor Degree level</td>
<td>Bachelor Degree</td>
<td></td>
</tr>
<tr>
<td>Diploma</td>
<td>Advanced Diploma and Diploma Level</td>
<td>Diploma</td>
<td></td>
</tr>
<tr>
<td>Certificate-Trade</td>
<td>Certificate Level</td>
<td>Certificate Level</td>
<td></td>
</tr>
<tr>
<td>Certificate-Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No qualifications</td>
<td>Not applicable</td>
<td></td>
<td>No Qualifications/Not Applicable</td>
</tr>
<tr>
<td>Qualifications not stated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-certificate</td>
<td></td>
<td>Excluded (&lt;1%)</td>
<td></td>
</tr>
<tr>
<td>Inadequate description</td>
<td>Level of education inadequately described</td>
<td>Excluded (1981 &lt;1%; 2006&lt;2%)</td>
<td></td>
</tr>
<tr>
<td>Still at school</td>
<td></td>
<td>Excluded (&lt;1%)</td>
<td></td>
</tr>
<tr>
<td>Not stated</td>
<td>Level of education not stated</td>
<td>Excluded (1981&lt;8%; 2006&lt;10%)</td>
<td></td>
</tr>
<tr>
<td>Overseas visitor</td>
<td></td>
<td>Excluded</td>
<td></td>
</tr>
</tbody>
</table>

Recoding 1981 Religious Affiliation Variable

As there were more categories for religion in the 1981 variable these have been collapsed to accord with the 2006 categories. The primary issue for the classification of religious affiliation was that 2006 did not include a ‘not stated’ category. Consequently the 1981 ‘not stated’ category has been equated with the 2006 ‘Religious belief (n.f.d)’ but this category also includes ‘New Age (so described) etc and hence it is difficult to know the exact percentage of genuine ‘not stated’ responses for 2006.
### Religious Affiliation

<table>
<thead>
<tr>
<th>1981</th>
<th>2006</th>
<th>Re-coding for Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenian Apostolic</td>
<td>Other Christian</td>
<td>Other Christian</td>
</tr>
<tr>
<td>Brethren</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Churches of Christ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Congregational</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jehovah’s Witness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latter Day Saints-Mormon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methodist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salvation Army</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seventh Day Adventist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protestant Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christian NEI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Church of England</td>
<td>Anglican</td>
<td>Anglican</td>
</tr>
<tr>
<td>Baptist</td>
<td>Baptist</td>
<td>Baptist</td>
</tr>
<tr>
<td>Catholic – Roman</td>
<td>Catholic</td>
<td>Catholic</td>
</tr>
<tr>
<td>Catholic – Not Roman</td>
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<td></td>
</tr>
<tr>
<td>Lutheran</td>
<td>Lutheran</td>
<td>Lutheran</td>
</tr>
<tr>
<td>Orthodox</td>
<td>Greek Orthodox</td>
<td>Greek Orthodox</td>
</tr>
<tr>
<td>Presbyterian</td>
<td>Presbyterian</td>
<td>Presbyterian</td>
</tr>
<tr>
<td>Uniting Church</td>
<td>Uniting Church</td>
<td>Uniting Church</td>
</tr>
<tr>
<td>Pentecostal</td>
<td>Pentecostal</td>
<td>Pentecostal</td>
</tr>
<tr>
<td>Muslim</td>
<td>Islam</td>
<td>Islam</td>
</tr>
<tr>
<td>Buddhism</td>
<td>Buddhism</td>
<td>Buddhism</td>
</tr>
<tr>
<td>Hebrew</td>
<td>Other Religions</td>
<td>Other Religions</td>
</tr>
<tr>
<td>Non Christian NEI¹</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Religion, so described</td>
<td>No Religion</td>
<td>No Religion</td>
</tr>
<tr>
<td>Not Stated</td>
<td>Religious belief (n.f.d.),</td>
<td>Religion (nfd)/not stated</td>
</tr>
<tr>
<td>Inadequately described</td>
<td>Not defined, New Age (so</td>
<td></td>
</tr>
<tr>
<td></td>
<td>described)</td>
<td></td>
</tr>
</tbody>
</table>

¹NEI=not elsewhere included

### Family Type

The concept of family used in the 1981 Census is one based on blood or marriage relationships although in this Census a primary family could also consist of one person. A primary family unit could include the following:

- Head of household
- Spouse
- Unmarried children of any age
- Any child under age 16
Lone parents and other older generation relatives of direct line relationship to household head or spouse who are aged over 30, not presently married and without parents, spouse or children present.

Sister (in law) or brother (in law) of the household head aged 16 or over, not currently married and without parents, spouse or children present.

(Hugo 1981; ABS 1981a; 1981b)

In the 2001 Census a family was defined as ‘… two or more persons, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption, step or fostering, and who are usually resident in the same household (ABS 2001c:202).

The different classifications in the Family Type variables available in the 1981 and 2001 HSFs (ABS 1981b; 2001b) are compared below.

<table>
<thead>
<tr>
<th>1981 Census</th>
<th>2001 Census</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head only</td>
<td>Couple family with children under 15</td>
</tr>
<tr>
<td>Head and spouse and dependents</td>
<td>Couple family with dependent students (15-24)</td>
</tr>
<tr>
<td>Head, spouse, adults and dependents</td>
<td>Couple family with children under 15 and dependent students</td>
</tr>
<tr>
<td>Head and Spouse</td>
<td>Couple family with non-dependent children</td>
</tr>
<tr>
<td>Head and Dependents</td>
<td>Couple family without children</td>
</tr>
<tr>
<td>Head and adults and dependants</td>
<td>One parent family with children under 15</td>
</tr>
<tr>
<td>Head and spouse and adults</td>
<td>One parent family with dependent students (15-24)</td>
</tr>
<tr>
<td>Head and adults</td>
<td>One parent family with children under 15 and dependent students</td>
</tr>
<tr>
<td>Not applicable</td>
<td>One parent family with non-dependent children</td>
</tr>
<tr>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td></td>
<td>Other family</td>
</tr>
</tbody>
</table>

In the 2001 HSF, data was available at the two digit level as shown above. Data was not available at the 3 digit level which meant that information was not provided on the extent to which these families included related adults. The 2001 classification of ‘Other Family’ is defined in the 2001 Census Dictionary as:

... a family of other related individuals residing in the same household. These individuals do not form a couple or parent-child relationship with any other person in the household and are not attached to a couple or one parent family in the household.

(ABS 2001c:234)

The purpose of the ‘other family’ category is to differentiate related individuals who do not form part of a child/parent or spouse/partner relationship with others in the household. For example:
If two brothers, for example, are living together and neither is a spouse/partner, a lone parent or a child, then they are classified as an Other Family. However, if the two brothers share the household with the daughter of one of the brothers and her husband, then both brothers are classified as other related individuals and are attached to the couple family.

(ABS 2001:234)

The 1981 HSF provided no detail about whether dependants were 15 and under or whether they were students aged 16-20 and, while several categories included related adults, these could be either older parents/relatives or adult children. Even categories which, on the surface, appear to be directly comparable, such as couples only, couples with dependent children and single parent with dependent children cannot really be accurately compared. This is because in the 1981 Census not all dependants were included in the ‘Head, spouse with dependants’ and ‘Head with dependants’ categories. Additional dependants were included in the categories ‘Head, spouse, dependent children and adults’ and ‘Head, dependent children and adults’. Equally, the 1981 ‘Couples only’ category did not include all couples with no children living at home. Instead, a substantial proportion of these couples were likely to be included in the 1981 ‘Head, spouse, adults’ category.

The Table below shows the categories for each cohort prior to combining the categories.

<table>
<thead>
<tr>
<th>Classification</th>
<th>1981 – Aged 45-54</th>
<th>2001 – Aged 45-54</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males %</td>
<td>Females %</td>
</tr>
<tr>
<td>Couple only</td>
<td>16.2</td>
<td>22.7</td>
</tr>
<tr>
<td>Couple with dependants</td>
<td>22.3</td>
<td>14.2</td>
</tr>
<tr>
<td>Single parent with dependants</td>
<td>0.9</td>
<td>2.9</td>
</tr>
<tr>
<td>Couple/Adults/Dependants</td>
<td>21.5</td>
<td>16.8</td>
</tr>
<tr>
<td>Couple/non-dep children</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head/Adults/Dependants</td>
<td>.7</td>
<td>2.4</td>
</tr>
<tr>
<td>Single parent/non-dep children</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head/Spouse/adults</td>
<td>19.3</td>
<td>23.7</td>
</tr>
<tr>
<td>Head/adults</td>
<td>3.5</td>
<td>6.1</td>
</tr>
<tr>
<td>Not applicable</td>
<td>7.5</td>
<td>4.6</td>
</tr>
<tr>
<td>Head only</td>
<td>8.1</td>
<td>6.5</td>
</tr>
<tr>
<td>Other family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>749100</td>
<td>719200</td>
</tr>
</tbody>
</table>

(ABS, 1981b; 2001b)

**Household Composition**

**2006 Variable HHCD Household Composition**

The classifications available in the 2006 CSF (ABS, 2006b) included:
• One family household
• Two and three family households
• Lone person households
• Group households
• Visitors only
• Other not classifiable
• Not applicable

1986 Variable HST Household Type

The classifications available in the 1986 HSF (ABS, 1986) included:

• Primary family only
• Two families
• Group household
• Lone person household
• Not applicable

Based on results from the longitudinal Harvard Study of Adult Development, Vaillant (2003) developed ‘... a heuristic model of successful ageing for the 21st century’ (Vaillant & Mukhumal, 2001:841). Essential elements of this model are identified in Table 1 which lists six domains of function used to define wellbeing in old age and the seven factors identified by the Harvard Study as being independent predictors of successful ageing.

Table 1: Predictive Factors and Domains of Function

<table>
<thead>
<tr>
<th>NOTE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>This table is included on page 321 of the print copy of the thesis held in the University of Adelaide Library.</td>
</tr>
</tbody>
</table>

Source: (Vaillant and Mukamal, 2001:839-847)

Successful ageing is conceptualised along a continuum which ranges from the prematurely dead, the sad-sick, the inter-mEDIATE, and the happy-well. In Vaillant’s development of this model, placement along the continuum was based on a global score calculated from an individual’s combined performance in each of the six domains (Vaillant & Mukhumal, 2001:842). Results showed that the more protective factors an individual had at age 50 the more likely they were to be categorised as the ‘happy-well’ at age 80. Equally, those with few protective factors at this age were much more likely to die prematurely or to be amongst the sad-sick at age 80 (Vaillant & Mukhumal, 2001:843-844). Vaillant places considerable emphasis on the fact that key predictive factors are to some extent under the personal control of the individual thus making successful ageing potentially accessible to all. Of factors outside of the individual’s control, only major depressive illness experienced before age 50 was identified as a key predictor of poor ageing.

From a theoretical perspective, the concept of ‘ageing well’ is situated within a life-span developmental framework which assumes that human development extends across the entire life course and involves constant adaptation and development. Vaillant considers health, in
both its physical and psychosocial expressions, to be difficult to measure, with this making it
difficult to define successful ageing. However, he notes that ‘Positive ageing must always
reflect vital reaction to change, to disease, and to environmental imbalance’ (Vaillant,
2003:161). Equally, he asserts that ‘Positive ageing is not simply avoidance of physical decay
and it certainly is not about the avoidance of death’ (Vaillant, 2003:161). Vaillant’s model
highlights the importance of both physical and psychosocial health and of the multiple
associations between the two and while he acknowledges the importance of objective health
he also points to subjective assessments of health as being of key importance in defining the
‘… difference between being “ill” and feeling “sick” ’ and hence as a key factor in whether a
person’s experience of the ageing process is negative or positive (Vaillant, 2003:186). In this
sense, his model of positive ageing is not defined by absolute standards of health and function
but allows for considerable inter-individual differences in its manifestation. Although he
acknowledges the importance of health and function in facilitating active involvement, and
hence an optimal experience of positive aging, he also focuses on the importance of
psychosocial adjustment as a means to adapting to the vicissitudes that may accompany
ageing. Chronic disease and disability may make activity and engagement more difficult but
they do not preclude wellbeing or the capacity to experience life as inherently meaningful, and
the grace with which difficulties are met is seen as an important part of ageing well.
Appendix 2.3: Successful ageing - Model developed by Baltes & Baltes (1990)

Baltes and Baltes (1990) present a psychological developmental framework for the study of successful ageing framed by life-span developmental theory and based on seven propositions or themes about the nature of human ageing. They consider that ‘… an encompassing definition of successful ageing requires a value-based, systemic, and ecological perspective’ in which ‘Both subjective and objective indicators need to be considered within a given cultural context with its particular contents and ecological demands’ (Baltes & Baltes, 1990:7).

Successful ageing is aligned with successful development in general and is defined as ‘…the maximization and attainment of positive (desired) outcomes and the minimization and avoidance of negative (undesired) outcomes’ (Freund & Baltes, 1998:531). Ageing is recognised as a highly individual process in which there is a large degree of variation and it is posited that notions of success in relation to old age may be quite different to notions of success in earlier phases of life. Their notion of successful ageing is broad and all encompassing rather than prescriptive as they do not identify a particular trajectory of ageing as ‘…the form of successful or optimal ageing’ towards which everyone should strive (Baltes & Baltes, 1990:21). Instead they delineate a dynamic model of adaptation in which the form that successful ageing takes varies between individuals and across cultures (Baltes & Baltes, 1990:21). In this sense it is a systemic model in which the assessment of successful ageing is based on the efficacy of a system rather than on the extent to which an individual meets certain pre-defined developmental outcomes or goals which are normative for a particular society. Such a systemic concept of successful psychological ageing differs from the more standardized concept of developmental progression theorized by Erikson in which generativity and wisdom are identified as central goal posts for later life (Erikson, Erikson, et al, 1986).

The development of a systemic concept of successful ageing rather than one framed around a fixed ideal reflects a shift in perspective from the universalism typical of modernity to an acknowledgement of diversity and of individualization processes, conditions which are explicated through the theoretical constructs of late modernity. Part of the rationale for adopting this perspective is based on the argument that the normative definition of an ideal state assumes a highly standardized society and that such a definition is most likely to ‘…reflect the priorities and values of the middle and upper classes’ (Baltes & Baltes, 1990:7).
Hence, it would not reflect the extensive heterogeneity in ageing and would inevitably exclude sections of the population. Another key component of this model is its adoption of an ecological perspective which recognises the effect of the environment on the ageing process, both in terms of influences throughout life and through the potential it has to mediate the losses associated with ageing when enriched by the provision of culture based resources.

The model for successful ageing developed by Baltes and Baltes is grounded in psychology but also takes into account the biomedical and social aspects of successful ageing. It recommends the use of multiple objective and subjective criteria to assess the ‘...objective aspects of medical, psychological, and social functioning and the subjective aspects of life quality and life meaning...’ (Baltes & Baltes, 1990:7). The need to use both subjective and objective criteria when assessing life quality and life meaning is justified with reference to the capacity of the human psyche to adjust to negative conditions by reframing the life situation in positive terms which do not necessarily accord with actual conditions. The specification of objective measures of life quality and meaning draws on the concept of successful ageing as being based on the efficacy of a system, as described above, rather than as a pre-defined developmental outcome or goal which is normative for a particular society. Hence objective criteria are specified in terms of adaptivity or behavioural plasticity, as this measures the ‘...potential and preparedness of a human organism for dealing with a variety of demands’ (Baltes & Baltes, 1990:7). This shifts the criterion of success from one which is outcome based to one that focuses on process and in doing so opens the way to an inclusive but still objective and rigorous concept of successful ageing.

Drawing on a psychological perspective, Baltes & Baltes (1990) developed seven propositions (Table 1) about the nature of human ageing, arguing that the concept of successful ageing needs to be contextualised within this framework.
Table 1: Framework of Propositions

<table>
<thead>
<tr>
<th>NOTE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>This table is included on page 325 of the print copy of the thesis held in the University of Adelaide Library.</td>
</tr>
</tbody>
</table>

Source: Baltes & Baltes (1990:7-19)

Based on these propositions they identified a number of general principles (Table 2) that should inform potential strategies for ageing.

Table 2: General Principles

<table>
<thead>
<tr>
<th>NOTE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>This table is included on page 325 of the print copy of the thesis held in the University of Adelaide Library.</td>
</tr>
</tbody>
</table>

Source: Baltes & Baltes (1990:19-21)

This framework and the principles and strategies which arise from it have significance for both social policy and individual action. A major theme to emerge is the importance of the role of social resources and opportunities in facilitating the individual’s execution of the above strategies, an aspect of social culture which Baltes & Baltes (1990) regard as largely under-developed. A second theme is the need to orient social policy around the individualization of services, resources and opportunities in order to meet the needs of a heterogeneous ageing
population in which the ageing process is marked by significant inter-individual variability. A third theme relates to the multiple forms that successful ageing can take as individuals may age successfully in different ways according to individual adaptation needs and external circumstances. Using the framework of propositions and strategies set out above, Baltes and Baltes, developed the concept of ‘selective optimization with compensation’ (SOC) as a proto-typical strategy designed to facilitate ‘…self efficacy and growth in the context of increasing biological vulnerability and reduced reserve capacity’ (Baltes & Baltes, 1990:21). The SOC model provides a general theoretical framework for understanding the regulation of developmental change across the life course and ‘…builds on the assumption that throughout the entire life span, people encounter certain opportunity structures (e.g., education) as well as limitations in resources (e.g., illnesses) that can be mastered adaptively by an orchestration of three components: selection, optimization, and compensation’ (Freund & Baltes, 1998:531). SOC is essentially a metamodel that can be operationalised ‘…across different levels of analysis, ranging from the micro level (eg cognitive development) to the macro level (e.g. development of societies), as well as across different domains of functioning (e.g. academic achievement or social relations)’ (Freund & Baltes, 2002). This is a dynamic model which reflects ‘…the interplay between gains and losses’ and the interaction between self and the environment and aims to serve ‘…as a guideline for an individual’s thoughts and actions and for social policy’ (Baltes & Baltes, 1990:21). Although it describes ‘…a general process of adaptation’ with which individuals engage throughout the life course it has particular relevance in older age due to the age related reduction in biological, mental, and social reserves (Baltes & Baltes, 1990:21). The SOC strategy is individualistic in nature as the process of selection, optimization and compensation will differ with each individual while the determination of whether the strategy has resulted in successful ageing could be seen as the extent to which there is ‘...a creative, individualized, and societally appropriate combination of selection, optimization, and compensation’ (Baltes & Baltes, 1990:24).
### Appendix 2.4: Relevant Variables Included in NWAHS Stages One and Two

<table>
<thead>
<tr>
<th>Variables</th>
<th>CATI Interview</th>
<th>Self Report Questionnaires A (S1)</th>
<th>Self Report Questionnaires B (S2)</th>
<th>Self Report Questionnaires B1 (S2)</th>
<th>Clinic examination</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stage of the Study</strong></td>
<td>St 1</td>
<td>St 2</td>
<td>AS1</td>
<td>BS2</td>
<td>BS2</td>
</tr>
<tr>
<td><strong>Collection Dates</strong></td>
<td><strong>P1:99-00</strong></td>
<td><strong>P2:02-03</strong></td>
<td><strong>P1:99-00</strong></td>
<td><strong>P2:02-03</strong></td>
<td><strong>P1:99-00</strong></td>
</tr>
<tr>
<td><strong>Demographics</strong></td>
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<tr>
<td><strong>Health Conditions</strong></td>
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</tr>
<tr>
<td>Diabetes</td>
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<td>√</td>
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<tr>
<td>Asthma</td>
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<tr>
<td>Stroke</td>
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</tr>
<tr>
<td>Angina</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
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</tr>
<tr>
<td>Transient Ischaemic attack/mini stroke</td>
<td>√</td>
<td>√</td>
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<tr>
<td>Stress related or mental health problems</td>
<td>√</td>
<td>√</td>
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<td></td>
</tr>
<tr>
<td>Depression (CES-D)</td>
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<td>GHQ-12</td>
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</tr>
<tr>
<td>Arthritis</td>
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<tr>
<td>Osteoporosis</td>
<td>√</td>
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</tr>
<tr>
<td>Sleep apnoea</td>
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1Questionnaire A, Stage 1; 2Questionnaire B, Stage 2; 3Questionnaire B1, Stage 2.

1Phase 1 of Stage 1; 2Phase 2 of Stage 1.

Source: (Grant et al. 2006; Grant et al. 2009)
Appendix 2.5: Response Rate for Stages of the North West Adelaide Health Study

Timeline | Phases of the study
--- | ---
Jan 2000 | Eligible random, representative Electronic White Pages (EWP) sample, north-west Adelaide
Feb to Nov 2000 | Study recruitment of adults aged 18 years and over, using Computer Assisted Telephone Interview (CATI) system
March 2002 | Attended clinic (Phase 1A n=2523)
Sept 2002 to June 2003 | Telephone Follow Up 1 (n=2231)
May 2004 to Feb 2006 | Additional – attended clinic (Phase 1B n=1537)
July to Nov 2007 | Second major follow-up (n=3563) including clinic assessment of cohort (n=3206)
June 2008 to May 2010 | Telephone Follow Up 2 (n=3622)

Third major follow-up including clinic assessment of cohort

Source: (Grant, Taylor et al. 2009:1481)
Appendix 2.6: Previously Validated Survey Instruments Used in Stage 2

SF-36 Quality of Life

The Short Form 36 (SF-36) is a well known and proven measure of health related quality of life and has been validated for use in Australia (McCallum 1995). It is a generic indicator of health status which has proven useful in surveys of populations. It enables the relative burden of diseases to be compared and the health benefits of different treatments to be differentiated. The SF-36 consists of eight dimensions including: Physical Functioning (PF), Role Physical (RP), Bodily Pain (BP), General Health (GH), Vitality (VT), Social Functioning (SF), Role Emotional (RE) and Mental Health (MH). The SF-36 can be collapsed into two summary scores, the physical component summary score (PCS) and the mental component summary score (MCS). In this study the SF-36 was administered through Questionnaire B in Stage 2.

Chronic Lung Disease (CLD) Index

The CLD index is a symptom-based measure of severity for CLD developed by Selim et al (1997) and shown to be a valid and reliable instrument for use in Australia. The six-item instrument addresses the frequency and intensity of dyspnea (shortness of breath), frequency and intensity of wheezing, frequency of coughing, and amount of sputum production, and can be summarized into mild, moderate and severe symptoms. The CLD Index is an indicator of functional capacity and is one of several health variables used to identify subgroups at greater risk of poor health in later life. Lung health is an important component of functional capacity, and moderate to severe CLD symptoms have been shown to be significantly associated with lower scores on components of the SF-36 (Grant et al, 2005:22). In addition, peak pulmonary flow rate has been identified by Rowe & Kahn (1997) as a predictor of cognitive function in older adults.

Centre for Epidemiologic Studies Depression Scale (CES-D)

The CES-D is a widely used 20 item self-report scale which measures the current level of depressive symptomatology in the general population (Radloff, 1977). It was derived from five validated depression scales including the Beck Depression Inventory (BDI) and has good test-retest reliability (Ensel, 1986). Data for the CES-D was obtained from the self-report
CATI interview in Stage 2. The 20 items on the CES-D were scored together and scores were classified into one of two variables as follows: p2cesddp2 - no depressive symptoms (CES-D<16), mild depression (CES-D≥16), and moderate to severe depression (CES-D>26); p2cesddp – no depressive symptoms (CES-D<16) and depressive symptoms (CES-D≥16).

**Goldberg’s General Health Questionnaire (GHQ-12)**

The GHQ-12 is a subset of the GHQ-28. It is a screening questionnaire for detecting current, independently verifiable forms of psychiatric illness, including depression, anxiety, social impairment and hypochondriasis. It does not make a clinical diagnosis. It is the most widely applied self completion measure of psychiatric disturbance in the UK and has numerous worldwide applications. The GHQ-12 was administered through the postal questionnaire B in Stage 2. Participants were asked 12 questions which were scored together to gauge psychological wellbeing in this population. A score of 0 or 1 classifies persons as having ‘low or no disturbance’, 2-3 as having ‘mild or moderate disturbance’ and 4 or greater as having ‘high or severe disturbance’. Two variables were constructed from this data including: z2ghqhigh – no, low, mild or moderate disturbance (GHQ-12 <4) and high or severe disturbance (GHQ-12 ≥4); and z2ghqgp – no or low disturbance (GHQ-12<2), mild or moderate disturbance (GHQ-12 <4) and high or severe disturbance (GHQ-12≥4).
CASE: (ID number)

A. INTRODUCTION

Good ... My name is ... from the North West Adelaide Health Study. Could I please speak with (name of study participant)?

Either
a) Repeat introduction - go to A1.
b) If required person not available, ask for a suitable time to call back. Record first name and make appointment to call back (End).
c) If required person died, go to A3. If information offered re cause of death or date, record same.
d) If required person is no longer at this telephone number, go to A4 to record details.

A1 We recently sent your household a letter from the Professor of Medicine about your continued participation in the North West Adelaide Health Study. Did you receive the letter identifying the benefits of continuing to help us with this study?

(Single response)
1. Yes
2. No
3. Don't know

Sequence guide: If A1 = 1 (ie recd letter), go to A5

A2 The letter explained that we would like you to help us by answering some questions over the phone, and possibly fill out a questionnaire which we would send to you. Would you like me to read or post the letter to you?

(Single response. Interviewer note: If yes, please read out letter now or record address to post a letter)
1. Yes, post out letter - check/enter address (Header of current address)
2. No
3. Don't know

Sequence guide: Go to A5

A3 (if participant has died) THEIR past involvement in the study has been most valuable in providing information that is helping to improve the health of the community.

1. Enter CAUSE of death (if volunteered)
2. Enter DATE of death (if volunteered)
3. No details give / unknown

[END/TERMINATION OF INTERVIEW - go to Q]

Information to be supplied in separate file for noting.

A4 Record forwarding address and/or telephone number for study participant.

1. Forwarding address [specify]
2. Forwarding telephone number [specify]
3. No details give / unknown

[END/TERMINATION OF INTERVIEW - go to Q]

If A4=2 (new tel number specified), participant to be re-called. If A4=3 (no details given), disposition to be recorded as "incorrect number" and ID supplied for tracking.

A5 We are seeking your help by answering some questions about your health and wellbeing. Would you have some time now to answer a few questions?

(Single response)
1. Yes
2. No - make appointment to call back later
3. No - refusal

Completed interviews in dispositions will include refusals - actual completed interviews of CATI survey to be calculated from A5.

I can assure you that information you give will remain confidential. The answers from all people interviewed will be gathered together and presented in a report. No individual answers will be passed on.

Sequence guide: If A5 = 1 (yes), go to B.
A6 Your ongoing participation is vital to the success of the study in its efforts to improve the health of people both in your community and South Australia in general. Could I ask why you no longer want to be involved in the study?

(Single response. Interviewer note: Participants who are currently pregnant can still take part as it is only a telephone interview and a questionnaire - if not convenient time, make appt to call back within 1 month [study duration])

1. Too old
2. Too sick
3. Health problem(s)
4. Too busy
5. Don’t want to participate
6. Tired of being asked
7. Moved out of area
8. Moved interstate/overseas
9. Other (specify)
10. No
11. Currently pregnant

Sequence guide: If A6 = 7 or 8 (moved out of area), go to A8.

A7 Try to convert for this telephone follow up. Successful?

(Single response)

1. Yes
2. No - definite

Sequence guide: If A7 = 2 (definite withdrawal), go to O1

A8 (moved out of area - locally or interstate, overseas) You are very important to us because you are still a part of the North West Adelaide Health Study. Try to convert - successful?

(Single response)

1. Yes
2. No - definite

Sequence guide: If A8 = 2 (definite withdrawal), go to O1

B. DEMOGRAPHICS

Just to start with a few general questions ...

B1 How would you best describe your family structure?

(Read options. Single Response)

1. A family with a child or children living with both biological or adoptive parents
2. A step or blended family
3. A sole parent family
4. Shared care parenting
5. Adult living alone
6. Adult living with partner and no children
7. Related adults living together
8. Unrelated adults living together
9. Other (specify)
10. Refused

B2 What is your current marital status? Are you ...

(Read options. Single Response)

1. Married
2. Living with a partner (defacto)
3. Significant committed relationship but living apart from choice
4. Significant committed relationship but living apart because of work or family commitment in different locations
5. Separated but not divorced
6. Divorced
7. Widowed
8. Never married
9. Refused

Sequence guide: If B2 > 4 (ie not in a relationship), go to B4

B3 How would you rate the quality of that relationship? Would you say ...?

(Read options. Single response)

1. Very high
2. High
3. Neutral
4. Low
5. Very low
6. Don’t know
7. Refused
**B4** What is your current employment status? 
Are you ...?
(Read options. Single response. *Interviewer note:* if caring for someone - if being paid as a job, code as either Response 1 or 2; if caring for a relative and receiving a pension, code as unemployed or home duties if this would be their normal role)

1. Employed - Full time
2. Employed - Part time
3. Casual
4. Unemployed
5. Student - Full time
6. Student - Part time
7. Retired
8. Home duties
9. Volunteer
10. Unable to work
11. Don’t know
12. Refused

Sequence guide: If B4 > 3 (ie no paid employment), go to B7

**B5** In the last week, how many hours did you undertake paid employment?
(Single Response)
1. None
2. Enter hours [number - limit field to 99]
3. Don’t know
4. Refused

**B6** What is your current occupation?
(Single response. *Interviewer note:* the term occupation describes a particular type of job, eg plumber, nurse, teacher, clerk)

1. Accountant
2. Administration/clerical
3. Banking
4. Boilermaker
5. Bookkeeping
6. Building/construction
7. Butcher
8. Cabinet maker
9. Care worker
10. Carpenter
11. Childcare
12. Cleaner
13. Defence force
14. Dressmaker
15. Electrician
16. Electronics
17. Engineer
18. Factory work
19. Farmer
20. Fitter and turner
21. Hairdresser
22. Hospitality
23. Labourer
24. Manager
25. Mechanic
26. Nursing - registered nurse and above
27. Nursing - enrolled nurse
28. Plumber
29. Retail/sales assistant
30. School teacher
31. Truck driver
32. Other (specify)
33. Don’t know
34. Refused
B7 Since finishing school, have you ever had a period of 5 years or more outside of the paid work force?
(Single response. Interviewer note: If self-employment (i.e., own business) is their MAIN source of income, code as Response 2; otherwise if it is a "hobby" (not main source of income), code as Response 1 B7 and include Response 1 in next question B8)
1. Yes
2. No
Sequence guide: If B7=2 (no), go to B9

B8 What were your MAIN reasons for not working?
(Multiple response)
1. Self employment
2. Voluntary work
3. Unemployment
4. Further education
5. Alternative lifestyle
6. Health problems
7. To raise a family
8. To look after parents or other family members
9. Travel
10. Other (please specify)
11. Don’t know
12. Refused
13. Retired

B9 Do you study at a tertiary institution such as a university or TAFE college?
(Single response. Interviewer note: prompt for FULL time or PART time study status)
1. Yes - FULL time Student
2. Yes - PART time Student
3. No
Sequence guide: If B8 = 3 (no), go to B11

B10 In the last week, how many hours did you undertake study?
(Single Response)
1. None
2. Enter hours [number - limit field to 99]
3. Don’t know
4. Refused

B11 Do you undertake any volunteer activities?
(Single response)
1. Yes
2. No
Sequence guide: If B11 = 2 (no), go to B13

B12 In the last week, how many hours did you undertake volunteer work?
(Single Response)
1. None
2. Enter hours [number - limit field to 99]
3. Don’t know
4. Refused

Sequence guide: If B2 > 4 (i.e., not married or in a defacto or committed relationship), go to B14

B13 What is your current spouse/partner’s employment status? Are they ...
(Read options. Multiple response)
12. Employed – Full time
13. Employed – Part time
14. Casual
15. Unemployed
16. Student – Full time
17. Student – Part time
18. Retired
19. Home duties
20. Volunteer
21. Unable to work
22. Don’t know
23. Refused

B14 Do you provide long term care at your home or their home, for someone with a disability, or who is frail, aged, or who has a chronic mental or physical illness?
(Single response. Interviewer note: Long term care is either a minimum of 6 months which may extend into years, or they have just started a caring role and they anticipate it will be ongoing (i.e., not short term say as a result of an injury). This does NOT include if this is their occupation)
1. Yes
2. No
Sequence guide: If B14 = 2 (no), go to next section C.
B15 Is this FULL-time care?
(Single response. Interviewer note: Full time care is providing assistance with another person’s needs every day for the majority of the day)
1. Yes
2. No
3. Refused

Sequence guide: If B15 > 1 (no or refused), go to B17

B16 Can you please tell me who you provide FULL-time long term care for?
(Multiple response. Interviewer note: prompt if necessary for age of person being cared for; if 65+, enter as ELDERLY)
1. Partner
2. (Own) Child(ren)
3. Grandchild(ren)
4. Parent(s)/Parents-in-law
5. Other relative
6. Other ELDERLY relative
7. Other person(s) - not related
8. Other ELDERLY person(s) - not related
9. Refused

B17 Do you provide PART-TIME long term care for someone?
(Single response)
1. Yes
2. No
3. Refused

Sequence guide: If B17 > 1 (no or ref), go to B20

B18 Can you please tell me who you provide PART-TIME long term care for?
(Multiple response. Interviewer note: prompt if necessary for age of person being cared for; if 65+, enter as ELDERLY)
1. Partner
2. (Own) Child(ren)
3. Grandchild(ren)
4. Parent(s)/Parents-in-law
5. Other relative
6. Other ELDERLY relative
7. Other person(s) - not related
8. Other ELDERLY person(s) - not related
9. Refused

B19 How many hours per week do you spend performing this part-time care?
1. Enter hours [number - limit field to 99]
2. Don’t know
3. Refused

B20 In relation to your caring responsibilities, do you have support from any of the following?
(Read options. Multiple response)
1. Siblings
2. Other family member/s
3. Friends
4. Formal services such as Meals on Wheels, and the Royal District Nursing Service
5. Other (specify)
6. Refused
7. None
C. ACTIVE AUSTRALIA

The next few questions are about any physical activities that you may have done in the last week.

C1  In the last week, how many times have you walked continuously, for at least 10 minutes, for recreation, exercise or to get to or from places?

(Single Response)
0. None
1. Enter number of times [number - limit field to 99]
2. Not stated/Don’t know [enter 999]
3. Refused [enter 998]

Sequence guide: If C1 = 0 (none), go to C3

C2  What do you estimate was the total time that you spent walking in this way in the last week?

(Single Response. Enter number of hours AND/OR minutes.)
1. Enter hours [number - limit field to 168, ie max number of hrs in a week]
2. Enter minutes [number - limit field to 59]
3. Not stated/Don’t know [enter 999]

C3  This question excludes household chores or gardening. In the last week, how many times did you do any vigorous physical activity which made you breathe harder or puff and pant? (eg tennis, jogging, cycling, keep fit exercises)

(Single Response)
0. None
1. Enter number of times [number - limit field to 99]
2. Not stated/Don’t know [enter 999]
3. Refused [enter 998]

Sequence guide: If C3 = 0 (none), go to C5

C4  What do you estimate was the total time that you spent doing this vigorous physical activity in the last week?

(Single Response. Enter number of hours AND/OR minutes.)
1. Enter hours [number - limit field to 168, ie max number of hrs in a week]
2. Enter minutes [number - limit field to 59]
3. Not stated/Don’t know [enter 999]

C5  This question excludes household chores or gardening. In the last week, how many times did you do other more moderate physical activities that you have not already mentioned? (eg lawn bowls, golf, gentle swimming, etc)

(Single Response)
0. None
1. Enter number of times [number - limit field to 99]
2. Not stated/Don’t know [enter 999]
3. Refused [enter 998]

Sequence guide: If C5 = 0 (none), go to next section (D).

C6  What do you estimate was the total time that you spent doing these activities in the last week?

(Single Response. Enter number of hours AND/OR minutes.)
1. Enter hours [number - limit field to 168, ie max number of hrs in a week]
2. Enter minutes [number - limit field to 59]
3. Not stated/Don’t know [enter 999]
D. LIFECOURSE PERSPECTIVE

Now just to change the subject ... the next few questions will help us understand how people’s health is affected by their family background.

D1 Could you please tell me ... what was your MOTHER’S country of birth?

(Single response)
1. Australia
2. Austria
3. Bosnia-Herzegovina
4. Canada
5. China
6. Croatia
7. France
8. Germany
9. Greece
10. Holland/Netherlands
11. Hong Kong
12. Iran
13. Italy
14. Japan
15. Malaysia
16. New Zealand
17. Philippines
18. Poland
19. Slovenia
20. Spain
21. UK and Ireland
22. USA
23. Vietnam
24. Former Yugoslav Republic of Macedon
25. Former Yugoslav Republics of Serbia & Montenegro
26. Other (specify)
27. Don’t know / refused

D2 What kind of work did your MOTHER do for MOST of her life?

(Multiple Response. Interviewer note: If adopted, then adopted mother. If have step-mother, then it is the person who they spent most of their time with when they were young. If mother has more than one type of work, enter all. The time frame is the participant’s adult life - may have been home duties most of their life.)
1. Accountant
2. Administration/clerical
3. Banking
4. Boilermaker
5. Bookkeeping
6. Building/construction
7. Butcher
8. Cabinet maker
9. Care worker
10. Carpenter
11. Childcare
12. Cleaner
13. Defence force
14. Dressmaker
15. Electrician
16. Electronics
17. Engineer
18. Factory work
19. Farmer
20. Fitter and turner
21. Hairdresser
22. Hospitality
23. Labourer
24. Manager
25. Mechanic
26. Nursing - registered nurse and above
27. Nursing - enrolled nurse
28. Plumber
29. Retail/sales assistant
30. School teacher
31. Truck driver
32. Other (specify)
33. Unemployed
34. Home duties
35. Student
36. Unable to work (disability)
37. Don’t know
38. Not Applicable
39. Refused
D3  What was your FATHER’S country of birth?
(Single response)
1. Australia
2. Austria
3. Bosnia-Herzegovina
4. Canada
5. China
6. Croatia
7. France
8. Germany
9. Greece
10. Holland/Netherlands
11. Hong Kong
12. Iran
13. Italy
14. Japan
15. Malaysia
16. New Zealand
17. Philippines
18. Poland
19. Slovenia
20. Spain
21. UK and Ireland
22. USA
23. Vietnam
24. Former Yugoslav Republic of Macedon
25. Former Yugoslav Republics of Serbia & Montenegro
26. Other (specify)
27. Don’t know / refused

D4  What kind of work did your FATHER do for MOST of his life?
(Multiple Response. Interviewer note: if adopted, then adopted father. If have step-father, then it is the person who they spent most of their time with when they were young. If father has more than one type of work, enter all.)
1. Accountant
2. Administration/clerical
3. Banking
4. Boilermaker
5. Bookkeeping
6. Building/construction
7. Butcher
8. Cabinet maker
9. Care worker
10. Carpenter
11. Childcare
12. Cleaner
13. Defence force
14. Dressmaker
15. Electrician
16. Electronics
17. Engineer
18. Factory work
19. Farmer
20. Fitter and turner
21. Hairdresser
22. Hospitality
23. Labourer
24. Manager
25. Mechanic
26. Nursing - registered nurse and above
27. Nursing - enrolled nurse
28. Plumber
29. Retail/sales assistant
30. School teacher
31. Truck driver
32. Other (specify)
33. Unemployed
34. Home duties
35. Student
36. Unable to work (disability)
37. Don’t know
38. Not Applicable
39. Refused
D5 How would you best describe your family structure when you were 4 years old? Was it ...?
(Read options. Single response)
1. A family with a child or children living with both biological or adoptive parents
2. A step or blended family
3. A sole parent family (lived only with mother)
4. A sole parent family (lived only with father)
5. Shared care parenting
6. Other (specify)
7. Don’t know
8. Refused
9. Not applicable

D6 Did you have any siblings when you were 4 years old?
(Single response)
1. Yes
2. No
3. Don’t know
4. Refused

Sequence guide: If D6 > 1 (no, dk or refused), go to D8

D7 How many siblings did you live with when you were 4 years old?
(Single response)
1. Enter number (number - limit field to 15]
2. Don’t know
3. Refused

D8 Thinking back to when you were 4 years old, did either or both of your parents or guardian smoke?
(Single response)
1. Yes
2. No
3. Don’t know
4. Refused

D9 When you were a child, was either your parents or guardian unemployed WHEN THEY WANTED TO BE WORKING?
(Single response)
1. Yes
2. No
3. Don’t know
4. Refused

Sequence guide: If D9 > 2, (ie no, dk or refused), go to D11

D10 How long was your parent or guardian unemployed for? Was it ...?
(Read options. Single Response)
1. Less than 6 months
2. From 6 months to less than 1 year
3. From 1 year to less than 2 years
4. From 2 years to less than 3 years
5. More than 3 years
6. Has always been unemployed
7. Don’t know
8. Refused

Sequence guide: If D10 > 2, (ie no, dk or refused), go to D11

D11 How many children do you have?
(Single Response. Interviewer note: this DOES include adopted children or step-children)
1. No children
2. Enter [number - limit field to 99]
3. Refused

Sequence guide: If D11 = 1 or 3 (ie no children or refused), go to E1.
D21 How many children (including adopted and step children) do you have living at home of the following ages?

(Read options. Single Response)

1. **15 years of age or less** [specify - enter number field]
2. **Between 16 and 24 years of age** [specify - enter number field]
3. **25 years and over** [specify - enter number field]
4. Refused
5. None living at home

D22 Now thinking of your BIOLOGICAL children only, how many are aged 15 years of age or less and living at home?

(Single Response)

1. None
2. Enter number (limit field to 20)
3. Refused

E. EARLY LEARNING

Still thinking about when you were young ...

E1 Did you attend kindergarten or preschool?

(Single response. Interviewer note: Pre-school is also known as kindergarten: they are places for learning and development, generally for 4 year old children in the 12 months before primary school starts. It is not a child care centre or child minding facility)

1. Yes
2. No
3. Don’t know
4. Refused

Sequence guide: If E1 > 1 (no, dk or refused), go to E4

E2 How old were you when you first started kindergarten or preschool?

(Single response)

1. 4 years old
2. 5 years old
3. Other (specify - Enter age [limit field to 1 digit])
4. Don’t know/Refused

E3 How many days a week did you attend the kindergarten or preschool?

(Single response)

0. Less than one day
1. 1 day
2. 2 days
3. 3 days
4. 4 days
5. 5 days
6. More than 5 days
7. Don’t know
8. Refused
E4  How many different primary schools did you attend?
(Single response)
1.  1
2.  2
3.  3
4.  4
5.  5 or more
6.  Don’t know
7.  Refused
8.  Did not attend primary school (ie did home schooling)

Sequence guide: If E4 = 8 (did not attend primary school), go to F.

E5  What is the name of the primary school you mostly attended?
(Single response. Interviewer note: only South Australian schools are relevant – if interstate, enter Response 2)
1. Enter primary school name [text]
2. Did not attend a primary school in South Australia
3. Don’t know
4. Refused

Sequence guide: If E5 = 2 (did not attend a SA primary school), go to F.

E6  Was this a …
(Read options. Single response)
1. Public school
2. Catholic school
3. Private or independent school
4. Don’t know
5. Refused

F. NEIGHBOURHOODS AND RESIDENTIAL MIGRATION

Now for some questions about where you live …

F1  Why did you choose to live in your current neighbourhood?
(Multiple Response. Interviewer note: PROMPT What factors were important to you in deciding where you wanted to live?)
1. Closeness to family
2. Closeness to shops or services
3. Closeness to friends
4. Closeness to work
5. Closeness to school
6. Family always lived in area
7. Access to public transport
8. Financial reasons/affordability
9. Safety
10. The area
11. The house/unit (residence)
12. Close to the beach
13. Close to the city
14. Other (specify)
15. Don’t know
16. Refused

F2  How strongly would you agree or disagree with the following statement … I feel a sense of community with others in my local neighbourhood. Would you say you …?
(Read options. Single response)
1. Strongly disagree
2. Disagree
3. Neither agree or disagree
4. Agree
5. Strongly agree
6. Don’t know
7. Refused

Sequence guide: If F2 = 1 thru 3, go to F4
F3 Can you please tell me why the main reason for this?
(Single response)
1. Too busy/my focus is on my family, job, friends
2. Not my type of people/different interests, lifestyle, stage of life, nothing in common
3. Like to keep to myself/not interested
4. Rental property
5. No community events to meet people
6. People not approachable/not a friendly neighbourhood
7. Don’t know neighbours
8. New to area
9. Don’t spend much time in neighbourhood
10. Other (specify)
11. Don’t know
12. Refused

F4 Can you please tell me about the place you live in? Is it a ...
(Read options. Single response. Interviewer note: People living in independent units attached to nursing homes OR students in university-owned apartments should be coded as Option 3 [flat, unit or apartment]. Those in a nursing home or hostel should be Option 6 [Institution or care situation]. Students living in a communal university facility but with own room, would be Option 7 [Residential Hall/College].)
1. Separate house
2. Semi detached house, row or terrace house, townhouse
3. Flat, unit or apartment
4. Caravan, tent, cabin
5. House, flat attached to shop, office
6. Institution or care situation (includes nursing home)
7. Residential hall/college (ie university boarding house)
8. Living in work-provided accommodation
9. Other (specify)
10. Don’t know
11. Refused

F5 In this residence, are you ...
(Read options. Single response. Interviewer note: Life tenure is the status of holding one’s position on a permanent basis without periodic contract renewals.)
1. Paying off a mortgage
2. The outright owner / joint owner
3. Renting (or pay board)
4. Using a rent to buy scheme
5. Living as a dependent child with parents
6. Living rent free
7. Able to live there for the remainder of your life (that is, you have life tenure)
8. Living in work-provided accommodation
9. Other (specify)
10. Don’t know
11. Refused
G. LIFESTYLE / NUTRITION

Just changing the subject ...

G1 How often do you consume foods that are prepared at home? Would you say ...?
(Read options. Single response. Interviewer notes: includes breakfast, lunch, tea and snacks. Includes canned and frozen foods that may be just defrosted and/or heated)
1. All or nearly all of the time
2. Most of the time
3. Some of the time
4. Hardly any or none of the time
5. Don’t know
6. Refused

G2 NUT1 How many serves of vegetables do you usually eat each day? A ‘serve’ is ½ cup cooked vegetables or 1 cup of salad.
(Single Response)
1. Less than one serve
2. Enter number of serves [number]
3. Don’t eat vegetables
4. None
5. Don’t know

G3 NUT2 How many serves of fruit do you usually eat each day? A ‘serve’ is 1 medium piece or 2 small pieces of fruit or 1 cup of diced pieces.
(Single Response)
1. Less than one serve
2. Enter number of serves [number]
3. Don’t eat fruit
4. None
5. Don’t know

G4 NUT3 What type of milk do you usually have?
(Single Response Interview note: if brand of milk given, prompt for type, ie whole milk or reduced fat)
1. Whole milk
2. Low or reduced fat
3. Skim
4. Soya
5. Evaporated/sweetened condensed
6. Other (specify)
7. None of the above
8. Don’t know
9. High calcium, low fat
10. Breast milk
11. Formula
12. Rice milk
13. Doesn’t drink milk

G5 NUT4 How often do you eat chips, french fries, wedges, fried potatoes or crisps?
(Single Response. Interview note: enter number of times per day, week or month)
1. Enter number of times per DAY [number]
2. Enter number of times per WEEK [number]
3. Enter number of times per MONTH [number]
4. Rarely (< once / month)
5. Never
6. Don’t know/can’t say

G6 NUT8 How often do you eat meat products such as sausages, frankfurters, fritz (devon), salami, meat pies, bacon or ham?
(Single Response. Interview note: enter number of times per day, week or month)
1. Enter number of times per DAY [number]
2. Enter number of times per WEEK [number]
3. Enter number of times per MONTH [number]
4. Rarely (< once / month)
5. Never
6. Don’t know/can’t say
G7 NUT18 During the last four weeks, on average, how many glasses of water do you usually have in a day?
(Single Response. Interviewer note: water is tap, bottled, rain. This does not include fruit juice, cordial, fizzy or energy drinks, milk, tea or coffee. A glass = 200 mls)
1. Enter number of glasses [number]
2. Enter mls [number]
3. Enter litres [number]
4. None
5. Don’t know
Sequence guide: If G7 = 4 (none), go to G9

G8 What type of water do you usually drink?
(Single Response)
1. Tap water
2. Rain water
3. Bottled (spring) water
4. Purified water
5. Carbonated plain water
6. Don’t know
7. Refused

G9 How often on average do you drink soft drink, cordial or sports drinks (eg Powerade and Gatorade)?
(Single Response. Interviewer note: enter number of times per day, week, month or year. Includes artificially sweetened drinks)
1. Enter number of times per DAY [number]
2. Enter number of times per WEEK [number]
3. Enter number of times per MONTH [number]
4. Enter number of times per YEAR [number]
5. Rarely (< twice / year)
6. Never
7. Don’t know/can’t say

G10 On average, how many litres of soft drink and sports drink (eg coke, lemonade, flavoured mineral water, Powerade, Gatorade) does your household buy at the supermarket each week?
(Single Response. Interviewer note: Seeking info about drinks purchased as part of household shopping trips, not drinks bought during the day for a meal or snack by household members. The large supermarket bottles are 2L, the medium ones are 1.25L and the small bottles sold in delis etc are 600ml)
1. Enter number of litres per WEEK [number]
2. Enter number of litres per FORTNIGHT [number]
3. Enter number of litres per MONTH [number]
4. Only for special occasions
5. Rarely (< once / month)
6. Don’t know
7. Refused

G11 Changing the subject once again ... On average, how many hours per day do you spend sleeping?
(Single response. Interviewer note: includes daytime sleeps, ie naps)
1. Enter hours [number - limit to 2 digits]
2. Don’t know
3. Refused

G12 How strongly would you agree or disagree with the following statement ... I find it easy to fit in some sort of physical activity during my usual day. Would you say you ...?
(Read options. Single response)
1. Strongly disagree
2. Disagree
3. Neither agree or disagree
4. Agree
5. Strongly agree
6. Don’t know
7. Refused
G13 Can you please tell me which of the following best describes you ...?
(Read options. Single response. Interviewer note: PROMPT if necessary regarding the majority of their friends)
1. Most of my friends know each other well
2. Most of my friends don’t know each other well
3. Most of my friends don’t know each other
4. Other (specify)
5. Doesn’t have any friends
6. Don’t know
7. Refused

Sequence guide: If G14 = 5 (does not have any friends), go to next section (H).

G14 How often do you spend time with friends who do not live with you: that is, you go to see them or they come to visit you or you go out to do things together? Would it be ...?
(Read options. Single response)
1. Two or more times a week
2. Once a week
3. Once every couple of weeks
4. Once a month
5. Other (specify)
6. Don’t know
7. Refused

G15 How many close friends do you have, that is people you feel at ease with and can talk to about private matters or can call on for help?
(Single response)
0. None
1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8 or more
9. Don’t know
10. Refused

Sequence guide: If G15 = 0 (none), go to next section (H).

G16 Of these close friends, how many live locally?
(Single response)
0. None
1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8 or more
9. Don’t know
10. Refused
H. HEALTH RELATED QUESTIONS

Just changing the subject once more ...

H1 In general, would you say your health is ...?
(Read Options. Single Response)
1. Excellent
2. Very good
3. Good
4. Fair
5. Poor

H2 In terms of your weight, do you consider yourself to be ..? 
(Read options. Single response)
1. Too thin
2. A little thin
3. Normal weight
4. A little overweight
5. Very overweight
6. Don’t know
7. Refused

H3 So, thinking about all aspects of your life such as employment, volunteer work, care commitments, study etc ... how would you rate the stress of your life commitments in general? Would you say ...?
(Read options. Single Response)
1. None
2. Mild
3. Moderate
4. Severe
5. Extreme
6. Don’t know
7. Refused

H4 As the next questions only relate to people of a particular age group, could you please tell me what year you were born in?

Sequence guide: If year of birth is before 1946 or after 1965, ie in 2007 the respondent is NOT aged between 42 to 61 years of age, go to L.

I. BABY BOOMERS ONLY

The next few questions are about how you might be preparing for retirement or later life. 
(Interviewer note: Retirement is defined as voluntary withdrawal from the full-time paid workforce - later life is defined as after the respondent turns 65 years of age)

I1 So thinking about retirement, can you tell me which stage you are at? Are you ...
(Read options. Single response. Interviewer note: If the respondent does home duties and therefore would not be retiring as such, enter Response 2)
1. Not thinking about it or planning for it yet 
2. Already thinking about it or planning for it 
3. Already retired 
4. Not going to retire 
5. Don’t know 
6. Refused 

Sequence guide: If I1 = 1 (not thinking about it yet), go to K. 
If I1 = 3 (ie has retired already), go to J. 
If I1 = 4 (ie does not intend to retire or does home duties), go to K.

I2 [IE FOR THOSE WHO ARE INTENDING TO RETIRE]
At what age do you intend to retire?
(Single response)
1. Enter age [number - limit field to 99]
2. Don’t know
3. Refused

I3 Do you intend to work part-time after you have officially retired?
(Single response)
1. Yes
2. No
3. Don’t know
4. Refused
I4  How much thought, if any, have you given to preparing for retirement - what you’ll do, what you’ll live on, etc? Would you say ...?
(Read options. Single response)
1. Not much
2. A little bit
3. A moderate amount
4. A good deal
5. A lot
6. Don’t know
7. Refused

I5  Which of the following aspects of retirement/later life would you consider seeking advice on?
(Read options. Multiple response)
1. Financial
2. Non-financial such as living arrangements, social and leisure activities etc
3. Neither of these
4. Don’t know
5. Refused

Sequence guide: If I5 = 1, 2 or 5 (is seeking advice or refuses), go to I7

I6  Can you please tell me the main reason for this ...?
(Single response)
1. I have already sought advice
2. I don’t think there is much point in planning
3. I am too busy
4. I have everything under control
5. Other (specify)
6. Don’t know
7. Refused

I7  Do any of the following make it difficult for you to think about and plan for your future retirement?
(Read options. Multiple response. Interviewer note: PROMPT if necessary if change of circumstance)
1. Lack of time
2. Multiple commitments eg children, parents, work etc
3. Lack of motivation/energy
4. Don’t know where to start
5. Insufficient money
6. Stress
7. Job insecurity
8. Housing insecurity
9. Ill health
10. Other (specify)
11. Don’t know
12. Refused
13. I’m not finding it difficult to think about and plan for my retirement

I8  Do you intend to renovate your home when you retire?
(Single response. Interviewer note: Renovating meaning upgrading or improving rooms or sections of the home)
1. Yes
2. No
3. Currently renovating
4. Don’t know
5. Refused
6. Not applicable

I9  Do you intend to move when you retire?
(Single response)
1. Yes
2. No
3. Currently moving
4. Don’t know
5. Refused

Sequence guide: If I9 > 1, go to I11
I10  Where do you intend to move? (Single response. Interviewer note: This may be a specific location, ie suburb/town/state, or it could be just a type of location eg near the sea, the country, inner city etc)
1. Same area where I live now
2. Enter location or type of location [text]
3. Don’t know
4. Refused

I11  In thinking about the environment you will live in during your retirement years ... how important is it to have access to a wide range of LEISURE ACTIVITIES? Would you say ...?
(Read options. Single response. Interviewer note: Leisure activities refers to things like water sports, theatre, horse-riding, golf, concerts, walking trails, etc)
1. Not at all
2. A little
3. Moderately
4. Very important
5. Extremely important
6. Don’t know
7. Refused
8. Has not thought about it

I12  (In thinking about the environment you will live in during your retirement years) ... how important is living close to FRIENDS? Would you say ...?
(Read options. Single response)
1. Not at all
2. A little
3. Moderately
4. Very important
5. Extremely important
6. Don’t know
7. Refused
8. Has not thought about it

I13  (In thinking about the environment you will live in during your retirement years) ... how important is living close to FAMILY? Would you say ...?
(Read options. Single response)
1. Not at all
2. A little
3. Moderately
4. Very important
5. Extremely important
6. Don’t know
7. Refused
8. Has not thought about it

I14  (In thinking about the environment you will live in during your retirement years) ... how important is the quality, extent and nearness of HEALTH SERVICES? Would you say ...
(Read options. Single response)
1. Not at all
2. A little
3. Moderately
4. Very important
5. Extremely important
6. Don’t know
7. Refused
8. Has not thought about it

I15  (In thinking about the environment that you will live in during your retirement years) ... how important is the quality, extent and nearness of GENERAL SERVICES such as banks, transport, businesses and shops?
(Read options. Single response)
1. Not at all
2. A little
3. Moderately
4. Very important
5. Extremely important
6. Don’t know
7. Refused
8. Has not thought about it
I16  What do you think will be your MAIN source of income in later life, that is after you have retired or after you have turned 65?
(Multiple response)
1.  Superannuation
2.  Self-funded (through own savings or investments eg shares, rental properties)
3.  Work
4.  Government pension
5.  Other (specify)
6.  Don’t know
7.  Refused

I17  Thinking about your money situation in later life (after you turn 65), would you say that you …?
(Read options.  (Single response)
1.  Will have enough to live comfortably
2.  Will have just enough
3.  Won’t have enough to make ends meet
4.  Don’t know
5.  Refused

Sequence guide:  Go to K15

J. BABY BOOMERS - THOSE WHO HAVE RETIRED ALREADY

J1  Do you …?
(Read options.  Single response)
1.  Work part time
2.  Plan to work part-time
3.  Have no intention of working part-time
4.  Don’t know
5.  Refused

J2  How much thought, if any, did you give to preparing for retirement - what you'd do, what you'd live on, etc? Would you say …?
(Read options.  Single response)
1.  Not much
2.  A little bit
3.  A moderate amount
4.  A good deal
5.  A lot
6.  Don’t know
7.  Refused

J3  Did you talk to a retirement consultant?
(Single response)
1.  Yes
2.  No
3.  Don’t know
4.  Refused

Sequence guide:  If J3=2 (no), go to J6
If J3 > 2 (dk or ref), go to J7

J4  Did you talk to the retirement consultant about financial aspects?
(Single response)
1.  Yes
2.  No
3.  Don’t know
4.  Refused

J5  Did you talk to the retirement consultant about non-financial aspects?
(Single response)
1.  Yes
2.  No
3.  Don’t know
4.  Refused
J6 Can you please tell me the main reason for this ...?
(Multiple response)
1. I didn’t think there was much point in planning
2. I was too busy
3. I had everything under control
4. Other (specify)
5. Don’t know
6. Refused

J7 Did any of the following make it difficult for you to think about and plan for your future retirement?
(Read options. Multiple response)
1. Lack of time
2. Multiple commitments eg children, parents, work etc
3. Lack of motivation/energy
4. Don’t know where to start
5. Insufficient money
6. Stress
7. Job insecurity
8. Housing insecurity
9. Ill health
10. Other (specify)
11. I did not find it difficult to think about and plan for my retirement
12. Don’t know
13. Refused

J8 Did you renovate your home when you retired?
(Single response. Interviewer note: Renovating meaning upgrading or improving rooms or sections of the home)
1. Yes
2. No
3. Don’t know
4. Refused

Sequence guide: If J8=1 (did renovate their home), go to J10

J9 Do you intend to do so?
(Single response. Interviewer note: Renovating meaning upgrading or improving rooms or sections of the home)
1. Yes
2. No
3. Don’t know
4. Refused

J10 Did you move after you retired?
(Single response)
1. Yes
2. No
3. Don’t know
4. Refused

Sequence guide: If J10 = 1 (did move), go to J12

J11 Do you intend to do so?
(Single response)
1. Yes
2. No
3. Don’t know
4. Refused

Sequence guide: If J10 and J11 > 1 (no, dk or ref), go to J13

J12 Where did you (Do you intend to) move?
(Single response. Interviewer note: This may be a specific location, ie suburb/town/state, or it could be just a type of location eg near the sea, the country, inner city etc)
1. Enter location or type of location [text]
2. Don’t know
3. Refused
J13  When you thought about the environment you would live in during your retirement years ... how important was it to have access to a wide range of LEISURE ACTIVITIES? Would you say ...?
(Read options. Single response. 
*Interviewer note: Leisure activities refers to things like water sports, theatre, horse-riding, golf, concerts, walking trails, etc*)
1. Not at all
2. A little
3. Moderately
4. Very important
5. Extremely important
6. Don’t know
7. Refused
8. Did not think about it

J14  (When you thought about the environment you would live in during your retirement years) ... how important was living close to FRIENDS? Would you say ...
(Read options. Single response)
1. Not at all
2. A little
3. Moderately
4. Very important
5. Extremely important
6. Don’t know
7. Refused
8. Did not think about it

J15  (When you thought about the environment you would live in during your retirement years) ... how important was living close to FAMILY? Would you say ...
(Read options. Single response)
1. Not at all
2. A little
3. Moderately
4. Very important
5. Extremely important
6. Don’t know
7. Refused
8. Did not think about it

J16  (When you thought about the environment you would live in during your retirement years) ... how important was the quality, extent and nearness of HEALTH SERVICES? Would you say ...
(Read options. Single response)
1. Not at all
2. A little
3. Moderately
4. Very important
5. Extremely important
6. Don’t know
7. Refused
8. Did not think about it

J17  (When you thought about the environment you would live in during your retirement years) ... how important was the quality, extent and nearness of GENERAL SERVICES such as banks, transport, businesses and shops?
(Read options. Single response)
1. Not at all
2. A little
3. Moderately
4. Very important
5. Extremely important
6. Don’t know
7. Refused
8. Did not think about it

J18  Can you please tell me your MAIN source of income?
(Multiple response. 
*Interviewer note: can prompt from response list*)
1. Superannuation
2. Self-funded (through own savings or investments eg shares, rental properties)
3. Work
4. Government pension
5. Other (specify)
6. Don’t know
7. Refused
J19  Thinking about your money situation, would you say that you ...
(Read options.  (Single response)
1.  Have enough to live comfortably
2.  Have just enough
3.  Do not have enough to make ends meet
4.  Don’t know
5.  Refused

Sequence guide:  Go to K15

K.  BABY BOOMERS - those who don’t intend to retire, including those who are performing home duties or who are unable to work

K1  How much thought, if any, have you given to preparing for later life - what you’ll do, what you’ll live on, etc?  Would you say ...
(Read options.  Single response)
1.  Not much
2.  A little bit
3.  A moderate amount
4.  A good deal
5.  A lot
6.  Don’t know
7.  Refused

K2  Which of the following aspects of later life would you consider seeking advice on?
(Read options.  Multiple response)
1.  Financial
2.  Non-financial such as accommodation, social activities, volunteering etc
3.  Neither of these
4.  Don’t know
5.  Refused

Sequence guide:  If K2 = 1, 2 or 5 (is considering seeking advice or refuses), go to K4

K3  Can you please tell me the main reason for this ...
(Multiple response)
1.  I have already sought advice
2.  I don’t think there is much point in planning
3.  I am too busy
4.  I have everything under control
5.  Other (specify)
6.  Don’t know
7.  Refused
K4  Do any of the following make it difficult for you to think about and plan for later life?
(Read options. Multiple response)
1. Lack of time
2. Multiple commitments eg children, parents, work etc
3. Lack of motivation/energy
4. Don't know where to start
5. Insufficient money
6. Stress
7. Job insecurity
8. Housing insecurity
9. Ill health
10. Other (specify)
11. I'm not finding it difficult to think about and plan for my retirement
12. Don't know
13. Refused

K5  Do you intend to renovate your home as you grow older?
(Single response. Interviewer note: Renovating meaning upgrading or improving rooms or sections of the home)
1. Yes
2. No
3. Currently renovating
4. Don't know
5. Refused
6. Not applicable

K6  Do you intend to move in response to your changing needs or interests as you grow older?
1. Yes
2. Currently moving
3. No
4. Don't know
5. Refused

Sequence guide: If K6 > 2 (no, dk or ref), go to K8

K7  Where do you intend to move?
(Single response. Interviewer note: This may be a specific location, ie suburb/town/state, or it could be just a type of location eg near the sea, the country, inner city etc)
1. Enter location or type of location [text]
2. Don't know
3. Refused

K8  In thinking about the environment you will live in as you grow older ... how important is it to have access to a wide range of LEISURE ACTIVITIES? Would you say ...
(Read options. Single response. Interviewer note: Leisure activities refers to things like water sports, theatre, horse-riding, concerts, walking trails, etc)
1. Not at all
2. A little
3. Moderately
4. Very important
5. Extremely important
6. Don’t know
7. Refused
8. Has not thought about it

K9  (In thinking about the environment you will live in as you grow older) ... how important is living close to FRIENDS? Would you say ...
(Read options. Single response)
1. Not at all
2. A little
3. Moderately
4. Very important
5. Extremely important
6. Don’t know
7. Refused
8. Has not thought about it
K10  (In thinking about the environment you will live in as you grow older) ... how important is living close to FAMILY? Would you say ...?
(Read options. Single response)
1. Not at all
2. A little
3. Moderately
4. Very important
5. Extremely important
6. Don’t know
7. Refused
10. Has not thought about it

K11  (In thinking about the environment you will live in as you grow older) ... how important is the quality, extent and nearness of HEALTH SERVICES? Would you say ...?
(Read options. Single response)
1. Not at all
2. A little
3. Moderately
4. Very important
5. Extremely important
6. Don’t know
7. Refused
11. Has not thought about it

K12  (In thinking about the environment that you will live in as you grow older) ... how important is the quality, extent and nearness of GENERAL SERVICES such as banks, transport, businesses and shops?
(Read options. Single response)
1. Not at all
2. A little
3. Moderately
4. Very important
5. Extremely important
6. Don’t know
7. Refused
12. Has not thought about it

K13  What do you think will be your MAIN source of income in later life, that is after you have retired or after you have turned 65?
(Multiple response)
1. Superannuation
2. Self-funded (through own savings or investments eg shares, rental properties)
3. Work
4. Government pension
5. Other (specify)
6. Don’t know
7. Refused

K14  Thinking about your money situation in later life (after you turn 65), would you say that you ...?
(Read options. Single response)
1. Will have enough to live comfortably
2. Will have just enough
3. Won’t have enough to make ends meet
4. Don’t know
5. Refused

K15  (all to answer from here) How much influence do you think a person’s FAMILY MEDICAL HISTORY has on their ability to age well? Would you say ...?
(Read options. Single response)
1. None
2. A little
3. Neutral
4. A moderate amount
5. A lot
6. Don’t know
7. Refused

K16  How much influence do you think a person’s LIFESTYLE has on how well they age? Would you say ...?
(Read options. Single response. Interviewer note: Lifestyle relates to diet, exercise, stress, leisure time, etc)
1. None
2. A little
3. Neutral
4. A moderate amount
5. A lot
6. Don’t know
7. Refused
K17  How much influence do you think a person’s ATTITUDE has on how well they age? Would you say …?
(Read options. Single response)
1. None
2. A little
3. Neutral
4. A moderate amount
5. A lot
6. Don’t know
7. Refused

K18  Would you be willing to be contacted at a later date to possibly be interviewed by a researcher regarding baby boomers?
(Single response)
1. Yes
2. No

L. KESSLER PSYCHOLOGICAL DISTRESS SCALE (K10 - Health Status)

These last questions are about how you have been feeling in the last 4 weeks.

L1  In the past four weeks, about how often did you feel tired out for no good reason?
(Read Options. Single Response)
1. All of the time
2. Most of the time
3. Some of the time
4. A little of the time
5. None of the time
6. Don’t know
7. Refused

Sequence guide: If L2 = 5 (none), go to L4

L2  (In the past four weeks) … about how often did you feel nervous?
(Read Options. Single Response)
1. All of the time
2. Most of the time
3. Some of the time
4. A little of the time
5. None of the time
6. Don’t know
7. Refused

L3  (In the past four weeks) … about how often did you feel so nervous that nothing could calm you down?
(Read Options. Single Response)
1. All of the time
2. Most of the time
3. Some of the time
4. A little of the time
5. None of the time
6. Don’t know
7. Refused
L4  (In the past four weeks) ... about how often did you feel hopeless? 
(Read Options. Single Response) 
1. All of the time 
2. Most of the time 
3. Some of the time 
4. A little of the time 
5. None of the time 
6. Don’t know 
7. Refused

L5  (In the past four weeks) ... about how often did you feel restless or fidgety? 
(Read Options. Single Response) 
1. All of the time 
2. Most of the time 
3. Some of the time 
4. A little of the time 
5. None of the time 
6. Don’t know 
7. Refused

Sequence guide: If L5 = 5 (none), go to L7

L6  (In the past four weeks) ... about how often did you feel so restless you could not sit still? 
(Read Options. Single Response) 
1. All of the time 
2. Most of the time 
3. Some of the time 
4. A little of the time 
5. None of the time 
6. Don’t know 
7. Refused

L8  (In the past four weeks) ... about how often did you feel everything was an effort? 
(Read Options. Single Response) 
1. All of the time 
2. Most of the time 
3. Some of the time 
4. A little of the time 
5. None of the time 
6. Don’t know 
7. Refused

L9  (In the past four weeks) ... about how often did you feel so sad that nothing could cheer you up? 
(Read Options. Single Response) 
1. All of the time 
2. Most of the time 
3. Some of the time 
4. A little of the time 
5. None of the time 
6. Don’t know 
7. Refused

L10 (In the past four weeks) ... about how often did you feel worthless? 
(Read Options. Single Response) 
1. All of the time 
2. Most of the time 
3. Some of the time 
4. A little of the time 
5. None of the time 
6. Don’t know 
7. Refused

Sequence guide: If respondent is in not in Location 2 or 3, go to O. (END).
M. SOUTHERN CROSS CONTROLS (n=14)
(LOCATION 2 – WOMAC™ OSTEOARTHRITIS INDEX

(Interviewer note: if both knees are involved, then questions relate to the worst knee. See briefing notes re questions if necessary. If respondent says that they don’t do, or try to avoid an activity, prompt to respond if they hypothetically had to do it - briefing notes supplied)

M1 Think about the pain you felt in your knee during the last 2 weeks ... how much pain do you have ... WALKING ON A FLAT SURFACE?

(Read options. Single response. Interviewer note: Refers to walking on even surface eg sidewalk or in shops)
1. None
2. Mild
3. Moderate
4. Severe
5. Extreme
6. Don’t know / refused
7. I have had no pain at all with any activity in the last two weeks

Sequence guide: If M1 = 7 (no pain in past 2 weeks), go to M6

M2 [Think about the pain you felt in your knee during the last 2 weeks, how much pain do you have] ... GOING UP OR DOWN STAIRS?

(Read options if necessary. Single response. Interviewer note: If one way worse than other rate according to most extreme pain. If respondent avoids answering, ask how much pain if they hypothetically had to do it.)
1. None
2. Mild
3. Moderate
4. Severe
5. Extreme
6. Don’t know / refused

M3 [Think about the pain you felt in your knee during the last 2 weeks, how much pain do you have] ... AT NIGHT WHILE IN BED, ie pain that disturbs your sleep?

(Read options if necessary. Single response. Interviewer note: Refers to pain that disturbs sleep)
1. None
2. Mild
3. Moderate
4. Severe
5. Extreme
6. Don’t know / refused

M4 [Think about the pain you felt in your knee during the last 2 weeks, how much pain do you have] ... SITTING OR LYING?

(Read options if necessary. Single response. Interviewer note: Pain while sitting in chair or lying awake in bed)
1. None
2. Mild
3. Moderate
4. Severe
5. Extreme
6. Don’t know / refused

M5 [Think about the pain you felt in your knee during the last 2 weeks, how much pain do you have] ... STANDING UPRIGHT?

(Read options if necessary. Single response. Interviewer note: If get pain while in standing position but not moving)
1. None
2. Mild
3. Moderate
4. Severe
5. Extreme
6. Don’t know / refused
M6  Think about the stiffness (not pain) you felt in your knee during the last 2 weeks. Stiffness is a sensation of decrease ease in moving your joint. How severe is your stiffness AFTER FIRST AWAKENING in the morning?

(Read options if necessary. Single response)
1. None
2. Mild
3. Moderate
4. Severe
5. Extreme
6. Don't know / refused
7. I have had no stiffness at all with any activity in the past two weeks

Sequence guide:If M6 = 7 (no stiffness in past 2 weeks), go to M8

M7  How severe is your stiffness after sitting, lying or resting LATER IN THE DAY?

(Read options if necessary. Single response)
1. None
2. Mild
3. Moderate
4. Severe
5. Extreme
6. Don't know / refused

M8  Think about the difficulty you had in doing the following daily physical activities due to your knee during the last 2 weeks. By this, we mean your ability to move around and to look after yourself.

Thinking about your knees in the last 2 weeks, what degree of difficulty do you have ... DESCENDING STAIRS?

(Read options if necessary. Single response. Interviewer note: If respondent avoids, then asked how much pain if they hypothetically had to do it)
1. None
2. Mild
3. Moderate
4. Severe
5. Extreme
6. Don't know / refused

M9  [Thinking about your knees in the last 2 weeks, what degree of difficulty do you have] ... ASCENDING STAIRS?

(Read options if necessary. Single response. Interviewer note: If respondent avoids, then asked how much pain if they hypothetically had to do it)
1. None
2. Mild
3. Moderate
4. Severe
5. Extreme
6. Don't know / refused

M10 [Thinking about your knees in the last 2 weeks, what degree of difficulty do you have] ... RISING FROM SITTING?

(Read options if necessary. Single response)
1. None
2. Mild
3. Moderate
4. Severe
5. Extreme
6. Don't know / refused

M11 [Thinking about your knees in the last 2 weeks, what degree of difficulty do you have] ... STANDING?

(Read options if necessary. Single response. Interviewer note: Degree of difficulty remaining in a standing position)
1. None
2. Mild
3. Moderate
4. Severe
5. Extreme
6. Don't know / refused

M12 [Thinking about your knees in the last 2 weeks, what degree of difficulty do you have] ... BENDING TO THE FLOOR?

(Read options if necessary. Single response. Interviewer note: Can bend down using back or squat)
1. None
2. Mild
3. Moderate
4. Severe
5. Extreme
6. Don't know / refused
M13  [Thinking about your knees in the last 2
weeks, what degree of difficulty do you
have] ... WALKING ON A FLAT SURFACE?
(Read options if necessary. Single response.
Interviewer note: walk on even surface eg
sidewalk or in shops)
1. None
2. Mild
3. Moderate
4. Severe
5. Extreme
6. Don’t know / refused

M14  [Thinking about your knees in the last 2
weeks, what degree of difficulty do you
have] ... GETTING IN OR OUT OF THE CAR,
OR GETTING ON OR OFF A BUS?
(Read options if necessary. Single response.
Interviewer note: Can be either driver or
passenger; if degree differs between getting in or
out, or on or off bus, rate direction which
produces greatest difficulty)
1. None
2. Mild
3. Moderate
4. Severe
5. Extreme
6. Don’t know / refused

M15  [Thinking about your knees in the last 2
weeks, what degree of difficulty do you
have] ... GOING SHOPPING?
(Read options if necessary. Single response)
1. None
2. Mild
3. Moderate
4. Severe
5. Extreme
6. Don’t know / refused

M16  [Thinking about your knees in the last 2
weeks, what degree of difficulty do you
have] ... PUTTING ON YOUR SOCKS OR
STOCKINGS?
(Read options if necessary. Single response.
Interviewer note: If respondent avoids, then ask
how much pain if they hypothetically had to do it)
1. None
2. Mild
3. Moderate
4. Severe
5. Extreme
6. Don’t know / refused

M17  [Thinking about your knees in the last 2
weeks, what degree of difficulty do you
have] ... RISING FROM BED?
(Read options if necessary. Single response.
Interviewer note: Act of swinging legs over side of
bed and standing up)
1. None
2. Mild
3. Moderate
4. Severe
5. Extreme
6. Don’t know / refused

M18  [Thinking about your knees in the last 2
weeks, what degree of difficulty do you
have] ... TAKING OFF YOUR SOCKS OR
STOCKINGS?
(Read options if necessary. Single response)
1. None
2. Mild
3. Moderate
4. Severe
5. Extreme
6. Don’t know / refused
N. SOUTHERN CROSS CONTROLS (n=23)  
- LOCATION 3 - Shoulder Pain and Disability Index

(Interviewer note: if both shoulders are involved, the questions relate to the worst shoulder. If respondent says don’t do, or try to avoid, an activity prompt to respond if they hypothetically had to do it)

These next questions relate to your shoulder area.

N1  Thinking about THE LAST WEEK, please describe your pain on a scale from 0 to 10, where 0 is no pain and 10 is the worst pain imaginable. How severe is your pain ... AT ITS WORST?

(Single response. Interviewer note: repeat scale if necessary)

0. No pain at all
1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8
9. 9
10. The worst pain imaginable
11. Don’t know

Sequence guide: If N1 = 12 (no pain in last week), go to N6

N2  [Thinking about your shoulder in the last week, how severe is your pain ... on a scale from 0 to 10, where 0 is no pain and 10 is the worst pain imaginable] ... WHEN LYING ON THE INVOLVED SIDE?

(Single response. Interviewer note: repeat scale if necessary)

0. No pain at all
1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8
9. 9
10. The worst pain imaginable
11. Don’t know

N3  [Thinking about your shoulder in the last week, how severe is your pain ... on a scale from 0 to 10, where 0 is no pain and 10 is the worst pain imaginable] ... REACHING FOR SOMETHING ON A HIGH SHELF?

(Single response. Interviewer note: repeat scale if necessary. If respondent avoids, then asked how much pain if they hypothetically had to do it)

0. No pain at all
1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8
9. 9
10. The worst pain imaginable
11. Don’t know
N4  [Thinking about your shoulder in the last week, how severe is your pain ... on a scale from 0 to 10, where 0 is no pain and 10 is the worst pain imaginable] ... TOUCHING THE BACK OF YOUR NECK?
(Single response. Interviewer note: repeat scale if necessary)
0. No pain at all
1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8
9. 9
10. The worst pain imaginable
11. Don’t know

N5  [Thinking about your shoulder in the last week, how severe is your pain ... on a scale from 0 to 10, where 0 is no pain and 10 is the worst pain imaginable] ... PUSHING WITH THE INVOLVED ARM?
(Single response. Interviewer note: repeat scale if necessary. If respondent avoids, then asked how much pain if they hypothetically had to do it)
0. No pain at all
1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8
9. 9
10. The worst pain imaginable
11. Don’t know

N6  For these next questions, can you please describe your experience on a scale from 0 to 10, where 0 is no difficulty and 10 is so difficult it requires help. So thinking about your shoulder area in the last week, how much difficulty do you have ... WASHING YOUR HAIR?
(Single response. Interviewer note: repeat scale if necessary)
0. No difficulty
1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8
9. 9
10. So difficult it requires help
11. Don’t know

N7  [Thinking about your shoulder in the last week, how much difficulty do you have ... on a scale from 0 to 10, where 0 is no difficulty and 10 is so difficult it requires help] ... WASHING YOUR BACK?
(Single response. Interviewer note: repeat scale if necessary)
0. No difficulty
1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8
9. 9
10. So difficult it requires help
11. Don’t know
N8  [Thinking about your shoulder in the last week, how much difficulty do you have ... on a scale from 0 to 10, where 0 is no difficulty and 10 is so difficult it requires help] ... PUTTING ON AN UNDERSHIRT OR JUMPER?

(Single response.  Interviewer note: repeat scale if necessary)
0.  No difficulty
1.  1
2.  2
3.  3
4.  4
5.  5
6.  6
7.  7
8.  8
9.  9
10.  So difficult it requires help
11.  Don’t know

N9  [Thinking about your shoulder in the last week, how much difficulty do you have ... on a scale from 0 to 10, where 0 is no difficulty and 10 is so difficult it requires help] ... PUTTING ON A SHIRT THAT BUTTONS DOWN THE FRONT?

(Single response.  Interviewer note: repeat scale if necessary)
0.  No difficulty
1.  1
2.  2
3.  3
4.  4
5.  5
6.  6
7.  7
8.  8
9.  9
10.  So difficult it requires help
11.  Don’t know

N10 [Thinking about your shoulder in the last week, how much difficulty do you have ... on a scale from 0 to 10, where 0 is no difficulty and 10 is so difficult it requires help] ... PUTTING ON YOUR PANTS?

(Single response.  Interviewer note: repeat scale if necessary)
0.  No difficulty
1.  1
2.  2
3.  3
4.  4
5.  5
6.  6
7.  7
8.  8
9.  9
10.  So difficult it requires help
11.  Don’t know

N11 [Thinking about your shoulder in the last week, how much difficulty do you have ... on a scale from 0 to 10, where 0 is no difficulty and 10 is so difficult it requires help] ... PLACING AN OBJECT ON A HIGH SHELF?

(Single response.  Interviewer note: repeat scale if necessary)
0.  No difficulty
1.  1
2.  2
3.  3
4.  4
5.  5
6.  6
7.  7
8.  8
9.  9
10.  So difficult it requires help
11.  Don’t know
N12  [Thinking about your shoulder in the last week, how much difficulty do you have ... on a scale from 0 to 10, where 0 is no difficulty and 10 is so difficult it requires help] ... CARRYING A HEAVY OBJECT OF 10 POUNDS (4.5 kilograms)?

(Single response. Interviewer note: repeat scale if necessary. Suggest large bag of potatoes if participant has difficulty with quantity)

0. No difficulty
1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8
9. 9
10. So difficult it requires help
11. Don’t know

N13  [Thinking about your shoulder in the last week, how much difficulty do you have ... on a scale from 0 to 10, where 0 is no difficulty and 10 is so difficult it requires help] ... REMOVING SOMETHING FROM YOUR BACK POCKET?

(Single response. Interviewer note: repeat scale if necessary. For female participants who may not relate to this activity, suggest reaching around to the lower back)

0. No difficulty
1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8
9. 9
10. So difficult it requires help
11. Don’t know

Sequence guide: If already asked Error! Reference source not found., skip to next section go to O. (END).
O. QUESTIONNAIRE / CONTACT DETAILS

So just to finish off with some general questions ...

O1 Would you be willing to answer a general health and well-being questionnaire that we would send out to you?
(Single response)
1. Yes
2. No

Sequence guide: If O1 = 2 (no), go to O3

O2 Would you rather we sent it to you by post or by email?
(Single response)
1. Post
2. Email

O3 We would like to keep you up to date about the study by sending you our newsletter or invite you again to participate in any other health assessment. Would you mind if we contact you at a later date?
(Single response)
1. Yes, can contact
2. No, total withdrawal from the study

Sequence guide: If O2 = 1 (ongoing contact), go to O5

O4 Your involvement in the study has been most valuable in providing information that is helping to improve the health of the community. Thank you for your time today. END/TERMINATION OF INTERVIEW

O5 Do you have an email address so that we can send you updates about the study?
(Multiple response)
1. Enter HOME email address [text]
2. Enter WORK email address [text]
3. No email address

O6 Can I please confirm that your address is ...? (HEADER - current address)
(Multiple response)
1. Address confirmed
2. Change of address

Sequence guide: If O6 = 1 (address confirmed), go to O8

O7 Change of address
1. Enter address [text]
2. Enter postcode 5 _ _ _

O8 Our records show that you have a second address. Is this still ...? (HEADER - second address, ie if current address is postal - if address recorded, read out from header. If NO address recorded, continue) Is there another address we can record for you?
1. Enter address (change or new) [text]
2. Enter postcode 5 _ _ _

O9 What is the length of time you have spent at your current address?
(Single response)
1. Enter years [number - limit field to 99]
2. Enter months [number - limit field to 11]
3. Don’t know
4. Refused

Sequence guide: If O9 > 7 years (ie still has same address as at recruitment), go to O14

The following questions are in relation to your address at your first clinic appointment.
(Interviewer note: Phase 1A - in 2000; Phase 1B - in approx 2000/3).
Our records show your address at that time was:
(Interviewer note: HEADER - address at Stage 1 recruitment)

O10 What was the length of time you spent at this address?
(Interviewer note: PROMPT with year of Stage 1 appointment)
(Single response)
1. Enter years [number - limit field to 99]
2. Enter months [number - limit field to 11]
3. Don’t know
4. Refused
O11 How many times have you moved since the time of your first clinic appointment?
(Single response)
1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7 or more
8. Don’t know
9. Refused
10. None

Sequence guide: If O11 = 1, 2, 3; or 8 or 9 (small number of moves or dk/ref), go to O13

O12 What is the address you spent most time at?
(Single response)
1. Enter text
2. Don’t know
3. Refused

O13 Which suburb or town did you mostly live as a child (up to the age of 15 years)?
(Single response. Interviewer note: If respondent moved around a lot, please specify the place where the MAJORITY of time was spent. If respondent doesn’t know the suburb name, ask for the locality name)
1. Enter suburb/town/locality [text]
2. Enter state [text]
3. Don’t know
4. Refused

O14 Is this the best phone number to contact you, or is there another number (eg work, mobile) that might be more appropriate?
(Multiple Response. Interviewer note: confirm number and determine if the best number is a home, work or other phone number)
1. This is the best number
2. Home number
3. Work number
4. Mobile number
5. Other number

O15 Additional telephone numbers
(Multiple Response. Interviewer note: confirm number and determine if the best number is a home, work or other phone number)
1. This is the best number
2. Home number
3. Work number
4. Mobile number
5. Other number

P. END OF INTERVIEW (main)

That concludes the interview. Are there any comments that you would like to make about the study?
(Single Response)
1. Yes (specify)
2. No

On behalf of the North West Adelaide Health Study Team, I would like to thank you very much for helping us once again. We very much appreciate your ongoing participation in this study which makes a very important contribution to the awareness of health issues in the north western area of Adelaide. Depending on the sections you have answered, you may be sent more than one questionnaire. Thank you again for your time.

Interviewer note: Further information, phone 1800 635 352, or Internet http://www.nwadelaidehealthstudy.org

(IF NECESSARY) As some of the questions we have asked may have been distressing or caused some concern for some people, I would like to offer you a telephone number if you feel that you need to discuss some of these concerns with a qualified professional.

[Adult Mental Health Services - 24 hour crisis and emergency assistance - 131-465]

Q. END OF INTERVIEW (for people speaking on behalf of those participants who have either died or moved house)

Thank you for your time today.
This questionnaire focuses on the Baby Boomer generation (that is, those people born between January 1946 and December 1965). Together with the telephone interview in which you recently took part, it is an important part of a research project that is exploring what baby boomers think about their lives right now, as well as their views on later life and retirement.

Please read the following instructions before answering the questions.

1. Please complete all the questions as per the instructions by placing a tick in the box ☑ that most closely corresponds to your answer, or entering the requested information.

2. Your answers will remain strictly confidential. Results of the study may be published in a medical journal, but no information that may lead to the identification of any individual will be released.

3. This questionnaire should take approximately 10-15 minutes to complete.

4. If you have any problems with this questionnaire, please contact one of the Study Team:
   - Janet Grant on ☏ 8226 6054 or
   - Alicia Montgomerie on ☏ 8226 6493.

5. When you have completed the questionnaire, please return it to us in the reply-paid envelope supplied.

Thank you!
These first questions are about how you might be preparing for later life or retirement (e.g., after age 65).

In thinking about improving or maintaining your health and wellbeing as you grow older, have you made changes to any of the following within the past 5 years ...

A1  EXERCISE / PHYSICAL ACTIVITY (Please tick only ONE box for each question)

□ 1 Yes □ 2 No
If no, do you plan to do so in the future?
□ 1 Yes (Go to A2) ▼
□ 2 No
□ 3 Don’t know (Go to A2) ▼
If no, is this because ...
□ 1 It is too difficult to make changes
□ 2 I have always exercised regularly and do not need to make any changes
□ 3 Other (please specify)

A2  EATING HABITS (Please tick only ONE box for each question)

□ 1 Yes □ 2 No
If no, do you plan to do so in the future?
□ 1 Yes (Go to A3) ▼
□ 2 No
□ 3 Don’t know (Go to A3) ▼
If no, is this because ...
□ 1 It is too difficult to make changes
□ 2 I have always eaten a healthy diet and do not need to make any changes
□ 3 Other (please specify)

A3  SOCIAL LIFE (Please tick only ONE box for each question)

□ 1 Yes □ 2 No
If no, do you plan to do so in the future?
□ 1 Yes (Go to A4) ➔
□ 2 No
□ 3 Don’t know (Go to A4) ➔
If no, is this because ...
□ 1 My social life is satisfactory as it is
□ 2 It is too hard to change my social life
□ 3 Other (please specify)
In thinking about improving or maintaining your health and wellbeing as you grow older, have you made changes to any of the following within the past 5 years ...

**A4** LIVING ARRANGEMENTS (where or with whom you live)  
*Please tick only ONE box for each question*  
- □ 1 Yes  
- □ 2 No  

If no, do you plan to do so in the future?  
- □ 1 Yes (Go to A5)  
- □ 2 No  
- □ 3 Don’t know (Go to A5)  

If no, is this because ...  
- □ 1 You wish to continue with your current living arrangements  
- □ 2 Changing living arrangements is too complicated  
- □ 3 Other (please specify)  

**A5** WORK  
*Please tick only ONE box for each question*  
- □ 1 Yes  
- □ 2 No  

If no, do you plan to do so in the future?  
- □ 1 Yes (Go to A6)  
- □ 2 No  
- □ 3 Don’t know (Go to A6)  

If no, is this because ...  
- □ 1 You enjoy your work and wish to continue as long as you can  
- □ 2 You cannot afford to change your existing work commitments  
- □ 3 Other (please specify)  

**A6** LEISURE ACTIVITIES/HOBBIES  
*Please tick only ONE box for each question*  
- □ 1 Yes  
- □ 2 No  

If no, do you plan to do so in the future?  
- □ 1 Yes (Go to A7)  
- □ 2 No  
- □ 3 Don’t know (Go to A7)  

If no, is this because ...  
- □ 1 You are satisfied with your current leisure activities  
- □ 2 There is nothing that particularly interests you  
- □ 3 Other (please specify)
In thinking about improving or maintaining your health and wellbeing as you grow older, have you made changes to any of the following within the past 5 years …

A7  SAVINGS / INVESTMENT HABITS (Please tick only ONE box for each question)

☐ 1 Yes  ☐ 2 No

If no, do you plan to do so in the future?

☐ 1 Yes (Go to A8) ↓
☐ 2 No
☐ 3 Don’t know (Go to A8) ↓

If no, is this because …

☐ 1 Your current habits are satisfactory
☐ 2 You cannot afford to put aside more money
☐ 3 Other (please specify)

_________________________________________________________________

A8  Do any of the following make it difficult for you to make the lifestyle changes that will help you to achieve a healthy and balanced life as you grow older?

(Please tick ALL boxes that apply)

☐ 1 Lack of time
☐ 2 Multiple commitments (eg children, parents, work etc)
☐ 3 Lack of motivation/energy
☐ 4 Lack of knowledge
☐ 5 Insufficient money
☐ 6 Stress
☐ 7 Job insecurity
☐ 8 Housing insecurity
☐ 9 Other (specify)

☐ 10 Do not find it difficult to make lifestyle changes
☐ 11 Have not thought about it yet

_________________________________________________________________

A9  Do you believe that you are currently doing enough to maintain or improve your physical health?

(Please tick ONE box only)

☐ 1 Yes
☐ 2 No
☐ 3 Don’t know
## B. GENERAL HEALTH AND WELLBEING

The next questions are about living arrangements.

Listed below are six possible living arrangements for your later life/retirement (eg after age 65)? How much does each option appeal to you? Please tick the box that matches the description that best describes your views.

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Not at all</th>
<th>A little bit</th>
<th>Neutral</th>
<th>Quite a bit</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B1</strong></td>
<td>Living in own home by yourself or with partner (can be rented or owned)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B2</strong></td>
<td>Living in independent accommodation in a “lifestyle/resort” retirement community that offers a variety of health and leisure facilities, services and activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B3</strong></td>
<td>Living in independent accommodation in a traditional retirement village which has minimal facilities but provides access to low and high care nursing accommodation if required</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B4</strong></td>
<td>Living in independent accommodation on shared land that you and your friends have bought and developed to create your own unique retirement community</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B5</strong></td>
<td>Living in granny flat on child[ren]’s property</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B6</strong></td>
<td>Living with your child[ren]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### B7 Which of the following living arrangements would you MOST prefer as you grow older?

*(Please tick ONE box only)*

- [ ] 1 Living in own home by yourself or with partner
- [ ] 2 Living in independent accommodation in “lifestyle/resort” retirement community that offers a variety of health and leisure facilities services and activities
- [ ] 3 Living in independent accommodation in a traditional retirement village which has minimal facilities but provides access to low and high care nursing accommodation if required
- [ ] 4 Living in independent accommodation on shared land that you and your friends have brought and developed to create your own unique retirement community
- [ ] 5 Living with your children in their house
- [ ] 6 Living in granny flat on child(ren)’s property
- [ ] 7 Other (please specify)

### B8 How confident are you that you could achieve this?

*(Please tick ONE box only)*

- [ ] 1 Not at all
- [ ] 2 A little bit
- [ ] 3 Neutral
- [ ] 4 Quite a bit
- [ ] 5 Extremely

### B9 Which of the following do you think might prevent you from achieving this?

*(Please tick ALL that apply)*

- [ ] 1 Insufficient money
- [ ] 2 Lack of motivation
- [ ] 3 Not enough likeminded friends
- [ ] 4 Legal issues
- [ ] 5 A lack of suitable retirement accommodation
- [ ] 6 Planning policies and laws
- [ ] 7 Children unwilling
- [ ] 8 Children are not well enough off
- [ ] 9 Other (specify)
## C. AGEING AND LIFESTYLE

How important is each of the following in helping you to be healthy and happy in later life (eg after age 65)? Please tick the answer that best describes your views.

*(Please tick only ONE box for each statement)*

<table>
<thead>
<tr>
<th></th>
<th>Not Important</th>
<th>Slightly Important</th>
<th>Neutral</th>
<th>Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>Regular exercise</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
</tr>
<tr>
<td>C2</td>
<td>Good diet</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
</tr>
<tr>
<td>C3</td>
<td>Healthy weight</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
</tr>
<tr>
<td>C4</td>
<td>Good friends</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
</tr>
<tr>
<td>C5</td>
<td>Curiosity and a passion for life</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
</tr>
</tbody>
</table>

C6 Is there something particular in your life that currently gives it meaning?

*(Please tick ONE box only)*

- ☐ 1 No
- ☐ 2 Yes (please specify)

C7 Do you currently pursue any hobbies or interests?

*(Please tick ONE box only)*

- ☐ 1 No
- ☐ 2 Yes (Please Specify)

C8 In later life/retirement, is there something that you expect you are going to love doing but you don’t have time to do right now?

*(Please tick ONE box only)*

- ☐ 1 No
- ☐ 2 Yes (please specify)
### C9 Are there any hobbies or interests you would like to pursue when you retire or semi-retire? *(Please tick ONE box only)*

- [ ] 1. No
- [ ] 2. Yes (please specify)

### C10 How do you currently socialise? Is it through … *(Please tick ALL that apply)*

- [ ] 1. Clubs or associations (eg football, swimming, hobby based)
- [ ] 2. Community based organisations (eg friends of the art gallery, environment groups, Rotary, Lions etc)
- [ ] 3. Church groups
- [ ] 4. Other spiritual groups (eg meditation or yoga organisations)
- [ ] 5. Informal lunches, barbeques etc with a group of friends
- [ ] 6. Doing things with just one friend at a time (eg movies, bush walks)
- [ ] 7. Doing things with JUST your partner
- [ ] 8. Doing things WITH your partner and others
- [ ] 9. Doing things WITHOUT your partner but with others
- [ ] 10. Internet chat rooms and newsgroups, email
- [ ] 11. Family
- [ ] 12. I don’t socialise
- [ ] 13. Other (please specify)

### C11 Would you like to socialise more than you currently do? *(Please tick ONE box only)*

- [ ] 1. Yes
- [ ] 2. No
- [ ] 3. Not sure
<table>
<thead>
<tr>
<th><strong>C12</strong></th>
<th><strong>Do any of the following make it difficult for you to socialise?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>(Please tick ALL that apply)</em></td>
</tr>
<tr>
<td></td>
<td>□ 1 Lack of time</td>
</tr>
<tr>
<td></td>
<td>□ 2 Lack of opportunity (eg difficult to meet likeminded people)</td>
</tr>
<tr>
<td></td>
<td>□ 3 Being single</td>
</tr>
<tr>
<td></td>
<td>□ 4 Being divorced</td>
</tr>
<tr>
<td></td>
<td>□ 5 Being widowed</td>
</tr>
<tr>
<td></td>
<td>□ 6 Lack of money</td>
</tr>
<tr>
<td></td>
<td>□ 7 Feel uncomfortable in social situations</td>
</tr>
<tr>
<td></td>
<td>□ 8 Being married</td>
</tr>
<tr>
<td></td>
<td>□ 9 Transport</td>
</tr>
<tr>
<td></td>
<td>□ 10 Health problem/disability</td>
</tr>
<tr>
<td></td>
<td>□ 11 Other (please specify)</td>
</tr>
</tbody>
</table>

|         | □ 12 Don’t find it difficult to socialise                      |
How often do the following prevent you from getting regular physical activity?

*(Please tick only ONE box for each statement)*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very often</th>
</tr>
</thead>
<tbody>
<tr>
<td>C14</td>
<td>Self conscious about my looks when I exercise</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>C15</td>
<td>Lack of interest in exercise or physical activity</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>C16</td>
<td>Lack of self-discipline</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>C17</td>
<td>Lack of time</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>C18</td>
<td>Lack of energy</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>C19</td>
<td>Lack of company</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>C20</td>
<td>Lack of enjoyment from exercise or physical activity</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>C21</td>
<td>Discouragement</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>C22</td>
<td>Lack of access to equipment, facilities or space</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>C23</td>
<td>Lack of good weather</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>C24</td>
<td>Lack of skills</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>C25</td>
<td>Lack of knowledge on how to exercise</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>C26</td>
<td>Lack of good health</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>C27</td>
<td>Fear of injury</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>C28</td>
<td>Lack of money</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
</tbody>
</table>
What do you perceive to be the benefits of regular exercise? If I participate in regular physical activity or sports, then ...

*(Please tick one box for each statement)*

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Somewhat Disagree</th>
<th>Neutral</th>
<th>Somewhat Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>C29</td>
<td>I (will) feel less depressed and/or bored</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
</tr>
<tr>
<td>C30</td>
<td>I (will) improve my self-esteem</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
</tr>
<tr>
<td>C31</td>
<td>I (will) meet new people</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
</tr>
<tr>
<td>C32</td>
<td>I (will) lose weight or improve my shape</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
</tr>
<tr>
<td>C33</td>
<td>I (will) build up my muscle strength</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
</tr>
<tr>
<td>C34</td>
<td>I (will) feel less tension and stress</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
</tr>
<tr>
<td>C35</td>
<td>I (will) improve my health or reduce my risk of disease</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
</tr>
<tr>
<td>C36</td>
<td>I (will) do better at my job</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
</tr>
<tr>
<td>C37</td>
<td>I (will) feel more attractive</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
</tr>
<tr>
<td>C38</td>
<td>I (will) improve my heart and lung fitness</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
</tr>
</tbody>
</table>
### D. ADAPTIVE COPING STRATEGIES

We are very interested in learning about how you decide which things in life are important for you and how you go about accomplishing what you want in life. In answering this question, we would like you to think about your life overall, including how things are going, your goals - that is, both things that you want to improve, and things that you are satisfied with and want to maintain.

Below are 12 examples of two different ways people might behave in a particular situation. We would like you to choose the way you would be most likely to behave by ticking the box in either COLUMN A or COLUMN B for each item.

<table>
<thead>
<tr>
<th></th>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1</td>
<td>I concentrate all my energy on a few things.</td>
<td>I divide my energy among many things.</td>
</tr>
<tr>
<td>D2</td>
<td>I am always working on several goals at once</td>
<td>I always focus on the one most important goal at a time</td>
</tr>
<tr>
<td>D3</td>
<td>Even when I really consider what I want in life, I wait and see what happens instead of committing myself to just one or two particular goals.</td>
<td>When I think about what I want in life, I commit myself to one or two important goals.</td>
</tr>
<tr>
<td>D4</td>
<td>When things don’t go as well as before, I still try to keep all my goals</td>
<td>When things don’t go as well as before, I choose one or two important goals</td>
</tr>
<tr>
<td>D5</td>
<td>When I can’t do something important the way I did before, I look for a new goal.</td>
<td>When I can’t do something important the way I did before, I distribute my time and energy among many other things.</td>
</tr>
<tr>
<td>D6</td>
<td>When I can’t do something as well as I used to, I wait and see what comes.</td>
<td>When I can’t do something as well as I used to, I think about what exactly is important to me.</td>
</tr>
<tr>
<td>D7</td>
<td>I keep trying as many different possibilities as are necessary to succeed at my goal.</td>
<td>When I do not succeed right away at what I want to do, I don’t try other possibilities for very long.</td>
</tr>
<tr>
<td>D8</td>
<td>I make every effort to achieve a given goal.</td>
<td>I prefer to wait for a while and see if things will work out by themselves.</td>
</tr>
<tr>
<td>D9</td>
<td>When something matters to me, I devote myself fully and completely to it.</td>
<td>Even when something matters to me I still have a hard time devoting myself fully and completely to it.</td>
</tr>
<tr>
<td>D10</td>
<td>When things don’t go as well as they used to, I keep trying other ways of doing it until I can achieve the same result I used to.</td>
<td>When things don’t go as well as they used to, I accept it.</td>
</tr>
<tr>
<td>D11</td>
<td>When something in my life isn’t working as well as it used to, I decide what to do about it myself without involving other people.</td>
<td>When something in my life isn’t working as well as it used to, I ask others for advice or help.</td>
</tr>
<tr>
<td>D12</td>
<td>When it becomes harder for me to get the same results, I keep trying harder until I can do it as well as before.</td>
<td>When it becomes harder for me to get the same results as I used to, it is time to let go of that expectation.</td>
</tr>
</tbody>
</table>
E. CARE-GIVING COMMITMENTS

The following questions are for people who have responsibility for or who assist an elderly relative or friend who lives in their own home. Assistance means that you regularly do things for the person that they find difficult to do for themselves, and which need to be done in order to maintain their wellbeing and/or their ability to continue to live in their own home.

You might provide a little assistance or a lot. For instance, you might simply take your elderly relative or friend out shopping or socialising once a week, or you might help them to shower most days, or you might pay their bills and do their tax … or you might do all of these things.

If you have not provided assistance in the past, or are not currently providing assistance to an elderly relative or friend, please tick “No” in question E1 below to complete the questionnaire.

If you have provided assistance to an elderly relative or friend in the past, or are doing so now, please complete section E.

E1    Do you, or have you in the past, provided assistance to an elderly relative or friend?  
(Please tick ONE box only)
☐ 1 Yes
☐ 2 No... Thank you, you have now completed the questionnaire!

E2    Did you provide this assistance in the past or are you providing it at present?  
(Please tick ONE box only)
☐ 1 In the past
☐ 2 At present (Go to question E18)  

E3    Approximately how long ago did you provide this assistance?  
1 Enter number of YEARS ________  
2 OR enter number of MONTHS ________  
☐ 99 Don’t know

E4    Approximately how long did you provide assistance for?  
1 Enter number of YEARS ________  
2 OR enter number of MONTHS ________  
☐ 99 Don’t know

E5    The reason you ceased to provide assistance to your elderly relative or friend was because …  
(Please tick ONE box only)
☐ 1 They passed away
☐ 2 They transferred to a nursing home
☐ 3 They are being cared for by someone else
☐ 4 You were finding it difficult to cope
☐ 5 Other (please specify)  

E6    Did you attempt to obtain an aged care package or any other government-funded services to assist your elderly relative or friend to remain in their home?  
(Please tick ONE box only)
☐ 1 Yes
☐ 2 No (Go to question E12)
E7 Were you successful in obtaining an aged care package or other government-funded services to assist your elderly relative or friend to remain in their home?  
(Please tick ONE box only)  
☐ 1 Yes  
☐ 2 No (Go to question E11)  

E8 Approximately how many hours of government-funded services did they receive in their home on a weekly basis?  
1 Enter number of HOURS __________  
☐ 99 Don’t know  

E9 Were you satisfied with the number of hours of government-funded services that were made available?  
(Please tick ONE box only)  
☐ 1 Yes (Go to question E13)  
☐ 2 No  

E10 How did not getting enough hours of government-funded services affect your life?  
(Please tick ALL boxes that apply)  
☐ 1 Negative effect on health  
☐ 2 Increased stress  
☐ 3 Did not have time to look after yourself properly eg good diet, exercise  
☐ 4 Did not have time to keep up with friends  
☐ 5 Had to reduce work hours  
☐ 6 Had to give up work  
☐ 7 Financial hardship  
☐ 8 None of the above (On completion of this)  
☐ 9 Other (please specify) question Go to E13  

E11 What was the impact on your life of having to manage without support from government-funded services?  
(Please tick ALL boxes that apply)  
☐ 1 Negative effect on health  
☐ 2 Increased stress  
☐ 3 Did not have time to look after yourself properly eg good diet, exercise  
☐ 4 Did not have time to keep up with friends  
☐ 5 Had to reduce work hours  
☐ 6 Had to give up work  
☐ 7 Financial hardship  
☐ 8 None of the above (On completion of this)  
☐ 9 Other (please specify) question Go to E13  

E12 What were your reasons for not attempting to obtain services?  
(Please tick ALL boxes that apply)  
☐ 1 Elderly relative or friend was able to manage without services  
☐ 2 Too difficult to arrange services  
☐ 3 Didn’t have time to arrange services  
☐ 4 Elderly relative or friend refused services  
☐ 5 I was a full-time live in carer for my elderly relative/friend  
☐ 6 Other (please specify)
E13 Did any of the following make it difficult for you, or the person you assisted, to consider a nursing home as an acceptable accommodation option? 
(Please tick ALL boxes that apply)
- [ ] 1 They did not wish to live in a nursing home
- [ ] 2 It was my responsibility to care for them
- [ ] 3 I would have felt guilty
- [ ] 4 There were no places available
- [ ] 5 The places which were available were not suitable
- [ ] 6 I was not confident that a nursing home would provide good care
- [ ] 7 Financial considerations
- [ ] 8 None of the above
- [ ] 9 Other (please specify)

E14 At the time, did you feel that your elderly relative or friend would have been better off remaining in their own home or transferring to a nursing home? (Please tick ONE box only)
- [ ] 1 Own home (Go to question E16)
- [ ] 2 Nursing Home

E15 Why did you think they would have been better off in a nursing home? (Please tick ALL boxes that apply)
- [ ] 1 More social contact
- [ ] 2 More leisure opportunities
- [ ] 3 Safer environment than their own home
- [ ] 4 They would have received better care overall
- [ ] 5 I was unable to provide sufficient care
- [ ] 6 Other (please specify)

Thank you, you have now completed the questionnaire!

E16 Why did you think your elderly relative or friend was better off remaining in their own home? (Please tick ALL boxes that apply)
- [ ] 1 They had some independence
- [ ] 2 They could make their own decisions
- [ ] 3 The environment was familiar
- [ ] 4 They knew their way around their local community
- [ ] 5 Other (please specify)
E17  Under what conditions would you have considered recommending that your elderly relative or friend transfer to a nursing home?  
(Please tick ALL boxes that apply)  
[ ] 1. Significant memory loss  
[ ] 2. A diagnosis of dementia such as Alzheimer’s disease  
[ ] 3. Significant physical disability, eg loss of sight, poor mobility etc  
[ ] 4. Frequent falls  
[ ] 5. Death of partner/spouse  
[ ] 6. Significant social isolation  
[ ] 7. None of the above  
[ ] 8. Other (please specify)  

Thank you, you have now completed the questionnaire!

E18  How long have you been assisting your elderly relative or friend to remain in their home?  
1. Enter number of YEARS _________  
2. OR enter number of MONTHS _________  
[ ] 99. Don’t know

E19  Have you attempted to obtain an aged care package or any other government-funded service to assist your elderly relative or friend to remain in their home?  
(Please tick ONE box only)  
[ ] 1. Yes  
[ ] 2. No (Go to question E25)  

E20  Have you been successful in obtaining an aged care package or any other government-funded service to assist your elderly relative or friend to remain in their home?  
(Please tick ONE box only)  
[ ] 1. Yes  
[ ] 2. No (Go to question E24)  

E21  Approximately how many hours of government-funded services do they receive in their home on a weekly basis?  
1. Enter number of HOURS _________  
[ ] 99. Don’t know

E22  Are you satisfied with the number of hours of government-funded services that have been made available?  
(Please tick ONE box only)  
[ ] 1. Yes (question)  
[ ] 2. No

E23  How does not getting enough hours of government funded services affect your life?  
(Please tick ALL boxes that apply)  
[ ] 1. Negative effect on health  
[ ] 2. Increased stress  
[ ] 3. Do not have time to look after yourself properly eg good diet, exercise  
[ ] 4. Do not have time to keep up with friends  
[ ] 5. Have had to reduce work hours  
[ ] 6. Have had to give up work  
[ ] 7. Financial hardship  
[ ] 8. None of the above (On completion of this question Go to E26)  
[ ] 9. Other (please specify) question Go to E26

---

Appendix 2.8: TFU Survey 2 Postal/Online Questionnaire
E24 What is the impact on your life of having to manage without support from government funded services?

(Please tick ALL boxes that apply)

- □ 1 Negative effect on health
- □ 2 Increased stress
- □ 3 Do not have time to look after yourself properly eg good diet, exercise
- □ 4 Do not have time to keep up with friends
- □ 5 Have had to reduce work hours
- □ 6 Have had to give up work
- □ 7 Financial hardship
- □ 8 None of the above
- □ 9 Other (please specify)

(On completion of this question Go to E26)

E25 What are your reasons for not attempting to obtain services?

(Please tick ALL boxes that apply)

- □ 1 Elderly relative or friend can manage without services
- □ 2 Too difficult to arrange services
- □ 3 Don’t have time to arrange services
- □ 4 Elderly relative or friend refuses services
- □ 5 I am a full-time live in carer for my elderly relative/friend
- □ 6 Other (please specify)

E26 Do any of the following stop you from recommending that your elderly relative or friend consider moving to a nursing home?

(Please tick ALL boxes that apply)

- □ 1 They do not wish to live in a nursing home
- □ 2 It is my responsibility to care for them
- □ 3 I would feel guilty
- □ 4 There are no places available
- □ 5 The places which are available are not suitable
- □ 6 I am not confident that a nursing home would provide good care
- □ 7 Financial considerations
- □ 8 None of the above
- □ 9 Other (please specify)

E27 At present, do you feel that your elderly relative or friend would be better off remaining in their own home or transferring to a nursing home?

(Please tick ONE box only)

- □ 1 Own home
- □ 2 Nursing home
E28  Why do you think they would be better off in a nursing home?  
(Please tick ALL boxes that apply)

- 1 More social contact
- 2 More leisure opportunities
- 3 Safer environment than their own home
- 4 They would receive better care overall
- 5 I am unable to provide sufficient care
- 6 Other (please specify)

Thank you, you have now completed the questionnaire!

E29  Why do you think your elderly relative or friend is better off remaining in their own home?  
(Please tick ALL boxes that apply)

- 1 They can be independent
- 2 They can make their own decisions
- 3 They are in a familiar environment
- 4 They know their way around the local community
- 5 Other (please specify)

E30  Under what conditions do you think it would be advisable for your elderly relative or friend to transfer to a nursing home?  
(Please tick ALL boxes that apply)

- 1 Significant memory loss
- 2 A diagnosis of dementia such as Alzheimer’s disease
- 3 Significant physical disability eg loss of sight, poor mobility etc
- 4 Frequent falls
- 5 Death of partner/spouse
- 6 Significant social isolation
- 7 None of the above
- 8 Other (please specify)

Thank you very much for taking the time to complete this questionnaire.  
Please make sure that you have answered all the questions.  
We have enclosed a reply-paid envelope for the return of the completed questionnaire.

If you have any problems or questions in completing this questionnaire, please contact one of the Study Team:  
- Janet Grant on ☎ 8226 6054 or  
- Alicia Montgomerie on ☎ 8226 6493.
Appendix 2.9: Methods Used to Select Sub-groups

At-risk subgroups were defined based on the significant associations between a variety of socio-economic and health variables. The choice of variables for this analysis was informed by the literature on positive and successful ageing discussed in Chapter 3 and by the analysis of health and socio-economic data presented in chapter 6. Socio-economic variables included marital status, living arrangements, income, employment, retirement, government pension and housing tenure. Health variables included three or more risk factors, three or more chronic conditions, obesity, chronic lung disease, high blood pressure, metabolic syndrome, being sedentary, and three different measures of mental health, the CESD, GHQ and a self report measure. Initially, cross tabulations were run on data from Stage 2 (n=1179 clinic weight) collected in 2004-06 as this provided a larger sample than that available using the 2007 TFU Survey 2 (n=1058 weight TFU). However, given that many of the variables to be analysed for this component of the study were only available in the 2007 TFU Survey 2, a second set of cross tabulations were run using data from these surveys as well as data from Stage 2.

Significant associations between socio-economic and health variables were similar for both samples although there were more associations found in the Stage 2 sample, probably because of the larger sample size. Socio-economic variables which had significant associations with critical health variables are set out in Table 1. In addition to the presence of significant associations the choice of groups was also influenced by other factors such as when data was collected, the size of potential groups and the need to keep the analysis manageable by limiting the number of groups. Groups which stood out included those suffering from mild to severe depression based on a score of 16 or more on the CES-D scale, those on an income of less than $40,000 or less than $20,000, singles, those with an employment status of ‘unable to work’, the retired and those on a government pension. The ‘unable to work’ group was excluded on the basis of too few numbers (n=40). Although those on a government pension form an identifiable policy group and were clearly vulnerable they were excluded based on the fact that this data was collected in 2004-05 and respondents in this category may not have been on a pension when the 2007 data was collected. Given that much of the data used to analyse the self protection component was collected in 2007 this was deemed an important point. A decision was made to include singles, those on an income of less than $40,000, the
depressed, and those who had retired, as the at risk groups to be studied. Although those under $20,000 appeared to have more risk than those on an income of less than $40,000 greater statistical power was available by using the latter group. Preliminary analyses also showed that many of those at risk who would not be included as a specific group would, never-the-less, be members of one or more of the groups chosen for study. The planning, non-planning and retired groups were defined by a question in the 2007 TFU Survey 2 which asked respondents to identify whether they were thinking about or planning for retirement, not thinking about it or not planning to retire, or already retired.

**Significant Associations between Socio-economic and Health Variables**

<table>
<thead>
<tr>
<th>Group</th>
<th>Health Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income of less than</td>
<td>3 or more chronic conditions, 3 or more risk factors, obesity, depression, self reported mental health condition, GHQ, moderate chronic lung disease</td>
</tr>
<tr>
<td>$20,000</td>
<td></td>
</tr>
<tr>
<td>Income of less than</td>
<td>3 or more chronic conditions, 3 or more risk factors, depression, being sedentary</td>
</tr>
<tr>
<td>$40,000</td>
<td></td>
</tr>
<tr>
<td>Employment status of</td>
<td>3 or more chronic conditions, 3 or more risk factors, depression, self reported mental health condition, moderate chronic lung disease</td>
</tr>
<tr>
<td>‘unable to work’</td>
<td></td>
</tr>
<tr>
<td>Employment status of</td>
<td>Depression, severe chronic lung disease</td>
</tr>
<tr>
<td>unemployed</td>
<td></td>
</tr>
<tr>
<td>Marital status of never</td>
<td>3 or more risk factors, obesity, depression</td>
</tr>
<tr>
<td>married</td>
<td></td>
</tr>
<tr>
<td>Marital status of</td>
<td>3 or more chronic conditions, self reported mental health condition, moderate chronic lung disease</td>
</tr>
<tr>
<td>divorced/separated</td>
<td></td>
</tr>
<tr>
<td>Marital status of</td>
<td>3 or more risk factors, self reported mental health condition,</td>
</tr>
<tr>
<td>widowed</td>
<td></td>
</tr>
<tr>
<td>Related adults living</td>
<td>Severe chronic lung disease</td>
</tr>
<tr>
<td>together</td>
<td></td>
</tr>
<tr>
<td>Rental housing tenure</td>
<td>Depression, self reported mental health condition</td>
</tr>
<tr>
<td>The Retired</td>
<td>3 or more chronic conditions, obesity, depression, self reported mental health condition, severe chronic lung disease, high blood pressure</td>
</tr>
<tr>
<td>Pensioners</td>
<td>3 or more chronic conditions, 3 or more risk factors, obesity, depression, self reported mental health condition</td>
</tr>
<tr>
<td>Moderate to Severe Depression (CESD)</td>
<td>3 or more chronic conditions, 3 or more risk factors, self reported mental health condition, GHQ, severe chronic lung disease</td>
</tr>
</tbody>
</table>

### Appendix 2.10: TFU Survey 2 – Contributors to Survey Development

<table>
<thead>
<tr>
<th>Section</th>
<th>Section Heading</th>
<th>Researchers</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Introduction</td>
<td>Department of Health</td>
</tr>
<tr>
<td>B 1-20</td>
<td>Demographics</td>
<td>Three NOBLE PhD candidates including the author</td>
</tr>
<tr>
<td>C 1-6</td>
<td>Active Australia Physical Activity Questions</td>
<td>Department of Health</td>
</tr>
<tr>
<td>D 1-13</td>
<td>Life course perspective</td>
<td>NOBLE PhD Candidate D1-13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Author had input into D11-D13</td>
</tr>
<tr>
<td>E 1-6</td>
<td>Early Learning</td>
<td>NOBLE PhD Candidate</td>
</tr>
<tr>
<td>F 1-5</td>
<td>Neighbourhoods and Residential Migration</td>
<td>NOBLE PhD Candidate</td>
</tr>
<tr>
<td>G 1-16</td>
<td>Lifestyle/Nutrition</td>
<td>NOBLE Researcher G1-10, NOBLE PhD Candidate G11-12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Primary input from author G13-16</td>
</tr>
<tr>
<td>H 1-3</td>
<td>Health Related Questions</td>
<td>NOBLE PhD Candidate H1-H3</td>
</tr>
<tr>
<td>H4</td>
<td>Question to select out baby boomers from rest of population</td>
<td>Department of Health/Author</td>
</tr>
<tr>
<td>I, J, K</td>
<td>These sections answered only by Baby Boomers</td>
<td>The Author</td>
</tr>
<tr>
<td>I 1-17</td>
<td>Those thinking about or planning for retirement</td>
<td></td>
</tr>
<tr>
<td>J 1-19</td>
<td>Already Retired</td>
<td></td>
</tr>
<tr>
<td>K 1-14</td>
<td>Not thinking about or not intending to retire</td>
<td></td>
</tr>
<tr>
<td>K 15-17</td>
<td>All Baby Boomers – factors influencing ageing</td>
<td></td>
</tr>
</tbody>
</table>

Source: Author
## Appendix 2.11: Questions from CATI & Postal/Online Questionnaires Sourced from Other Surveys

<table>
<thead>
<tr>
<th>Survey</th>
<th>Question</th>
</tr>
</thead>
</table>
| PLACE – Physical Activity in Localities and Community Environments Survey 1 (2007) | **Sourced from Section W.**  
Questions 1-15. Barriers to Regular Physical Activity  
**Sourced from Section V.**  
Questions 1-10 Benefits of Regular Physical Activity  
TFU Survey 2, postal/online questionnaire. Used in Section C – Ageing and Lifestyle.  
Questions 14-28: How often do the following prevent you from getting regular physical activity? Please circle one answer for each item.  
Used in Section C – Ageing and Lifestyle.  
Questions 29-38: What do you perceive to be the benefits of regular exercise? If I participate in regular physical activity or sports, then… |
| Healthy Retirement Project (1997-1999) Survey questionnaire (nd).     | **Sourced from Question 15a.** Since completing your secondary education, have you had periods of time (5 years or more altogether) outside of the paid labour force?  
**Sourced from Question 15b (for those who answered yes).** If so, what were the main reasons for not working?  
**Sourced from Question 50.** Thinking about your money situation, would you say …  
**Sourced from Question 51.** How much thought have you given to retirement?  
**Sourced from Question 64.** If you had the choice, at what age would you like to retire?  
**TFU Survey 2, CATI questionnaire.** Used in Section B Demographics.  
Question B7. Since finishing school, have you ever had a period of 5 years or more outside of the paid work force? (single response)  
Question B8. What were your main reasons for not working? (multiple response)  
Sections I, J, and K Baby Boomers Only  
Question I16, J19 and K14. Thinking about your money situation in later life, (after you have turned 65) would you say that you …  
Questions I4, J2, K1. How much thought, if any, have you given to preparing for retirement – what you’ll do, what you’ll live on, etc? Would you say…?  
Question I2. At what age do you intend to retire? |
| Australian Longitudinal Study of Ageing (1992)                        | **Sourced from Question 56a About how often do you spend time with friends who do not live with you: that is, you go to see them or they come to visit you or you go out to do things together?**  
**Question 562** How many close friends do you have, that is people you feel at ease with and can talk to about private matters or can call on for help?  
**Question 563** Of these close friends how many live in Adelaide?  
**TFU Survey 2, CATI questionnaire.** Section G Lifestyle/Nutrition  
Question G14. How often do you spend time with friends who do not live with you: that is, you go to see them or they come to visit you or you go out to do things together? Would it be …  
Question G15. How many close friends do you have, that is people you feel at ease with and can talk to about private matters or can call on for help?  
Question 16. How many of these close friends live locally? |
## Appendix 2.12: Alignment of TFU Survey 2 Questions with Analysis in Chapters 5-9

### Chapter 5: Preparing for Later Life

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Survey Section</th>
<th>Focus of Analysis</th>
<th>Variables</th>
</tr>
</thead>
</table>
| CATI       | I.             | Key characteristics – retirement intentions | 1. Classifying stage of retirement  
2. Age intend to retire |
| CATI       | I, J^2, & K^3 | Preparation for later life | 14/12/K1 Thought given to retirement  
15/33/K2 Type of advice sought  
16/44/K3 Reason advice not sought |
| CATI       | K15-K17^4     | Resources - Beliefs about ageing | 15-17 Importance of medical history, lifestyle & attitude |
| Post/Online| C: Ageing & Lifestyle | Resources - Beliefs about ageing | 1-5 Importance of ex, diet, weight, friends and curiosity/passion for ageing well |
| Post/Online| A: General Health & Wellbeing | Resources - Beliefs v actions | 9 Doing enough to maintain physical health? |
| CATI       | H: Health Related Questions | Resources - Beliefs v actions | 2. Self perception of weight |
| Post/Online| A: General Health & Wellbeing | Reflexive planning | 1-6 Changes made to six lifestyle practices with a view to improving/maintaining health and wellbeing in later life |

### Chapter 6: Health

<table>
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<tr>
<th>Instrument</th>
<th>Survey Section</th>
<th>Focus of Analysis</th>
<th>Variables</th>
</tr>
</thead>
</table>
| G: Lifestyle/Nutrition | Health resources | 1. Food eaten at home  
2/3 Vegetable and fruit serves per day  
7. Glasses of water per day  
11. Hours sleep per day  
12. Easy to fit in physical activity |
| CATI       | H: Health Related Questions | Health Resources | 1. Self rated health  
3. Stress of every day commitments |
| Post/Online| A: General Health & Wellbeing | Constraints to health | 8. Factors which make it difficult to adopt healthy lifestyle  
14-28 Factors that prevent physical activity |
| Post/Online| C: Ageing & Lifestyle | Resource/constraint | 29-38 Perceived benefits of physical activity |

### Chapter 7: Active Engagement

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Survey Section</th>
<th>Focus of Analysis</th>
<th>Variables</th>
</tr>
</thead>
</table>
| CATI       | B: Demographics | Key characteristics – Productive Engagement | 5. Hours paid employment  
6. Occupation  
7. Time out of paid workforce  
8. Main reasons for not working  
11/12 Volunteering  
14-20 Care giving commitments |
| CATI       | I and J | Productive Resources | 12/31 Intend to work part-time/working part-time |
| CATI       | B: Demographics | Productive Resources | 4. Employment Status  
11/12 Volunteering |
| F: Neighbourhoods & Residential Migration | Social Resources | 2. Sense of community  
3. Reason for no sense of community |
| CATI       | B: Demographics | Social Resources | 1. Family Structure  
2. Marital Status  
3. Quality of relationship |
| CATI       | D: Life Course Perspective | Social Resources | 11/12 Children |

^1 Thinking about/planning retirement; ^2 Those who were retired; ^3 Not planning or not going to retire; ^4 All three groups.
## Appendix 2.12: Alignment of TFU Survey 2 Questions with Analysis in Chapters 5-9 (cont)

<table>
<thead>
<tr>
<th>Chapter 7: Active Engagement (cont)</th>
<th></th>
<th></th>
<th>Variables</th>
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<td><strong>Instrument</strong></td>
<td><strong>Survey Section</strong></td>
<td><strong>Focus of Analysis</strong></td>
<td></td>
</tr>
<tr>
<td>CATI</td>
<td>G Lifestyle/Nutrition</td>
<td>Social Resources</td>
<td>13 Friends know each other (not used)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>14 Time spent with friends</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>15 Number of close friends</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>16 Close friends living locally</td>
</tr>
<tr>
<td>Post/Online</td>
<td>C Ageing &amp; Lifestyle</td>
<td>Social Resources</td>
<td>10 How do you currently socialise?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>11 Would you like to socialise more?</td>
</tr>
<tr>
<td>Post/Online</td>
<td>C Ageing &amp; Lifestyle</td>
<td>Constraints to socialising</td>
<td>12 Factors that make it difficult to socialise</td>
</tr>
<tr>
<td>Post/Online</td>
<td>C Ageing &amp; Lifestyle</td>
<td>Meaningful Engagement Resources</td>
<td>1 Something that gives your life meaning</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 Current hobbies/interests</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 Something will love doing in later life</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4 Pursuit of hobbies/interests in later life</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Chapter 8: Housing</th>
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<th>Variables</th>
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<td><strong>Survey Section</strong></td>
<td><strong>Focus of Analysis</strong></td>
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<tr>
<td>CATI</td>
<td>F Neighbourhoods &amp; Residential Migration</td>
<td>Key characteristics Housing Resources</td>
<td>1 Choice of neighbourhood</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4 Type of housing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5 Tenure</td>
</tr>
<tr>
<td>CATI</td>
<td>I, J, &amp; K</td>
<td>Housing Intentions</td>
<td>I8-I10 / J8-J12 / K5-K7 Plans to renovate or move</td>
</tr>
<tr>
<td>CATI</td>
<td>I, J, &amp; K</td>
<td>Living Environment Expectations/resources</td>
<td>I11-I15 / J13-J17/ K8-K12 Factors considered in choosing retirement living environment</td>
</tr>
<tr>
<td>Post/Online</td>
<td>B General Health &amp; Wellbeing</td>
<td>Living Arrs: Resources</td>
<td>1-6 Attraction to various living arrangement</td>
</tr>
<tr>
<td>Post/Online</td>
<td>B General Health &amp; Wellbeing</td>
<td>Living Arrs: Resources</td>
<td>7 Preferred living arrangements</td>
</tr>
<tr>
<td>Post/Online</td>
<td>B Living Arrangements</td>
<td>Resources/Constraints</td>
<td>8 Confidence in achieving preferred arrangement</td>
</tr>
<tr>
<td>Post/Online</td>
<td>B Living Arrangements</td>
<td>Constraints to housing</td>
<td>9 Factors preventing preferred arrangement</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Chapter 9: Retirement Income</th>
<th></th>
<th></th>
<th>Variables</th>
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<tbody>
<tr>
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<td><strong>Survey Section</strong></td>
<td><strong>Focus of Analysis</strong></td>
<td></td>
</tr>
<tr>
<td>CATI</td>
<td>I, J, &amp; K</td>
<td>Financial Resources</td>
<td>I16/J18/K13 Expected source of retirement income</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I17/J19/K14 Expectations about financial situation in retirement</td>
</tr>
<tr>
<td>Post/Online</td>
<td>A General Health &amp; Wellbeing</td>
<td>Preparation</td>
<td>7 Changes made to Savings with a view to improving or maintaining health and wellbeing in later life</td>
</tr>
</tbody>
</table>

Source: Author
Dear «Title» «Surname»

Thank you for your continued participation in the North West Adelaide Health Study, which contributes valuable health information to the South Australian community.

We have much pleasure in enclosing an invitation to attend the launch of the North West Adelaide Health Study Stage 2 Report by Dr Tony Sherbon, Chief Executive of the South Australian Department of Health, on Monday, 4th June 2007, from 2.00 pm to 3.30 pm at the Adelaide Town Hall. We do hope you will be able to come!

If you have access to a computer, we are also seeking your help with a new research project. The enclosed information sheet entitled “The nature of people’s feelings towards different foods” explains a study that is investigating how people feel about various types of food, and to understand some of the specific food choices people make. This study involves completing one or two computer-administered tasks, followed by brief online questionnaires using your ID number «ID» on the following website: http://psychology.adelaide.edu.au/expts/foodstudy.html

We will also be calling you over the next few weeks to gain additional important health-related information via a 15 minute telephone interview, followed by a questionnaire that can be either posted out or emailed to you. Once again, there will be no cost to participants and your involvement is voluntary.

If you have any questions about any of studies mentioned above or about the launch, please call the Study Coordinator, Janet Grant, on (tel) 8226 6054 or (freecall) 1800 635 352.

We do appreciate the time and effort that you continue to give to us. We look forward to speaking with you in the telephone follow-up, and hope to see you at the launch.

Yours sincerely

Dr Richard Ruffin
Principal Investigator, North West Adelaide Health Study
Professor of Medicine, The University of Adelaide

encl
Appendix 2.14: Ethics Approval Letter for Data Collection for the NWAHS Telephone Follow Up Survey 2007

02 July 2007

Professor R Ruffin
Division of Medicine
The Queen Elizabeth Hospital

Dear Professor Ruffin

The Ethics of Human Research Committee Chairman has considered your request to administer a follow up survey to participants of the North Western Adelaide Health Study.

The following documents have been reviewed and approved:
- Introduction letter to participants from Professor Ruffin
- Telephone Questionnaire dated 19 June 2007

Approval Status: FINAL

*Please note the terms under which Ethical approval is granted:
1. Researchers are required to immediately report to the Ethics of Human Research Committee anything which might warrant review of ethical approval of the protocol, including:
   a) serious or unexpected adverse effects on participants;
   b) proposed changes in the protocol; and
   c) unforeseen events that might affect continued ethical acceptability of the project
2. Protocols are approved for up to twelve months only and a report is required at the end of the study or 12 month period. Extensions will not be granted without a report to the Committee.
3. Confidentiality of the research subjects shall be maintained at all times as required by law
4. All research subjects shall be provided with a Patient Information Sheet and Consent Form, unless otherwise approved by the Committee.
5. The Patient Information Sheet and Consent Form shall be printed on the relevant site letterhead stating the contact details for the researchers.
6. The Patient Information Sheet must state that the Executive Officer can be contacted for information regarding conduct of the study, policies and procedures, or if the participant wishes to make a confidential complaint.
7. A report and a copy of any published material should be forwarded to the Committee at the completion of the project.

Yours sincerely,

[Signature]

Dr Timothy Mathew
Chairman
Ethics of Human Research Committee (TQEH & LMH)
Appendix 2.15: Focus Group Materials – Powerpoint Presentation

Slide 1

Baby Boomers

- First generation to grow old in an ageing population
- Experienced significant and rapid social change over their life course
- Particularly large cohort

Percentage of Population over 65

<table>
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<tr>
<th>Year</th>
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<tr>
<td>2004</td>
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<tr>
<td>2021</td>
<td>19%</td>
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<td>2031</td>
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<td>2101</td>
<td>27.1%</td>
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Percentage of Population over 85

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<td>2021</td>
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<td>2051</td>
<td>6%–8%</td>
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<tr>
<td>2101</td>
<td>7%–10%</td>
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</tbody>
</table>

Slide 2
Slide 3

Physical & Cognitive Health and Function
Low level of risk for disease

Health and active engagement with life

Positive and supportive social relations

Productive &/or meaningful activity

Slide 4

Preparing for Later Life

Why not call it “Planning for Retirement?”

Preparing means to strategically position yourself – not to just make financial plans – it may be something you do unconsciously but not everyone does it.
Appendix 2.16: Draft Email Invitation and Information Sheet

Draft Email

From: jennifer.buckley@adelaide.edu.au
Date: 03/16/07 11:45:18
To:
Subject: Focus Group on Baby Boomers

Dear …………….

……………. has recently invited you to participate in a focus group on baby boomers that I am running as part of my PhD research. Please find attached an information sheet which includes a brief summary of the research and confirmation of the time, date and venue for the focus group. If you have any queries or are unable to attend I can be contacted on 0434 150 916. I very much appreciate your involvement and look forward to meeting you on Tuesday.

Cheers

Jennifer Buckley
Department
The University of Adelaide, AUSTRALIA 5005
Ph    : +61 8 8303 6415
Fax   : +61 8 8303 3772
e-mail: jennifer.buckley@adelaide.edu.au
Ageing in the 21\textsuperscript{st} Century – Are Baby Boomers Prepared?

Date: Tuesday, 20 March, 2007

Time: 5:30pm to 7:30pm

Venue: Lizard Drinking Pty Ltd
24 Market Street
Adelaide

Catered: Light refreshments will be provided.

Summary of Research

The primary aim of this research is to examine the extent to which baby boomers are likely to experience a positive ageing process into their 80s and to identify the factors that either facilitate or constrain their capacity to adopt behaviours that will contribute to this outcome. Current debates focus largely on the challenges posed by population ageing and the wave effects created by the baby boomer cohort. Less visible are debates about the diverse needs of individuals within this cohort or of how social change will create quite different needs and expectations from those of previous generations. Equally, strategies on ageing frequently fail to take into account how actions in midlife feed into outcomes for those 65 and over. Given longer life expectancies, increased uncertainty, and the emphasis on self responsibility that is occurring in tandem with reduced state involvement, it is essential to examine how people and governments can more effectively prepare for later life from mid life onwards. This research will discuss changes to the context in which ageing now occurs, identify the needs of different subgroups of baby boomers, identify barriers to a positive ageing process and flag areas in which education and services intervention may be required.

The methodology for the research consists of the analysis of an existing database of baby boomers, the administering of a questionnaire to members of this database and the gathering of more detailed information through focus groups and semi-structured interviews. The material that I gather from this focus group will help me to refine my questionnaire and, together with other focus groups and interviews, will provide detail that is not readily available from database material.
APPENDIX 3

Tables Relating to Chapter 5
## Appendix 3.1: Socio-economic Characteristics by Cohort and by Gender

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Source: NWAHS Stage 2, 2004-06
## Appendix 3.2: Socio-economic Characteristics by Gender within Each Cohort

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<td>UK &amp; Ireland</td>
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Source: NWAHS Stage 2, 2004-06
### Appendix 3.3: Socio-economic Characteristics by Cohort within Each Gender

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Source: NWAHS Stage 2, 2004-06
APPENDIX 4

Material Relating to Chapter 6 and Chapter 7
APPENDIX 4.1

Publication

‘Baby Boomers Obesity and Social Change’
*Obesity Research & Clinical Practice, v.2 (2), pp. 73-78*, July 2008

NOTE: This publication is included on pages 402-411 of the print copy of the thesis held in the University of Adelaide Library.

It is also available online to authorised users at:

http://dx.doi.org/10.1016/j.orcp.2008.04.002
Appendix 4.2: Clinical Parameters of Variables Used in the Analysis of Chronic Conditions and Risk Factors

Chronic Conditions

Clinically assessed chronic conditions used in the analysis included: diabetes, stage 3 and 5 kidney disease, osteoporosis, and asthma. Diabetes prevalence was based on those who had a fasting plasma glucose level of 7.0mmol/L or self-report (doctor confirmed). Chronic kidney disease was defined as Glomerular Filtration Rate (GFR) less than 60 mL/minute/1.73m² with three stages being specified as follows: stage 1 or 2 (GFR>= 60mL/min/1.73m2), stage 3 (GFR>= 30 and < 60mL/min/1.73m2) and stage 5 (GFR<15 mL/min/1.73m2). No baby boomers in this sample had stage 4 kidney disease. The prevalence of osteoporosis and osteopenia, in those 50 and over, was clinically determined based on results from the Dual Energy X-ray Absorptiometry (DEXA) scan. Of the 409 respondents who participated in the DEXA scan only four of these were drawn from the 1956-65 cohort none of whom were diagnosed with either osteopenia or osteoporosis. Asthma was defined as either doctor confirmed or those who had at least a 12% increase in FEV (forced expiratory volume in one second) from pre-Ventolin to post-Ventolin if their absolute difference in FEV was greater than 200ml or they had an absolute change in FEV of greater than or equal to 400ml.

Self-reported but doctor confirmed chronic conditions used in the analysis included arthritis, cardiovascular disease (heart attack, angina, stroke, and transient ischaemic attack mini-stroke), asthma, chronic obstructive pulmonary disorder (COPD) and self reported osteoporosis. Initially, three measures were used in relation to mental illness and psychological wellbeing including self reported mental health condition, the Centre for Epidemiologic Depression Scale (CES-D) and the General Health Questionnaire short form (GHQ12). Self-reported mental illness was derived from questions in the Stage 2 (CATI) interview which asked respondents if they had been told by a doctor in the last twelve months that they had any of the following: anxiety, depression, a stress related problem, or any other mental health problem. The CES-D and GHQ12 screening instruments were used in the Stage 2 self-administered questionnaire. Although data was analysed on all three measures, the GHQ12 is the instrument used in the summary graphs and the classification of mild to high disturbance was used to denote a chronic condition.
Risk Factors

Clinical risk factor data included overweight and obesity (BMI), abdominal obesity (waist hip ratio), high cholesterol, high blood pressure and impaired fasting glucose (IFG). Overweight and obesity were measured and defined according to the WHO standards in which underweight is designated as BMI <18.50, normal as BMI 18.50-24.99, pre-obese (overweight) as BMI 25.00-29.999, class one obesity as BMI => 30, class 2 obesity as BMI 35.00-39.99, and class 3 obesity as BMI 40.00+. All classifications of weight were examined in the initial analyses of risk factors but when creating a multiple risk factor variable only obesity (BMI=>30) was used. The waist hip ratio (WHR) measurement was used to identify abdominal obesity as it provides a measure of fat distribution (Gill, Chittleborough et al, 2003). Men with a ratio greater than 1.0, and women with a ratio greater than 0.85, were classified as having abdominal obesity. High cholesterol was assessed based on total blood cholesterol levels with high cholesterol being defined as total blood cholesterol >= 5.5 mmol/L. High blood pressure was defined as systolic blood pressure greater than or equal to 140 mmHg and diastolic blood pressure greater than or equal to 90 mmHg. Impaired fasting glucose was defined as those with a fasting plasma glucose of >=6.0 mmol/L and <7.0 mmol/L.

Self-reported risk factors were calculated using data from the Stage 2 self-administered questionnaire and included smoking status, physical activity, and alcohol use. Smoking status was reported as non-smoker, current or ex-smoker. Alcohol risk was determined by asking participants how often they drank and, if they drank, on a day when they drank alcohol, how many drinks they usually had (Population Research & Outcome Studies Unit 2007). These questions and the formulae allocating responses into the risk categories were drawn from the 1989 National Heart Foundation Risk Factor Prevalence study (Grant, Chittleborough et al. 2005). Levels of physical activity were derived from the same questions as those used in the NHS in 2001 and 2005 and related to how much walking, moderate, and vigorous activity was undertaken over the last two weeks (Population Research & Outcome Studies Unit 2007). Responses were classified into four activity levels similar to those used in the NHS and included sedentary, low, moderate and high exercise levels (Population Research & Outcome Studies Unit 2007).
## Appendix 4.3: Chronic Conditions by Cohort

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<th>Variable</th>
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<th>1956-65 Cohort %</th>
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<th>ORs</th>
<th>All Baby Boomers %</th>
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Source: NWAHS Stage 2, 2004-06
## Appendix 4.4: Chronic Conditions by Gender – 1946-1965

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Source: NWAHS Stage 2, 2004-06
Appendix 4.5: Proportion of Each Chronic Condition Held by Males and Females (Row Variable)

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</tr>
<tr>
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<td>.109</td>
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<tr>
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<td>593</td>
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<td>593</td>
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</tr>
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Source: NWAHS Stage 2, 2004-06
### Appendix 4.6: Chronic Conditions by Gender within Each Cohort

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<td></td>
<td>M %</td>
<td>F %</td>
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<td>299</td>
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<tr>
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Source: NWAHS Stage 2, 2004-06
### Appendix 4.7: Risk Factors by Cohort

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<tr>
<td>&gt;=5.5 mmol/L</td>
<td>53.3</td>
<td>46.5</td>
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<td>.76</td>
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<tr>
<td><strong>IFG/Diabetes</strong></td>
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<td></td>
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<td>1.0</td>
<td>91.8</td>
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<td>.71</td>
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Source: NWAHS Stage 2, 2004-06
### Appendix 4.8: Proportion of Each Risk Factor Held by Each Cohort (Row Variable)

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<th>1946-55 %</th>
<th>1956-65 %</th>
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<th>P Value</th>
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<td>Smoking</td>
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<tr>
<td>Ex or non-smoker</td>
<td>49.2</td>
<td>50.8</td>
<td>911</td>
<td>.001</td>
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<tr>
<td>Current smoker</td>
<td>38.0</td>
<td>62.0</td>
<td>260</td>
<td></td>
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<td>Total</td>
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<tr>
<td>Alcohol</td>
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<td>.245</td>
</tr>
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<td>No to low risk</td>
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<td>1049</td>
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<tr>
<td>Intermediate/high</td>
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<td>59.1</td>
<td>79</td>
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<td>Total</td>
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<tr>
<td>High Waist Hip Ratio</td>
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<td>.000</td>
</tr>
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<td>No</td>
<td>43.6</td>
<td>56.4</td>
<td>863</td>
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<td>Yes</td>
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<tr>
<td>Total</td>
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<tr>
<td>High Blood Pressure</td>
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<td></td>
<td>.000</td>
</tr>
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<td>Does not have HBP</td>
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<td>Total</td>
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</tr>
<tr>
<td>High Cholesterol</td>
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<td>.019</td>
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<tr>
<td>&lt;5.5 mmol/L</td>
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<td>56.5</td>
<td>591</td>
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<td>&gt;=5.5 mmol/L</td>
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<td>Total</td>
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<tr>
<td>Obesity</td>
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<td>BMI &lt;30</td>
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<td>BMI &gt;30</td>
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Source: NWAHS Stage 2, 2004-06
Appendix 4.9: Risk Factors by Gender within Each Cohort

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<th></th>
<th></th>
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<tbody>
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<td>M %</td>
<td>F %</td>
<td>P value</td>
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<td></td>
<td></td>
<td>M %</td>
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<tr>
<td>Non-smoker</td>
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<td>Moderate /High</td>
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<td>Low/Sedentary</td>
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<td>Non drinker/no/low risk</td>
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<td>96.6</td>
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<td>Obesity/Overweight</td>
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<td>Underweight/normal bmi &lt;25</td>
<td>15.6</td>
<td>28.1</td>
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<td>20.6</td>
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<td>37.1</td>
<td>.000</td>
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<td>Obesity/Overweight - detail</td>
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<td>U/weight/normal(18.50-24.99)</td>
<td>15.6</td>
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<td>Pre-obese (25.00-29.99)</td>
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<td>37.1</td>
<td>.000</td>
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<td>High Blood Pressure</td>
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</tr>
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<td>Does not have HBP</td>
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<td>72.4</td>
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<td>HBP – Sys &gt;= 140;</td>
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<td>13.5</td>
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<td>.60</td>
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<td>Dias=&gt;90</td>
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<td>Systolic only &gt;=140</td>
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<td>7.2</td>
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<td>Total</td>
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<td>High Cholesterol</td>
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<tr>
<td>&lt;5.5 mmol/L</td>
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<td>40.8</td>
<td></td>
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Source: NWAHS Stage 2, 2004-06
Appendix 4.10: SF-36 Summary Scores for COPD – 1946-55 and 1956-65 Cohorts

SF-36 Summary Scores for COPD – 1946-55 Cohort

Source: NWAHS Stage 2

SF-36 Summary Scores for COPD – 1956-65 Cohort

Source: NWAHS Stage 2
APPENDIX 4.11

Submitted for Publication

‘The Baby Boomer Population – Their Changing Health and Health Risk’

(Buckley, J., Tucker, G., Hugo, G, Wittert, G, Adams, R.J., Wilson, D.)
**Background:** The baby boomer population are an important target group for governments in terms of extending working life.

**Objective:** To examine the changing health status of the South Australian baby boomer population sub-groups over time.

**Methods:** A representative population cohort study of the baby boomer cohort over a four-year period.

**Results:** A number of health and risk factor changes were observed for both older and younger sub-cohorts. Changes in the SF-36 PCS were observed in the employed, those with no lung disease symptoms, those with a diagnosed mental health problem, the sedentary, those whose BMI increased. Changes in the MCS were observed for those with no lung disease symptoms, the unemployed, those with a mental health problem, the sedentary, those on home duties.

**Conclusions:** The current and changing health status of this working population does not suggest that they will easily adapt to the demands of an extended working life.
INTRODUCTION

The structure of Australia"s population, like many other OECD countries\(^1\), is shifting from one that is demographically young to one in which there is a higher percentage of older people. Although the high fertility rates, which produced the baby boom actually delayed population ageing, the entry of this cohort into older age is expected to increase Australia"s aged community from 13% of the population in 2010 to 23% by 2050\(^2\). It has been predicted that population ageing will produce increasing fiscal pressure\(^2-3\), with the Productivity Commission projecting a fiscal gap of around 6.4 per cent of GDP by 2045\(^3\). This will be driven by two phenomena: a reduction in the ability to generate revenue; and increasing pressure on government spending\(^2\). The major policy response to the first of these phenomena have targeted later retirement and extended working life. This will, however, depend on the health and physical ability of baby boomers to work beyond current retirement age. Furthermore, health and well being in this cohort will also impact on the government spending side of the equation as health and aged care account for much of the observed rise in government spending in the last four decades\(^2\). In essence the health status of our aging population and how this changes is critical information for government policy formulation.

Looking to the future, the Intergenerational Report identifies that government health spending in Australia is expected to grow from 4.0% of GDP in 2009-10 to 7.1% of GDP by 2049-502. Historically, the main drivers for increased health expenditure have been non-demographic factors such as the increasing utilisation of services at any age and the growth of expensive medical technologies and pharmaceuticals\(^3\). As the population ages further, even though disability rates remain constant, there will be a significant growth in the numbers of older people with disability. This means that there will be an increased demand for the more expensive medical technologies that allow chronic conditions to be
managed so they are less disabling. In addition, it has been shown that public expenditure on older people is around three times higher per head than expenditure on the young, so this too will blow out costs. These factors are driving the economic policy of extending working, however, economic policy on this issue cannot be developed out of context with health trends of those approaching retirement age and a better understanding of baby boomer health trends. If the government’s policy of keeping older people in the workforce for longer, or encouraging people to return to work, is to be successful then each of these policies depend on intelligence of health trends. Successfully extending working life is as much a health issue as an economic or legislative issue.

The goal of the recently released Australian National Preventative Health Strategy is to make Australia the healthiest nation by 2020 and to “minimise the impending overload on the health and hospital system”. The achievement of this ambitious goal will be largely determined by the current health trajectories of the baby boomer population. Currently, there is variable research indicating the direction of health trajectories. This population cohort study begins to address the question by examining changes to health status in baby boomers over a median time of 4 years.

The life expectancy of the Australian population and particularly the baby boomer population will continue to increase. Longevity and demand will be the future pressure factors on the health budget, hence it is important to assess whether longevity in the baby boomer cohort is likely to be accompanied by good health as this would facilitate extended workforce participation and at the same time take some pressure off health service demand.

METHODS
The Sample

The North West Adelaide Health Cohort Study (NWAHS) of people aged 18 years or older and the methods of selection have been described previously\textsuperscript{7}. Persons aged $\geq 18$ years from households selected at random from the electronic white pages directory were eligible. In 2000-2002, respondents ($n=4060$) completed interview surveys and underwent clinical assessments (stage 1). Clinical follow-up visits occurred between 2005 and 2007 (stage 2-a median of four years follow up) in $n=3175$ (78%). The study was approved by institutional ethics committees of the North West Adelaide Health Service.

Biomedical Assessment

Medical assessment of participants included measurements of height (to the nearest 0.5 cm using a stadiometer) and weight (to the nearest 0.1 kg in light clothing and without shoes using standard digital scales). Body mass index (BMI) ($\text{kg/m}^2$) was categorised: $> 25.0$ as overweight and $\geq 30$ as obese.

A fasting blood sample of 10ml was taken to measure total cholesterol, triglyceride, high density lipoprotein (HDL) and low density lipoprotein (LDL). Blood pressure was obtained using a calibrated sphygmomanometer on the average of two recorded measures. Elevated cholesterol was determined if total cholesterol was $\geq 5.5$mmols/l; elevated blood pressure was determined by $\geq 90$mmHg diastolic or $\geq 140$ mmHg systolic, or treatment; diabetes was determined by a fasting plasma glucose $\geq 7$ mmol/l or a prior doctor diagnosis of diabetes.

Respiratory symptoms were assessed with the Chronic Lung Disease (CLD) Index\textsuperscript{8} and spirometry. The CLD is a six-item questionnaire, with sub-scales relating to the frequency/intensity of dyspnoea and wheeze, frequency of coughing and volume of
sputum production and has been validated in Australian populations\(^9\). Post-bronchodilator spirometry (Microlab 3300 spirometer, Micro Medical LTD, Kent, UK), was conducted according to American Thoracic Society criteria. People with reversibility of airways obstruction were identified by a 15% increase in FEV1 following administration of 400ug of a short acting bronchodilator (salbutamol), or those who had at least a 12% increase in FEV1 following short acting bronchodilator if the absolute difference in FEV1 was \(\geq 200\)ml. Asthma was identified by current self-reported physician-diagnosed asthma or demonstration of a significant bronchodilator response of at least 12% of baseline FEV1. Airways obstruction, consistent with COPD, was determined by the FEV1/FVC ratio of <70%.

Questionnaire data were obtained on previous doctor diagnosis of heart disease, angina and stroke; previous doctor diagnosis of a mental health problem (anxiety, depression, stress, any other mental health problem); health related quality of life (the SF-36 Health Status questionnaire\(^{10}\)); alcohol consumption; smoking history; exercise patterns (used in National Health Surveys\(^{11}\)), and; demographic details (including marital status, employment status, income, and education).

**Statistical Methods**

In this study we are assessing first, the changes in chronic health conditions and risk factors over time. We then assess how these changes are associated with change over time in summary health status variables (PCS & MCS) over the same period, using panel data analysis. Panel data analyses are regression analyses which model both spatial and temporal dimensions of a problem. A key feature of panel data analyses is that it allows us to account for gross change in the variables. Gross change in a variable takes into account the fact that some people change positively while others
change negatively or do not change at all, over time. In the analyses we used deviation effects coding to account for these changes. The data compares all categories of a variable with the average for those categories, so over time variable categories will change positively, negatively, or not at all. The panel data approach allows us to assess these changes for both the dependent variable and independent variables, simultaneously. If the analyses also show that change in the dependent variables (PCS, MCS) is associated with changes in the independent variables then this provides more direct evidence of causality than is possible to deduce from static cross sectional designs or other cohort designs in which net change i.e. overall change alone is measured.\textsuperscript{12}

To determine the most appropriate panel method a Hausman test was performed on unweighted data. The fixed effects model was selected, and since case weights can be applied in a fixed effects model, the analysis subsequently conducted was weighted.

Following bivariate analyses of data and assessment of health changes between Stage 1 and Stage 2, statistical models were planned to assess which variables were associated with change over time in overall health, as measured by change in the physical components summary (PCS) and mental components summary (MCS) scales of the SF-36. The scores for the PCS and MCS were calculated using coefficients based on Australian population data collected in the ABS 1995 National Health Survey using structural equation modelling. In a fixed effects model we deduct the average over time for each individual from each observation and use these “personal mean centred” variables as input to an ordinary least squares regression. If a variable shows no variation, or if a unit (usually a person) shows no variation it is dropped from the analysis.
The predictor variables which achieved significance levels of p<0.25 in bivariate tests were retained as candidate predictor variables for the statistical models. The self-report variables included in the analyses were: income levels; country of birth (Australia, UK or Ireland, Europe, Asia, Other, not stated); social security pension; work status (full time employed, part time/casual, unemployed, home duties retired, student/other, not stated); education level (secondary, trade/apprentice, certificate/diploma, degree or higher, other, don’t know, not stated); marital status (married/partner, separated/divorced, widowed, never married); exercise level (sedentary, low exercise, moderate exercise, high exercise); smoking status (non-smoker, ex-smoker, light smoker, moderate smoker, heavy smoker); lung disease symptoms; alcohol risk (non drinker, no risk, low risk, intermediate risk, high risk). The clinically assessed variables were: chronic lung disease symptoms (mild, moderate, severe); doctor diagnosed cardio vascular disease (no, yes); diabetes (no, yes); doctor diagnosed mental health problem (no, yes); waist hip ratio; body mass index; high blood pressure (yes, no); cholesterol (including LDL/HDL).

RESULTS

Table 1 shows the significant changes for each sub-cohort and both genders between stage 1 and stage 2. For the older cohort (1946-55) there were increases in the prevalence of health conditions (diabetes, mental health) and risk factors (cholesterol), but smoking prevalence declined marginally. For the younger cohort there were also significant increases in health conditions (cardiovascular disease, asthma, mental health), risk factors (blood pressure, cholesterol), with a decrease in smoking. In the younger cohort there were also changes in employment status. For both males and females overall there were similar increases in health conditions (asthma, mental health), risk factors (blood pressure, cholesterol) with only a significant decline in smoking in males. Important changes in
employment occurred only for females, with an increase in full time employment in the younger cohort.

The panel data analyses assessed how changes in the dependent PCS and MCS were affected by changes in the independent variables shown in Table 1. The panel analysis was conducted for the overall baby boomer population to retain power. Table 2 shows there was a non-significant net change in the overall baby-boomer PCS between stage 1 and stage 2 (t=0.34, p=0.74) but a significant improvement in the MCS between stages (t=2.91, p<0.01). It should be remembered that the non-significant change over time for the PCS masks gross change occurring within the variable as some people change positively, negatively or not at all, and this movement can create a non-significant net outcome. The significant positive change in the MCS over time indicates that more people changed their MCS in a positive direction than in a negative direction.

In terms of employment Table 2 shows a statistically significant improvement in the PCS for those becoming employed and a decline for those taking up home duties or receiving a social security pension for other than unemployment. A negative change in the PCS was also seen for the sedentary and there was an indication that taking up any form of exercise was associated with positive change, though only moderate exercise approached significance (p=0.1). Other improvements in the PCS were seen in those who experienced little or no lung disease symptoms and declines were seen in those who received a doctor diagnosis of a mental health problem or whose body mass increased.

Significant improvements in the MCS were observed for those becoming unemployed and on unemployment benefit and those with no lung disease symptoms approached significance. Significant declines were also observed for those receiving a social security
pension that was not an unemployment benefit. There were also significant declines in the MCS for those diagnosed with a mental health problem, for the sedentary, and marginally significant declines for those diagnosed with a cardiovascular problem.

There was a high correlation of 0.7 between the PCS and the MCS.

**DISCUSSION**

From the results we are able to see first, how independent health and risk factor variables changed over a four year follow up period in this critical economic workforce group and how this informs a major question in the introduction as to the whether or not longevity will be accompanied by good health. Health and risk factor changes occurred not only in the older cohort group, but there were also significant negative changes in disease and health risk factors categories in the younger cohort over this period. Specifically for the latter group, there were significant changes in mental health, asthma, blood pressure and cholesterol and a marginally significant decrease in exercise levels. There was, however, a significant reduction in smoking prevalence. Overall this evidence does not augur well for positive future health outcomes as either cohort age further. The evidence would also indicate the need for a different targeted approach to each age cohort in terms of policy and intervention initiatives, with a stronger emphasis on primary and secondary prevention in the younger group and secondary prevention and improved management strategies for the older group if the goal of the National Preventative Health Strategy is to be achieved.

The panel data analysis tells us which factors were driving change, positively or negatively, in the health summary variables. The variables driving changed are multi-dimensional and comprise social/behavioural variables (employment, exercise level and obesity) and health/disease variables (mental health, lung disease, and cardio problems).
This supports the need for both structural health promoting initiatives as well as health service initiatives to reduce the burden of future disease in the baby boomer population. The inter-relationship of both physical and mental health will also determine the mix of health services required if baby boomers are to age successfully and be an important economic resource. It has also been shown that older adults themselves place greater emphasis on psychosocial factors\textsuperscript{13} as the key to healthy ageing and in dealing with this target group in the health services the treatment of physical health independently of mental health may not be a complete patient response.

A further observation from this analysis is that a current doctor diagnosed mental health condition influenced gross negative change in the PCS. This tends to support a minority literature position in that the direction of the relationship between mental and physical health is the other way round. Physical health conditions\textsuperscript{14,15,16}, pain\textsuperscript{17}, physical activity\textsuperscript{18}, risk factors\textsuperscript{19}, functional decline\textsuperscript{20} and lifestyle\textsuperscript{21} tend to dominate in the literature in terms of direction of effect/influence with mental health. Although there is evidence of the reverse relationship\textsuperscript{22,23,24} this emphasis is less evident. This may in fact relate to the dominant design of studies being cross-sectional in nature, with fewer cohort studies and, with some exceptions, to the use of convenient clinical samples in studies or the fact that mental health may often be a supplementary question in health research and not the main focus. The advantage of the design in our study over cross-sectional studies is that the latter cannot analyse change in individuals, but they can determine the direction of a relationship e.g. a correlation or a simple ordinary least squares regression can tell you that the lower your mental health the lower your PCS. A series of cross-sectional analyses can examine net change but not gross change.
The improvement in the MCS for the unemployed group seems counter intuitive but it should be remembered that we are dealing with the baby boomer population, many of whom are nearing retirement and may be reasonably happy to be unemployed. It should also be pointed out that there was a decline in the MCS for the “other” unemployed who were receiving benefits that were not unemployment benefits. This is likely to cover disability or carer benefits. This complexity in the analysis points to the need for more fine-grained intelligence for public health targeting.

Currently, the major Australian health service strategy targeting health in the middle age is the Medical Benefits Schedule Item 771 providing the 45 to 49 year old Health Check\textsuperscript{25} aimed at younger baby boomers. This provides a primary care diagnosis for biomedical issues such as blood pressure and cholesterol, family history of disease and identification of risk factors such as smoking and obesity. There is no provision for dealing with mental health problems or socio-economic issues that affect health like employment or work-life balance. Evaluation of the Health Check\textsuperscript{26} has shown that of the patients invited to attend the health check only one fifth did so and that few changed their level of health risk. Primary health care is the frontline for health outcomes for baby boomers and new research is required to determine if primary care can be more effective in primary and secondary prevention and improved management of health conditions. This makes future planning for this group a health priority and such planning needs to be informed by high quality sub-population studies if Australia is to qualify as the healthiest nation by 2025\textsuperscript{5,27}.

A limitation of the study is the short four-year follow up, but the high quality population sample, the objective biomedical evidence, the range of issues covered and the study analysis perhaps offset this. There is also an internal consistency to the data in that
changes in the metabolic variables included would also help explain changes in some
disease categories.

(word count 2958)
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*statistically significant at the 0.05 level

^ approached statistical significance at the 0.1 level

1 Receiving unemployment benefit.
2 Receiving other type of benefit (disability, carer).
Table 2: Panel data analyses of the variables influencing change in the PCS & MCS summary health scales of the SF-36 health related questionnaire, over time.

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<td>Cardio Problem</td>
<td>-4.02</td>
<td>0.10</td>
</tr>
<tr>
<td>Diagnosed Mental Health Problem</td>
<td>-2.38</td>
<td>0.04</td>
</tr>
<tr>
<td>BMI</td>
<td>-039</td>
<td>0.02</td>
</tr>
</tbody>
</table>

* 95% Confidence interval

1 Receiving unemployment benefit.
2 Receiving other type of benefit (disability, carer).
REFERENCES


2 Commonwealth of Australia. Intergenerational Report, Australia to 2050: Future Challenges. Canberra 2010; Department of Treasury.


Appendix 4.12:  SF-36 Summary Scores for Arthritis – 1946-55 and 1956-65 Cohorts

SF-36 Summary Scores for Arthritis – 1946-55 Cohort

Source: NWAHS Stage 2

SF-36 Summary Scores for Arthritis – 1956-65 Cohort

Source: NWAHS Stage 2

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Appendix 4.13: Chronic Disease and Comorbidity Associations

The table below shows the statistically significant associations that each chronic disease has with other chronic diseases examined in this study. The ‘All BBs’ column refers to the association between the specified condition and other conditions across the whole cohort; the ‘Females’ column identifies whether females are more or less likely to have that particular pattern of comorbidities than males and the ‘1946-55 cohort’ column identifies whether the 1946-55 cohort is more or less likely to have that particular pattern of comorbidities than the 1956-65 cohort.

<table>
<thead>
<tr>
<th>Chronic Condition</th>
<th>Statistically Significant Comorbidities</th>
<th>All BBs</th>
<th>P value</th>
<th>1946-55 Cohort</th>
<th>P value</th>
<th>Females</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>Cardio, Arthritis, Obesity, COPD</td>
<td>.010</td>
<td>.005</td>
<td>.000</td>
<td>.000</td>
<td>Arthritis</td>
<td>.055†</td>
</tr>
<tr>
<td>Asthma</td>
<td>Arthritis, COPD</td>
<td>.005</td>
<td>.000</td>
<td>Arthritis COPD</td>
<td>.001†</td>
<td>Arthritis</td>
<td>.047†</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>Diabetes, Arthritis, COPD</td>
<td>.010</td>
<td>.034</td>
<td>Obesity</td>
<td>.044↓</td>
<td>Arthritis</td>
<td>.030↑</td>
</tr>
<tr>
<td>Psychological</td>
<td>Arthritis, COPD</td>
<td>.000</td>
<td>.000</td>
<td>Diabetes</td>
<td>.016↑</td>
<td>Arthritis</td>
<td>.000↑</td>
</tr>
<tr>
<td>Wellbeing</td>
<td>Arthritis, COPD</td>
<td>.000</td>
<td>.000</td>
<td>Arthritis</td>
<td>.000↑</td>
<td>Arthritis</td>
<td>.000↑</td>
</tr>
<tr>
<td>Arthritis</td>
<td>Diabetes, Asthma, Cardio, Psych well, Obesity, Osteoporosis, COPD</td>
<td>.005</td>
<td>.054</td>
<td>Diabetes, Cardio, Kid disease</td>
<td>.002↑</td>
<td>Diabetes, Cardio, Kid disease, COPD</td>
<td>.029↓</td>
</tr>
<tr>
<td>Obesity</td>
<td>Diabetes, Arthritis, COPD</td>
<td>.000</td>
<td>.000</td>
<td>Arthritis</td>
<td>.000↑</td>
<td>Asthma</td>
<td>.016)↑</td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>Arthritis</td>
<td>.018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COPD</td>
<td>Asthma, Cardio, Psych well, Arthritis, Obesity</td>
<td>.000</td>
<td>.004</td>
<td>Arthritis</td>
<td>.069↑</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

† <.005 positive association; ↓<.005 negative association.

Source: NWAHS Stage 2, 2004-06
Appendix 4.14: Data Items in Multiple Chronic Conditions and Risk Factor Variables

The chronic condition variable included: cardiovascular disease; asthma; stage 3-5 kidney disease; osteoporosis; arthritis; diabetes; psychological wellbeing (high to severe); and COPD. The risk factor variable included: sedentary or low exercise; classes 1-3 obesity; high blood pressure; high cholesterol; IFG; high waist hip ratio; current smoking; and intermediate to high risk alcohol use. Parameters for these chronic conditions and risk factors are defined in Appendix 4.2 above.

In Figure 6.12, Chapter 6, the multiple chronic conditions variable excluded psychological wellbeing as this was the variable being examined.
## Appendix 4.15: Risk Factors Associated with 3 or more Chronic Conditions

### 1946-55 Cohort

<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>Less than 3 CCs %</th>
<th>3 or more CCs %</th>
<th>Total (Row)</th>
<th>ORs</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BMI</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not obese</td>
<td>93.7</td>
<td>6.3</td>
<td>350</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Obese BMI &gt;= 30</td>
<td>85.8</td>
<td>14.2</td>
<td>180</td>
<td>2.47</td>
<td>.005</td>
</tr>
<tr>
<td><strong>Smoking</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non smoker</td>
<td>91.7</td>
<td>8.3</td>
<td>433</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Current smoker</td>
<td>88.3</td>
<td>11.7</td>
<td>97</td>
<td>1.46</td>
<td>.328</td>
</tr>
<tr>
<td><strong>Physical Activity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate-high activity</td>
<td>93.5</td>
<td>6.5</td>
<td>147</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Sedentary-low activity</td>
<td>90.4</td>
<td>9.6</td>
<td>331</td>
<td>1.55</td>
<td>.287</td>
</tr>
<tr>
<td><strong>Alcohol</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No risk group (0-low risk)</td>
<td>90.9</td>
<td>9.1</td>
<td>484</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Risk group (med-high risk)</td>
<td>96.9</td>
<td>3.1</td>
<td>32</td>
<td>.318</td>
<td>.345</td>
</tr>
<tr>
<td><strong>Cholesterol</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No risk group (&lt;5.5 mmol/L)</td>
<td>91.5</td>
<td>8.5</td>
<td>245</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Risk group (&gt;=5.5 mmol/L)</td>
<td>90.7</td>
<td>9.3</td>
<td>285</td>
<td>1.11</td>
<td>.763</td>
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<tr>
<td><strong>Blood Pressure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No risk group (sys&lt; 140 dias&lt;90)</td>
<td>90.3</td>
<td>9.7</td>
<td>443</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Risk group (sys&lt; 140 dias&lt;90)</td>
<td>94.9</td>
<td>5.1</td>
<td>83</td>
<td>.497</td>
<td>.207</td>
</tr>
<tr>
<td><strong>Waist Hip Ratio</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No risk group (whr &lt;=1.0 males; &lt;=0.85 females)</td>
<td>94.7</td>
<td>5.3</td>
<td>363</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Risk group (whr &gt;1.0 males; &gt;0.85 females)</td>
<td>82.7</td>
<td>17.3</td>
<td>163</td>
<td>3.75</td>
<td>.000</td>
</tr>
<tr>
<td><strong>Impaired Fasting Plasma Glucose (FPG)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal FPG&lt;6.1 mmol/L</td>
<td>91.2</td>
<td>8.8</td>
<td>514</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Impaired FPG&gt;=6.1 &amp; &lt;7.0mmol/L</td>
<td>86.0</td>
<td>14.0</td>
<td>16</td>
<td>1.69</td>
<td>.644</td>
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</table>

### 1956-65 Cohort

<table>
<thead>
<tr>
<th>Variable</th>
<th>Less than 3 CCs %</th>
<th>3 or more CCs %</th>
<th>Total (Row)</th>
<th>ORs</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BMI</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not obese</td>
<td>97.4</td>
<td>2.6</td>
<td>413</td>
<td>1.0</td>
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<tr>
<td>Obese BMI &gt;= 30</td>
<td>92.8</td>
<td>7.2</td>
<td>189</td>
<td>2.86</td>
<td>.009</td>
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<tr>
<td><strong>Smoking</strong></td>
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</tr>
<tr>
<td>Non smoker</td>
<td>96.6</td>
<td>3.4</td>
<td>448</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current smoker</td>
<td>94.0</td>
<td>6.0</td>
<td>155</td>
<td>1.83</td>
<td>.152</td>
</tr>
<tr>
<td><strong>Physical Activity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate and high levels activity</td>
<td>97.3</td>
<td>2.7</td>
<td>176</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Sedentary and low levels activity</td>
<td>95.9</td>
<td>4.1</td>
<td>368</td>
<td>1.57</td>
<td>.628</td>
</tr>
<tr>
<td><strong>Alcohol</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No risk group (0-low risk)</td>
<td>95.6</td>
<td>4.4</td>
<td>529</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Risk group (intermediate-high risk)</td>
<td>96.9</td>
<td>3.1</td>
<td>47</td>
<td>.698</td>
<td>.712</td>
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<tr>
<td><strong>Cholesterol</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No risk group (&lt;5.5 mmol/L)</td>
<td>95.7</td>
<td>4.3</td>
<td>322</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Risk group (&gt;=5.5 mmol/L)</td>
<td>96.1</td>
<td>3.9</td>
<td>282</td>
<td>.903</td>
<td>.805</td>
</tr>
<tr>
<td><strong>Blood Pressure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No risk group (systolic &lt; 140 diastolic &lt;90)</td>
<td>96.1</td>
<td>3.9</td>
<td>561</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Risk group (systolic &gt;=140 diastolic &gt;=90)</td>
<td>93.2</td>
<td>6.8</td>
<td>39</td>
<td>1.79</td>
<td>.217</td>
</tr>
<tr>
<td><strong>Waist Hip Ratio</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No risk group (whr &lt;=1.0 males; &lt;=0.85 females)</td>
<td>97.0</td>
<td>3.0</td>
<td>471</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Risk group (whr &gt;1.0 males; &gt;0.85 females)</td>
<td>92.0</td>
<td>8.0</td>
<td>129</td>
<td>2.75</td>
<td>.013</td>
</tr>
<tr>
<td><strong>Impaired Fasting Plasma Glucose</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal fasting plasma glucose &lt;6.1 mmol/L</td>
<td>95.9</td>
<td>4.1</td>
<td>596</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FPG&gt;=6.1 &amp; &lt;7.0mmol/L</td>
<td>100.0</td>
<td>0.0</td>
<td>7</td>
<td>1.00</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: NWAHS Stage 2, 2004-06
### Appendix 4.16: Current Employment Status of the Retired

<table>
<thead>
<tr>
<th>Current Employment Status</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time</td>
<td>.9</td>
</tr>
<tr>
<td>Part-time</td>
<td>5.0</td>
</tr>
<tr>
<td>Casual</td>
<td>3.0</td>
</tr>
<tr>
<td>Unemployed</td>
<td>4.8</td>
</tr>
<tr>
<td>Retired</td>
<td>65.9</td>
</tr>
<tr>
<td>Home Duties</td>
<td>7.8</td>
</tr>
<tr>
<td>Unable to work</td>
<td>12.5</td>
</tr>
<tr>
<td>Total</td>
<td>111</td>
</tr>
</tbody>
</table>

Source: NWAHS Telephone Follow Up Survey 2 (CATI), 2007
APPENDIX 5
Material Relating to Chapter 8
### Appendix 5.1: Data Used to Compare 1981 and 2006 Rental Costs for 45-54 Year Olds

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
<td>$</td>
<td>$</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>0-49</td>
<td>0-48</td>
<td>0-22</td>
<td>15.85</td>
<td>17.97</td>
<td>16.9</td>
<td>6.74</td>
<td>5.59</td>
<td>6.2</td>
</tr>
<tr>
<td>50-74</td>
<td>51-73</td>
<td>23-33</td>
<td>15.08</td>
<td>14.11</td>
<td>14.6</td>
<td>5.04</td>
<td>5.84</td>
<td>5.4</td>
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<tr>
<td>75-99</td>
<td>75-99</td>
<td>34-45</td>
<td>28.34</td>
<td>28.31</td>
<td>28.3</td>
<td>4.37</td>
<td>4.29</td>
<td>4.3</td>
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<tr>
<td>100-119</td>
<td>101-119</td>
<td>46-54</td>
<td>12.01</td>
<td>11.50</td>
<td>11.8</td>
<td>4.83</td>
<td>5.67</td>
<td>5.3</td>
</tr>
<tr>
<td>120-139</td>
<td>121-139</td>
<td>55-63</td>
<td>9.70</td>
<td>8.70</td>
<td>9.2</td>
<td>6.45</td>
<td>5.71</td>
<td>6.1</td>
</tr>
<tr>
<td>140-159</td>
<td>141-158</td>
<td>64-72</td>
<td>5.86</td>
<td>6.38</td>
<td>6.1</td>
<td>7.45</td>
<td>7.51</td>
<td>7.5</td>
</tr>
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<td>160-179</td>
<td>161-176</td>
<td>73-80</td>
<td>5.00</td>
<td>4.35</td>
<td>4.7</td>
<td>8.33</td>
<td>7.96</td>
<td>8.1</td>
</tr>
<tr>
<td>180-199</td>
<td>180-194</td>
<td>82-88</td>
<td>1.15</td>
<td>1.74</td>
<td>1.4</td>
<td>7.70</td>
<td>7.43</td>
<td>7.6</td>
</tr>
<tr>
<td>200-274</td>
<td>198-268</td>
<td>90-122</td>
<td>5.19</td>
<td>4.73</td>
<td>5.0</td>
<td>24.56</td>
<td>25.80</td>
<td>25.2</td>
</tr>
<tr>
<td>275-299</td>
<td>275-297</td>
<td>125-135</td>
<td>0.48</td>
<td>0.58</td>
<td>0.5</td>
<td>3.91</td>
<td>3.76</td>
<td>3.8</td>
</tr>
<tr>
<td>300+</td>
<td>&gt;308</td>
<td>&gt;140</td>
<td>1.34</td>
<td>1.64</td>
<td>1.5</td>
<td>20.61</td>
<td>20.45</td>
<td>20.5</td>
</tr>
</tbody>
</table>

| Total                |                  |                  | 104100  | 103500      | 207600      | 240200  | 245000      | 485200       |

Note: Not stated and not applicable have been excluded.

Note: Based on author’s calculations.

Source: (ABS, 1981b; 2006b)

1981 rents were equivalised to match 2006 rents using CPI converter, with $1.00 in 1981 being equivalent to $2.22 in 2006. For example, 1981 rents between 0-22 were equivalent to 2006 rents between 0-48 and so on. Data includes both public and private rentals. In the 1981 ABS HSF rents were provided on a scale of $0.00 to $68.00 however, after this they started skipping with no logical pattern. This made it difficult to create consistent rent categories with 2006 which had much broader rental categories. I was able to keep both years in tandem up to and including 2006 $140-159/1981 $141-158 but after that I couldn’t get an exact match so they are just approximate matches.
### Appendix 5.2: Logistic Regression Results for Attraction to Housing Options

<table>
<thead>
<tr>
<th>Remaining in Own Home</th>
<th>P Value</th>
<th>ORs</th>
<th>CIs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Renting</strong></td>
<td>.005*</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Own home outright</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paying off a mortgage</td>
<td>.134</td>
<td>.62</td>
<td>.33 – 1.16</td>
</tr>
<tr>
<td>Renting</td>
<td>.001</td>
<td>.30</td>
<td>.14 – .61</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td>.000*</td>
<td>1.0</td>
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</tr>
<tr>
<td>Married</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Divorced/separated</td>
<td>.000</td>
<td>.23</td>
<td>.12 – .42</td>
</tr>
<tr>
<td>Widowed</td>
<td>.645</td>
<td>.71</td>
<td>.16 – 3.05</td>
</tr>
<tr>
<td>Never married</td>
<td>.000</td>
<td>.20</td>
<td>.09 – .42</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Traditional Retirement Village</th>
<th>Sex</th>
<th>P Value</th>
<th>ORs</th>
<th>CIs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Renting</strong></td>
<td>.000*</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>.000</td>
<td>2.21</td>
<td>1.42-3.46</td>
<td></td>
</tr>
<tr>
<td><strong>Children</strong></td>
<td>.032*</td>
<td>1.0</td>
<td>1.74 – 6.60</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>.026</td>
<td>1.83</td>
<td>1.08-3.10</td>
<td></td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td>.183</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Divorced/Separated</td>
<td>.076</td>
<td>1.63</td>
<td>.95-2.80</td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td>.814</td>
<td>1.13</td>
<td>3.23</td>
<td></td>
</tr>
<tr>
<td>Never Married</td>
<td>.257</td>
<td>.593</td>
<td>.24-1.46</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Resort Retirement Complex</th>
<th>Tenure</th>
<th>P Value</th>
<th>ORs</th>
<th>CIs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Renting</strong></td>
<td>.003*</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Own home outright</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paying off a mortgage</td>
<td>.296</td>
<td>1.34</td>
<td>.771-2.34</td>
<td></td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td>.000</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>.000</td>
<td>2.54</td>
<td>1.84-3.51</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cohousing</th>
<th>Education</th>
<th>P Value</th>
<th>ORs</th>
<th>CIs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Secondary</strong></td>
<td>.009*</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade Certificate</td>
<td>.271</td>
<td>1.31</td>
<td>.81-2.10</td>
<td></td>
</tr>
<tr>
<td>Bachelor</td>
<td>.002</td>
<td>2.48</td>
<td>1.40-4.41</td>
<td></td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td>.067*</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>.070</td>
<td>1.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td>.000*</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than $100,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to $20,000</td>
<td>.657</td>
<td>.80</td>
<td>.30-2.13</td>
<td></td>
</tr>
<tr>
<td>$20,001-$40,000</td>
<td>.265</td>
<td>1.58</td>
<td>.71-3.55</td>
<td></td>
</tr>
<tr>
<td>$40,001-$60,000</td>
<td>.090</td>
<td>.48</td>
<td>.21-1.12</td>
<td></td>
</tr>
<tr>
<td>$60,001-$100,000</td>
<td>.175</td>
<td>1.65</td>
<td>.97-2.31</td>
<td></td>
</tr>
<tr>
<td><strong>Cohort</strong></td>
<td>.003*</td>
<td>1.0</td>
<td>1.24-2.84</td>
<td></td>
</tr>
<tr>
<td>1946-55</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1956-65</td>
<td>.003</td>
<td>1.88</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1Marital status was marginally significant but was included in the model because it was considered important.

*Log Likelihood used for overall significance and Wald test used for individual significance

Source: NWAHS Telephone Follow Up Survey 2 (CATI & Postal/online), 2007
Appendix 5.3: Community Sector Views on Housing Policy for Older People

In addition to proposing a National Older Persons Housing Strategy, the Older Persons Affordable Housing Alliance (Older Persons Affordable Housing Alliance 2009) has suggested that recent policy initiatives would be improved by:

- The development of a policy framework for funding public housing for older people within any NAHA and economic stimulus package;

- The inclusion of the redevelopment or upgrading of ILUs as a legitimate function of funding available through the NRAS and the Social Initiative on Housing;

- The removal of barriers introduced by some SHAs which exclude or limit the level of state based NRAS support for aged care providers; and

- The introduction of greater flexibility regarding the size of developments occurring under the NRAS, as the minimum of 20 dwellings is an issue for smaller and rural providers.
APPENDIX 6
Tables Relating to Chapter 9
Appendix 6.1: Key Features of the Age Pension as of September 2009/10

The information in Appendices 6.1 to 6.3 was sourced from: ‘Secure & Sustainable Pensions’ (Commonwealth of Australia, 2009b); ‘Senior’s Payment Rates, 20 March-30 June 2010’ (Commonwealth of Australia, 2009c); ‘A Guide to Australian Government Payments’ (Commonwealth of Australia, 2009d).

**Age Pension Age:** Men: 65 years; women – varies according to table below:

<table>
<thead>
<tr>
<th>Date of Birth</th>
<th>Eligibility Age for Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 July 1944 to 31 December 1945</td>
<td>63.5</td>
</tr>
<tr>
<td>1 January 1946 to 30 June 1947</td>
<td>64</td>
</tr>
<tr>
<td>1 July 1947 to 31 December 1948</td>
<td>64.5</td>
</tr>
<tr>
<td>1 January 1949 to 31 December 1952</td>
<td>65</td>
</tr>
</tbody>
</table>

From 2017, eligibility age will increase to 67 years at a rate of 6 months every two years (see Appendix 7.4).

**Pension Rate per fortnight** - Singles: $644.20 Couples: $485.60 each

**Income and Asset Tests**

The rate of payment is calculated under both the income and assets tests. The test that results in the lower rate (or nil rate) will apply.

**Income Free Area**

Up to $142 pf for singles on full pension and less than $1544.20 pf for those on part pension
Up to $248 pf for couples (combined) for those on full pension and less than $2362.00 pf on a part pension.

Employment income is subject to a work bonus for eligible pensioners over age pension age.

**Assets Test Free Area**

<table>
<thead>
<tr>
<th>Home Ownership</th>
<th>Family Status</th>
<th>Full pension</th>
<th>Part Pension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homeowners</td>
<td>Single</td>
<td>Up to $178,000</td>
<td>&lt;$645,000</td>
</tr>
<tr>
<td>Partnered (combined)</td>
<td>Up to $252,000</td>
<td>&lt;$957,500</td>
<td></td>
</tr>
<tr>
<td>Non-Homeowners</td>
<td>Single</td>
<td>Up to $307,000</td>
<td>&lt;$774,500</td>
</tr>
<tr>
<td>Partnered (combined)</td>
<td>Up to $381,500</td>
<td>&lt;$1,086,500</td>
<td></td>
</tr>
</tbody>
</table>

**Taper Rates**

**Income:** Income over the free area reduces rate of pension payable by 50 cents in the dollar for singles and 25 cents in the dollar each for couples. For non-home-owners limits may increase if rent assistance is paid with the pension.

**Assets:** Assets over the free area reduce the pension by $1.50 per fortnight for every $1000 above the amount (single and couple combined). For non-home-owners limits may increase if rent assistance is paid with the pension.

**Work Bonus**

The Work Bonus is a concession on the income test treatment of employment income for those on the Age Pension. Half of the first $500 of fortnightly employment income will be disregarded from the income test for Age Pensioners. This is in addition to the normal allowable income threshold.
Appendix 6.2: Allowance and Supplements Associated with the Age Pension

**Pensioner Concession Card**
Automatically issued to all Age Pensioners receiving an income support supplement. Benefits include: prescriptions on the PBA concession rate; bulk billing by GPs (at discretion of doctor); increase in benefits for out of pocket out of hospital expenses above a certain threshold through the Medicare safety net; assistance with some hearing services eg test and hearing aids; discount on mail redirection through Australia Post; and concessions on Great Southern Rail Services (GSR)

**Pension Supplement**
Paid fortnightly but about half of the Pension supplement can be received quarterly.

Singles: $56.90 Maximum rate and $30.60 minimum rate (paid fortnightly)
Couples: $85.80 maximum rate and $46.20 minimum rate (paid fortnightly)

**Rent Assistance**
Rent Assistance (RA) is non-taxable and is available primarily to those who are in receipt of an income support payment and who pay private rent beyond a certain value but is also available to those who pay service and maintenance fees in a retirement village that exceeds $98.90 (single) or $161.00 (couple). RA is not available to residents of Australian Government funded nursing homes and hostels or to public tenants. RA is not separately income tested but is subject to the income test of the payment it is included in.

<table>
<thead>
<tr>
<th>Family Situation*</th>
<th>Max payment per fortnight</th>
<th>No payment if fortnightly rent is &lt;</th>
<th>Maximum payment if fortnightly rent is &gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Single</td>
<td>113.40</td>
<td>100.80</td>
<td>252.00</td>
</tr>
<tr>
<td>Single sharer</td>
<td>75.60</td>
<td>100.80</td>
<td>201.60</td>
</tr>
<tr>
<td>Couple</td>
<td>107.00</td>
<td>164.40</td>
<td>307.07</td>
</tr>
<tr>
<td>Couple separated by illness**</td>
<td>114.30</td>
<td>100.80</td>
<td>252.00</td>
</tr>
<tr>
<td>One of a couple temporarily separated</td>
<td>107.00</td>
<td>100.80</td>
<td>243.47</td>
</tr>
</tbody>
</table>

*All of these family situations exclude children (rent assistance for those with dependent children available through Family Tax Benefit)
**Includes respite care and partner in prison

**Remote Area Allowance (RAA)**
RAA is paid to pensioners who usually reside in ordinary Tax Zone A, with some exceptions for those in Special Tax Zone A and those in Special Tax Zone B. It is paid in addition to the pension, is not taxed, is not subject to income or assets tests and is not indexed. The rate of payment for singles is $18.20 pf and $15.60 pf for each eligible member of a couple.
Appendix 6.3: Allowances and Benefits Available to Seniors not on a Pension

**Commonwealth Seniors Health Care Card**
Targeted at self-funded retirees of Age Pension age who do not qualify for Age Pension due to exceeding income and assets test levels. Eligibility also entitles individual to Senior’s Supplement. Annual adjusted income must be less than that listed below, but $639.60 pa added to income threshold for each dependent child. No assets test.

- **Singles**: $50,000
- **Couples**: $80,000 (Combined income). Couples separated by illness: $100,000 (combined income)

**Benefits:**
- Prescriptions on the PBA concession rate
- Bulk billing by GPs (at discretion of doctor)
- Increased benefits for out of pocket out of hospital expenses through the Medicare safety net
- Concessions on Great Southern Rail Services

**Seniors Supplement**
- **Singles**: $795.60 pa
- **Couples**: $600.60 pa for a cardholder who is partnered.

**Seniors Bonus payments**: One-off lump sum payment of $500. Non taxable.

**Payments and Allowances for which both Age Pension and non Pensioners may be eligible.**

**South Australian Seniors Card for those who are:**
- Aged 60 years or older
- Permanent South Australian resident
- Not working more than 20 hours per week in paid employment (can be averaged over a 12 month period).

**Benefits/Concessions:**
- Free Adelaide Metro public transport between 9.01am - 3.00pm Monday to Friday
- Free Adelaide Metro public transport on weekends and public holidays
- Approximately 50% concession on State public transport services at other times
- Concessional public transport in all Australian states/territories
- Rebates on the Emergency Services Levy and council rates (conditions apply)
- Discounts and benefits at hundreds of businesses around Australia

**Mobility Allowance**
Non-means tested non-taxable income supplement for people with disability aged 16+ and unable to use public transport without substantial assistance. Only the standard rate appears to apply to Age Pensioners. Eligibility: engaged in approved activity at least 32 hours every 4 weeks – can be combination of employment, voluntary work or vocational training or it could be just one of these activities. The basic rate is $75.90 per fortnight.

**Carer Allowance**
For people providing daily care at home to a person with disability or medical condition aged 16 or over with substantial functional impairment; or dependant child needing substantially more care than child without a disability. It is an annual, indexed, non means tested, non taxable payment. Payment Rate: $106.70 per fortnight.

**Carer Supplement**
For individuals receiving: Carer Allowance, Carer Payment, Wife Pension with Carer Allowance, DVA Carer Service Pension; and DVA Partner Service Pension with Carer Allowance. Carer Allowance payment is up to $600 pa for each person cared for. Those on other listed Centrelink/Service pensions receive additional $600.
Appendix 6.4: Increasing the Eligibility Age for the Age Pension and the Preservation Age

From 2017, the eligibility age for the Age Pension will be progressively increased to 67 years. This will occur through 6 monthly increments every two years with 2023 being the first year that individuals cannot access the Pension until age 67. The superannuation preservation age for baby boomers born prior to July 1960 is still 55 years but is being progressively increased for those born after this date and will reach 60 years by 2024 for those born after July 1964 (Australian Taxation Office 2010). The Henry Review recommended that the preservation age be further increased to age 67 to improve integration with the Age Pension system but, to date, this recommendation has not been taken up (Henry, 2009).

Incremental Changes to the Age Pension age criteria

<table>
<thead>
<tr>
<th>Date</th>
<th>New Age Pension Age</th>
<th>Affects People Born</th>
<th>Current Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 July 2017</td>
<td>65.5</td>
<td>1 Jul 1952 – 31 Dec 1953</td>
<td>55.5 to 57</td>
</tr>
<tr>
<td>1 July 2019</td>
<td>66</td>
<td>1 Jul 1954 – 30 Jun 1955</td>
<td>54 to 55.5</td>
</tr>
<tr>
<td>1 July 2021</td>
<td>66.5</td>
<td>1 Jul 1955 – 31 Dec 1956</td>
<td>52.5 to 54</td>
</tr>
<tr>
<td>1 July 2023</td>
<td>67</td>
<td>1 Jul 1957 - onwards</td>
<td>52.5 or younger</td>
</tr>
</tbody>
</table>

Progressive changes to the Superannuation Preservation Age

<table>
<thead>
<tr>
<th>Date of birth</th>
<th>Preservation age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before 1 July 1960</td>
<td>55</td>
</tr>
<tr>
<td>1 July 1960 – 30 June 1961</td>
<td>56</td>
</tr>
<tr>
<td>1 July 1961 – 30 June 1962</td>
<td>57</td>
</tr>
<tr>
<td>1 July 1962 – 30 June 1963</td>
<td>58</td>
</tr>
<tr>
<td>1 July 1963 – 30 June 1964</td>
<td>59</td>
</tr>
<tr>
<td>From 1 July 1964</td>
<td>60</td>
</tr>
</tbody>
</table>
Eudaimonic Wellbeing

The concept of ‘eudaminoic’ or psychological wellbeing relates to the realisation of personal potential. This model has been operationalised by Carol Ryff through a focus on the primary points of convergence of a number of models of self-actualisation. The framework developed by Ryff includes six dimensions of wellbeing including: self-acceptance; purpose in life; personal growth; positive relations with others; environmental mastery; and autonomy. It contrasts with the concept of ‘hedonic’ or subjective wellbeing which is rooted in ‘... ideas of pleasure, happiness and the satisfaction of human appetites’ (Ryff 2004:1384).

Sub-syndromal Depression

Sub-syndromal depression has been defined as ‘the presence of “two or more simultaneous symptoms of depression, present for most or all of the time, at least 2 weeks in duration, associated with evidence of social dysfunction, occurring in individuals who do not meet criteria for diagnoses of minor depression, major depression, and/or dysthymia”’. (Judd (1994) cited in Goldney et al. 2004:293)

Transition to Retirement Measure

This measure was introduced by the Commonwealth Government in 2005. It allows employees who have reached the superannuation preservation age to reduce their working hours but to still maintain their income by accessing superannuation benefits through an income stream.
References


Armstrong Mair, C. 2007, 'Convoys of social support across the life course and the impact on subjective well-being of older adults', paper presented to the Annual Meeting of the American


Australian Bureau of Statistics. 2007, *Housing Occupancy and Costs* Cat. no. 4130.0.55.001, ABS, Canberra.


Australian Longitudinal Study of Ageing (ALSA), 1992, *Questionnaire: Survey*. Sourced from the Clinical Director, ALSA, Flinders University, South Australia.


Banks, E., Jorm, L., Lujic, S., Rogers, K. 2009, 'Health, ageing and private health insurance: baseline results from the 45 and Up Study cohort.' *Australia and New Zealand Health Policy*, 6(16).


Housing and Urban Research Institute, ANU Research Centre, Canberra, AHURI Final Report No. 56.


Brown, K. 2002-03, 'Key experiences of "baby boom" cohorts.' *Australian Social Policy*, 2002-03.


Colombo, F. & Tapay, N. 2003, *Private Health Insurance in Australia: A Case Study*, Directorate for employment, labour and social affairs, Organisation for Economic Co-operation and
Development, Paris, OECD Health Working paper no. 8, [Online], Available:

Commonwealth of Australia (2009a), National Rental Affordability Scheme Regulations 2008. Office
of Legislative Drafting and Publishing. Attorney-General’s Department. Canberra,

Commonwealth of Australia. 2009b, Secure and Sustainable Pensions, Commonwealth of Australia,

Commonwealth of Australia. 2009c, Seniors Payment Rates: 20 March - 30 June 2010,
Commonwealth of Australia Canberra, [Online], Available:

June 2010, Commonwealth of Australia Canberra, [Online], Available:

Commonwealth Treasury of Australia. 2001, 'Towards higher retirement incomes for Australians: a
history of the Australian retirement income system since Federation', Treasury Economic

Centre, Canberra.

Cornsman, J. & Kingson, E. 1998, 'Trends, issues, perspectives and values for the aging of the baby
boom cohorts.' Generations, 22(1).

Council of Australian Governments. 2009a, National Partnership Agreement on the Nation Building
and Jobs Plan: Building Prosperity for the Future and Building Jobs Now, COAG, Canberra,

Council of Australian Governments. 2009b, National Partnership Agreement on Social Housing,
COAG, Canberra, [Online], Available:

Council of Australian Governments. 2010, National Health and Hospitals Agreement, COAG,

Council of the Aged. 2004, 'COTA National Seniors' Response to the Consumer and Financial Literacy
Taskforce Discussion Paper Australian consumers and money', COTA, Melbourne, [Online],
[13 June, 2010].


de Vaus, D., Kendig, H., et al. (investigators). (nd) 'Appendix 2', *Healthy Retirement Project (1997-1999)*, The University of Sydney and La Trobe University, Lincoln Gerontology Centre for Education and Research, Faculty of Health Sciences.


Flatau, P., James, I., Watson, R., Wood, G., Hendershott, P.H. 2007, 'Leaving the parental home in
Australia over the generations: Evidence from the household, income and labour dynamics in Australia (HILDA) survey  'Journal of Population Research, 24(1).


Glezer, H. 1993, 'Pathways to family formation: to tie or not to tie the knot?' Family Matters, 34:16-20.


Hugo, G. 2007b, 'New questions in the 2006 population census: some initial findings.' *People and Place*, 13(3).


Jones, A., Bell, M., Tilse, C., Earl, G. 2007, Rental Housing for Lower-income Older Australians, Australian Housing and Urban Research Institute (AHURI), Queensland Research Centre, AHURI, Queensland, AHURI Final Report No. 98.


Kelly, S. 2009a, 'Don't stop thinking about tomorrow: the changing face of retirement - the past, the present and the future', *Income and Wealth Report*, AMP.NATSEM, Sydney, Issue 24 [Online], Available: http://www.canberra.edu.au/centres/natsem/publications?sq_content_src=%2BdxjsPWh0dHA lM0ElMkYlMkZ6aWJvLndpbi5jYXwiZXJyYS5lZHuuYXuiMkZuYXRzZW0lMkZpbmRlc3wuYHlvdGllcy5jYW5icmF0aW9uLmVyaXZlYXVzZS5jb20/


Kelly, S. 2009c, 'What the GFC means for superannuation: two points of view', presentation to the *Economic Society*, 12 August, National Centre for Social and Economic Modelling, Canberra, On-line presentation - P194, [Online], Available: http://www.canberra.edu.au/centres/natsem/publications?sq_content_src=%2BdxjsPWh0dHA lM0ElMkYlMkZ6aWJvLndpbi5jYXwiZXJyYS5lZHuuYXuiMkZuYXRzZW0lMkZpbmRlc3wuYHlvdGllcy5jYW5icmF0aW9uLmVyaXZlYXVzZS5jb20/


Macfarlane, I. 2003, 'Economic opportunities and risks over the coming decade', a talk to the 2003 Melbourne Institute Economic and Social Outlook Conference Dinner, Melbourne, 13 November.

Macintosh, A. 2007, Using cheap private health insurance to avoid the Medicare Levy Surcharge - what is the cost to taxpayers?, The Australia Institute, Canberra, Research Paper No. 46.


Magarey, S. 1980, 'Historians questions about the family', in D., Davis, G., Caldwell, M. Bennett, & D. Boorer, (eds), Living together: Family patterns and lifestyles, a Book of Readings and Reports, Centre for Continuing Education, Australian National University, Canberra.


Ng, S. H., Professor., Woo, J., Kwan, A., Lai, S. 2005, 'A positive ageing index for Hong Kong: its development and some preliminary findings, paper presented to the 13th Annual Congress of Gerontology, Hong Kong, Hong Kong Association of Gerontology.


Quine, S., Wells, Y., de Vaus, D., Kendig, H. 2007, 'When choice in retirement decisions is


Richardson, J. 2005, 'Priorities of health policy: cost shifting or population health.' Aust NZ J Public Health, 2(1).


Spaull, A. 1982, Australian Education in the Second World War, University of Queensland Press, St Lucia, Queensland.


Yates, J., Milligan, V., Berry, M., Burke, T., Gabriel, M., Phibbs, P., Pinnegar, S.,