Women in an Ageing Population

Selected findings of the Australian Longitudinal Study on Women's Health

Report prepared for the

Ageing Division
of the
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Take Home Messages

1 Ageing is an issue for women at all life stages:

- Younger women in the Australian Longitudinal Study on Women's Health (ALSWH) mostly aspire to a combination of paid work and motherhood. However, there are regional differences in these aspirations, with Younger rural women aiming to have more children and to becoming mothers at a younger age.
- Mid-age women are not 'retiring' but appear to be increasing the amount of their paid work. These workforce transitions will be further investigated through ALSWH. There is some evidence that employment is linked to better health for women.
- Older women have high self-rated health. They have poorer physical health-related quality of life, but better mental health-related quality of life than Younger and Mid-age ALSWH women.

2 In relation to the healthy ageing agenda, ALSWH data indicate that:

- Many Older women are at high risk of poor nutrition. Women with good nutritional status had better physical and mental health and lower health service use.
- Older women who adopted or maintained some physical activity had better mental health scores than those who didn't.
- The use of medications for "nerves" and "to sleep" among Older women is widespread and often long-term. The use of sleeping medication is associated with poorer health-related quality of life, increased risk of falls and accidents, and with more GP visits.

3 Older women are more likely to be caring for someone than being cared for.

4 Health differentials associated with being widowed are transient, with "recovery" for most women occurring within 12-24 months.

5 In regard to common health conditions and procedures reported by Older women:

- The prevalence of osteoporosis among Older women increased markedly over time. Having osteoporosis was associated with needing help with daily tasks, and with higher use of health services.
- Incontinence is common and many women do not know how to address this problem.
- Skin surgery (~30%) and endoscopy (~20%) were the most commonly reported procedures but skin surgery was more prevalent among Older women living in remote areas. Rates of diagnosed mental health conditions were higher in urban than in rural areas. Depression (~7%) was the most commonly reported mental health diagnosis.

6 Data linkage between ALSWH and HIC data indicate that there is slow uptake of Health Assessments by Older women. Less than one third of ALSWH Older women had an assessment but there were very few differences between women who had health assessments and those who did not, either in regard to social factors such as where they lived, or in regard to their health.

Overview

The ageing of the population has substantial implications for women of all generations. Older women are affected because they live longer than men and therefore have a greater probability of experiencing old age-related health effects, and they provide a substantial proportion of formal and informal care for other older people.

Middle aged women are affected because of their increasing levels of labour force participation, and changing retirement patterns, as well as their roles in caring for parents and older husbands. Labour force participation by these women is important in two regards. Firstly, increasing workforce participation will be necessary to sustain national productivity within an ageing population. Secondly, there is evidence to support that employed women have better health than non-employed women. Presently, around 70% of women aged 45-50 years are in the paid workforce. It is important to understand the factors that influence these women's continued participation in the work force, the impact on their health, and the impact on the availability of informal caregiving over the next 20 years.

Young women are affected because they are the focus of policy aimed at increasing fertility rates. What are the implications for these young women for education and work, and for achieving equal social standing with men? At present, many women in Australia delay childbearing until they have established themselves financially and vocationally, and may have fewer children as a result of this delay. In contrast, in other countries where social policies promote a combination of work and parenthood, fertility rates have been maintained at higher levels.

Women are also affected by increasing reliance on private financing of retirement and aged care: women commonly have had less full-time employment, and less superannuation than their male counterparts.

These issues are amenable to exploration using data from the Australian Longitudinal Study on Women's Health (ALSWH) which involves three cohorts of women: Younger women aged 18-22, mid-aged women aged 45-49, and older women aged 70-75 when the women were first surveyed in 1996. This technical report presents data from these three cohorts of women as they relate to issues of chronological and population ageing.

This report arose from discussions between members of the Australian Longitudinal Study on Women's Health (ALSWH) research team members and members of the Ageing and Aged Care Division of the Department of Health and Ageing (DoHA). These discussions resulted in a series of policy-relevant questions that ALSWH is able to address. Addressing these questions has required a synthesis of ALSWH publications and some further data analysis. The data provided in this technical report have been discussed at collaborative meetings between ALSWH research team members and members of the Ageing and Aged Care Division of DoHA.

The questions addressed in this report include:

- What are Younger women's aspirations for work and childbearing?
- What are the factors relating to workforce participation and withdrawal in Mid-aged women, including their socioeconomic status, financial situation, marital status, husband's workforce status, social roles (especially caregiving), health, and health-related behaviours?
- Is the Healthy ageing agenda supported by Older women's behaviours and health status?
- What is the importance of social support in maintaining health for Older women?
- What are the implications of ageing for vulnerable groups?
- To what extent are women taking up opportunities for health assessments under the Enhanced Primary Care Initiative?
- What are the major causes of morbidity among Older women?
- What are the characteristics of family caregivers in the Mid-aged and Older women?

This technical report begins with a brief description of ALSWH, before providing information relevant to each of the above questions.

This report is written with the aim of providing policy-relevant data to the Department, and suggestions for further analysis or interpretation are welcomed by the research team.

What is the Australian Longitudinal Study on Women's Health?

The Australian Longitudinal Study on Women's Health (ALSWH) – widely known as Women's Health Australia - is a longitudinal population-based survey, which examines the health of over 40,000 Australian women, selected on a random basis with deliberate over-sampling of women in rural and remote areas. It provides an evidence base to the Commonwealth Department of Health and Ageing, for the development and evaluation of policy and practice in many areas of service delivery that affect women. Overviews of the survey, its rationale and methods, can be located on the Study's website http://www.newcastle.edu.au/centre/wha and overview publications include a book targeted at the non-expert level (Lee 2001) and several academic reports (Brown et al. 1996, 1998).

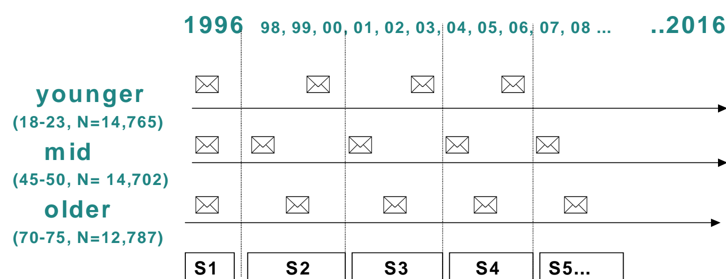
The study was designed to explore factors that influence health among women who are broadly representative of the entire Australian population.

The study assesses:

- Physical and emotional health (including well-being, major diagnoses, symptoms)
- Use of health services (GP, specialist and other visits, access, satisfaction)
- Health behaviours and risk factors (diet, exercise, smoking, alcohol, other drugs)
- Time use (including paid and unpaid work, family roles, and leisure), Sociodemographic factors (location, education, employment, family composition)
- Life stages and key events (such as childbirth, divorce, widowhood).

Women in three age groups (aged 18-23 years, 45-50 years and 70-75 years in 1996) were selected from the Medicare database. Sampling was random within each age group, with women from rural and remote areas sampled at twice the rate of women in urban areas. This means that the numbers of rural women are large enough for statistical comparisons. The study is designed to run for 20 years, with each age cohort surveyed once every three years. Figure i. below shows the timeline for surveys, from Survey 1 of all three cohorts in 1996.

Figure i. Timeline for main ALSWH Surveys



The age groups were selected in order to follow women through life stages which are likely to be critical to their health and well-being. When the study began, the Younger age group was in the early stages of transition from adolescence to adulthood, so that they can be tracked as they move into the work force, enter adult relationships, and become mothers. At Survey 1, the majority of these young women were living in their families of origin (51%) or in shared housing (24%). Almost half (48%) were students; 79% were single; and 92% had no children. By Survey 2, 48% were living with a partner (23% were married and 20% in long-term de facto

relationships) although only 17% were mothers. Two-thirds (67%) had post-secondary educational qualifications and 59% were in full-time paid employment.

The Mid-age group was selected to examine menopausal transitions and the social and personal changes of middle age. At Survey 1, the majority (75%) were married; 37% had full-time employment and 31% part-time. While 91% were mothers, only 58% had children under 16 living with them. Middle age is a time of relative demographic stability, so the picture was relatively similar by Survey 3, with 78% married, 37% in full-time work and 23% in part-time work, although the number with children living at home had fallen to 37%.

The Older group were in their early 70s when selected, in order to recruit older women who are generally still active, involved members of the community. These women are being tracked to obtain information on predictors of continuing well-being and independence in older adult life. At Survey 1, the majority of older women (58%) were married, but widows increased from 36% to 41% of the sample by Survey 2. Over 80% of these women are pensioners, although 35% have superannuation or other private income.

Wherever possible, the surveys incorporate widely used scales and items that have known validity and reliability. For example, the main measure of health used in the study is the Medical Outcomes Study Short-Form 36 (SF-36) Health Survey which is an international standard generic measure of health-related quality of life. This instrument provides an eight scale health profile (SF-36 Subscales) and two Summary Scores representing physical and mental health. The scales measure: Physical functioning (PF), bodily pain (BP), role limitations due to physical health problems (RP); general health perceptions (GH), vitality, energy or fatigue (V), general mental health, covering psychological distress or well-being (MH), role limitations due to emotional problems (RE), social functioning (SF).

While a majority of Older women prefer to complete the surveys by post, some Older women have chosen to remain in the study by completing a shortened version of the survey by telephone interview. For example, in 1999, 9,501 Older women completed the full-length version of Survey 2 and 920 completed a shortened version, over the telephone. Women who answered the short survey were similar to those who answered the long survey on most aspects except they tended to be older and were less likely to have formal qualifications.

As well as the main surveys, participants are invited to participate in sub-studies which address specific issues or target specific groups. For example, sub-samples of older-women with contrasting scores on the DSSI participated in surveys to monitor the change in social support over a three-year period and the relationship between social support and future health. Likewise, samples of women who reported sleeping difficulty and/or sleeping medication use were surveyed to gather more information about their sleep-related symptoms, sleep quality, and their attitudes and behaviours in relation to use of sleeping medications.

Participants are also invited to consent to linkage of survey responses with unit records from the Medicare database. Under present legislation, individual signed consent is required for access to individual data, and approximately half the women have provided consent. This consent enables access to information about type of service, characteristics of the provider, and out-of-pocket costs for every Medicare-eligible service. Aggregated unidentified data are also available for those who have not consented to access to individual records.

The project has been able to retain a very high proportion of the original participants. Among the Younger women, 72% responded to Survey 2 in 2000, a retention rate which compares well with other surveys of this highly mobile age group. Retention rates have been much higher among the Mid-age women; 92% and 85% of Mid-age women respectively responded to Survey 2 in 1998 and Survey 3 in 2001. Of the Older women, 91% responded to Survey 2 in 1999 and 83% to Survey 3 in 2002.

The maintenance of these cohorts will provide a valuable opportunity to examine associations over time between aspects of women's lives and their physical and emotional health. In this way, the study can provide information that will assist the Commonwealth Department of Health and Ageing – as well as other Commonwealth and State Departments - to plan for the future and to develop policies which are most appropriate to Australian women of all ages.

These brief reports have been prepared on the basis of meetings between the research team, and staff of selected Sections and Divisions of the Commonwealth Department of Health and Ageing. Initial discussions, held in October and November 2002, addressed policy needs and their match with existing data. On this basis, specific topics were selected for the preparation of brief syntheses of existing research, supplemented by some new analysis of existing data. Drafts were presented to these same staff in February/March 2003, and the final reports prepared on the basis of feedback from this process. Further analyses can be conducted on request.

Further information is available from Joy Eshpeter, email Joy.Eshpeter@health.gov.au or visit the website http://www.newcastle.edu.au/centre/wha

Younger Women's Aspirations for Work and Childbearing

In recent years, there has been debate over the causes of continuing gender inequality in the workforce. Women still earn less than men, are less likely to be in senior positions, are more likely to have interrupted careers, and are more likely to work in part-time or casual positions. This situation is despite equal opportunity legislation, and the fact that girls consistently perform better at high school than boys do, and are more likely to go on to higher education. It can be asked whether employment inequality is the result of the gendered nature of society, which disadvantages women, or whether it can be traced to women having different life goals and priorities to men.

The gendered nature of society is evident in the life choices of men and women, and the different ways in which they must negotiate individual decisions about work, relationships and family. Clearly, expectations and aspirations for the future guide young women's decision-making. This issue was addressed as part of the Survey 1 and Survey 2 of the Younger cohort. The women were asked a series of questions about what they wanted for themselves at the age of 35. Closed-response items asked them to specify their aspirations for relationship status, children, employment status, and qualifications, and an open-ended question invited them to describe their ideal job at 35.

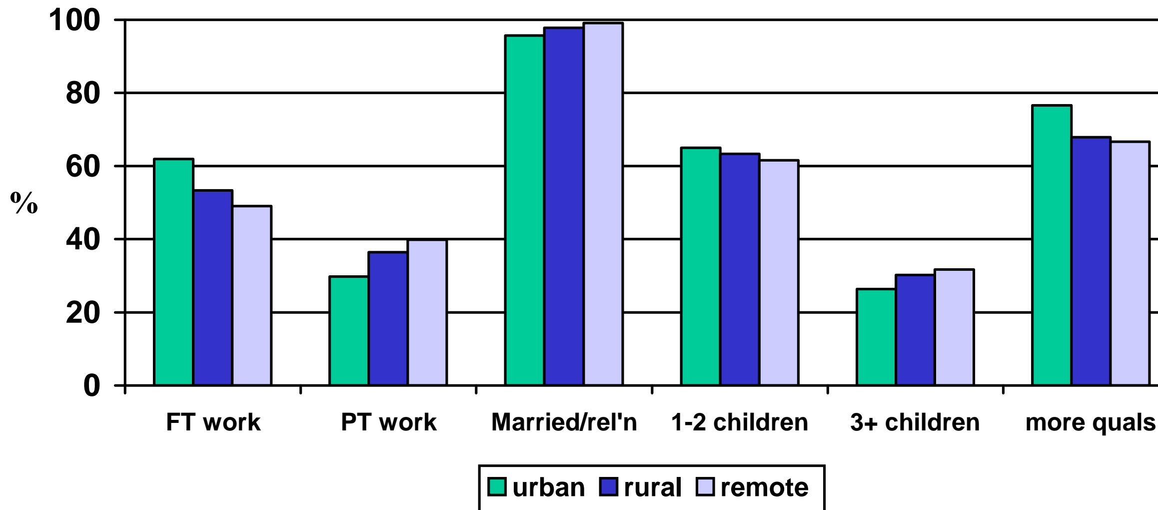
Although young women's aspirations may change over time and do not necessarily determine actual behaviour, they do provide information which is useful both in guiding policy and planning for service provision. They also play a role in understanding the extent to which women's expectations about what is possible in their lives may limit their choices.

Career aspirations and expectations

At Survey 1, 60% of the Younger women indicated that they would like full-time paid work at the age of 35, and 31% wanted part-time paid work. Only 4% envisaged themselves in unpaid domestic work, with the remaining 5% not replying or wanting some other option. The 14,000 individual responses to "When you are 35, what would be your ideal job?" were highly diverse. Young Australian women's career goals include accountant, animal trainer, truck driver, and prime minister. Consistent with this result, 74% stated that they would like to have more educational qualifications than at present, with 19% not sure and 7% definitely not wanting more qualifications. These data suggest a serious commitment to a future in which paid work plays a significant role in their lives.

Further analysis examined differences in aspirations between Younger women who lived in urban, rural and remote locations. Younger urban women were significantly more likely to want full-time paid work, while women in remote areas were most likely to want to be full-time unpaid at home (see Figure 2). Urban women were also more likely than rural or remote women to want further qualifications by the age of 35. These results suggest that rural and remote women's aspirations are somewhat more traditional than urban women's, although the majority still want a job, husband and children at 35.

*Figure 1 Younger women's aspirations for age 35, by area of residence: Survey **1***



It is informative to compare these younger women's aspirations with the reality of the workforce participation of Mid-age women at Survey 1, aged 45-50. Significantly more of the Younger women hoped to work full-time in the future than Mid-age women did in 1996 (see Figure 2).

*Figure 2. Younger women's aspirations for employment at age 35, and Mid-age women's actual work status: Survey 1**.***

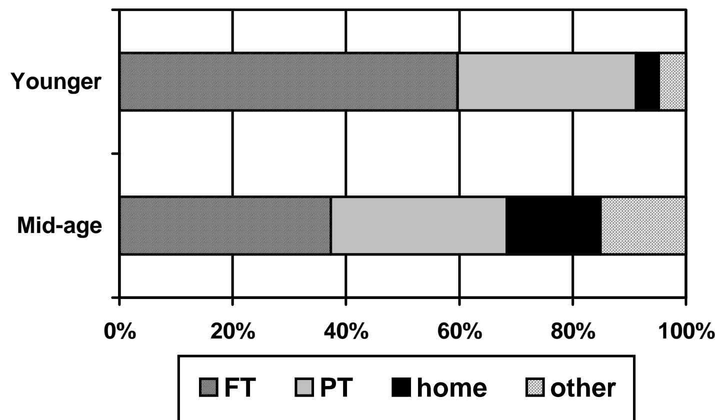
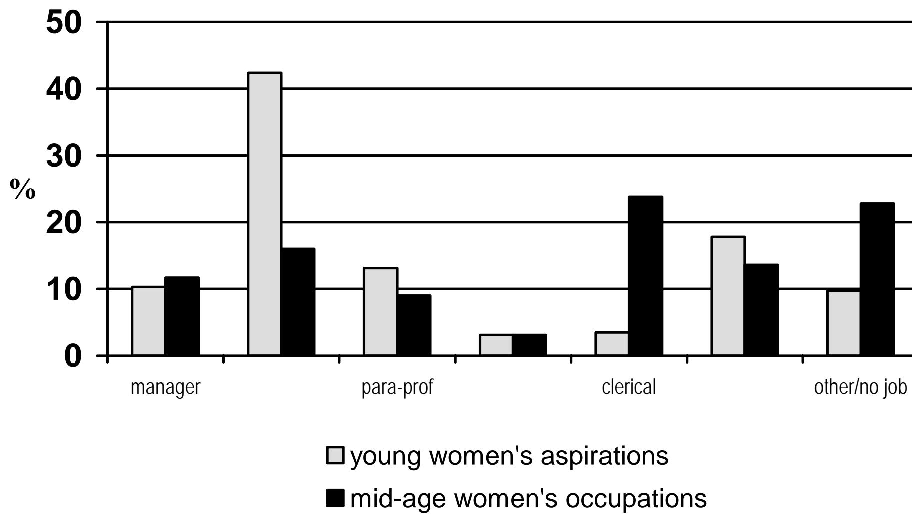


Figure 3 demonstrates that the range of occupational categories occupied by Mid-age women is very different from that to which the Younger cohort aspires. While the majority of all employed women in Australia work in clerical, sales and personal service occupations, Younger women are aspiring to very different occupations. In fact, by far the biggest proportion (42%) aspired to professional occupations.

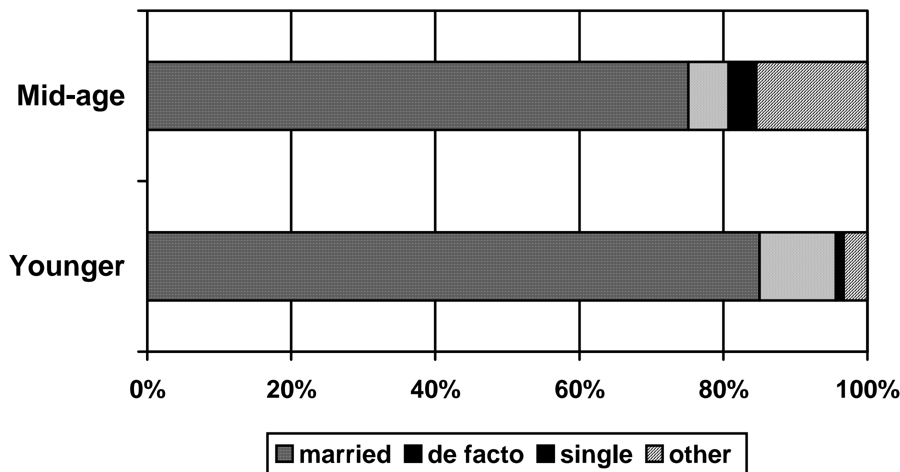
Figure 3. Younger women's aspirations for employment category at age 35, and employed Mid-age women's actual work category: Survey 1.



Aspirations and expectations of family life

It is obvious that this group of Younger women is not solely focused on work and qualifications. Many simultaneously want to be married with children. When asked about their aspirations for relationships, 85% indicated that they would like to be married at 35, while a further 11% wanted to be in a stable but unmarried relationship. Only 1% of the Younger women were definite that they did not want to be in a relationship (with 3% specifying other or failing to answer this item). There were no regional differences in aspirations for relationships, with nearly all women wanting to be married or in a permanent relationship. In comparison with the actual relationship status of the Mid-age group at Survey 1, the main difference is that the Mid-age women are more likely to be separated, divorced or widowed (see Figure 4).

Figure 4. Younger women's aspirations for relationship status at age 35, and Mid-age women's actual relationship status: Survey 1.



The majority of the Younger women wanted children by the age of 35: 65% want one or two children, and 27% would like three or more. Only 8% said they wanted no children at age 35. Rural and particularly remote women were more likely to aspire to a family of three or more children, and urban women to aspire to one or two children (see Figure 1).

It is clear that, given a free choice, the majority of these Younger women want both full-time paid work and family relationships as a significant, ongoing part of their lives. It remains to be seen whether Australian society is able to provide the opportunities for these women to make the choices they want. The progress of the Younger women's aspirations can be examined longitudinally by assessing changes in women's ambitions in later surveys, and exploring the extent to which their actual experiences match these aspirations, as well as testing the hypothesis that discrepancies between actuality and aspiration may have negative consequences for health.

What are Younger women's aspirations for work and childbearing?

Younger women in ALSWH mostly aspire:

- to work full-time in paid employment
- to have a high-status occupation
- to be married
- to have at least one child

More rural and remote Younger women than urban Younger women aspire:

- to have no paid employment outside the home
- to have three or more children

In comparison with Mid-age women's reality, Younger women aspire:

- to work full-time in paid employment
- to work in a professional occupation
- to have fewer children

Younger women's aspirations do not match the current realities of employment for Mid-age Australian women.

Mid-Age Women's Workforce Participation

The context for ALSWH findings

With the ageing of the Australian population, retirement and workforce issues will become increasingly important. Firstly there will be increasingly more numbers, and proportionally more, retired people. Secondly, there is a recognised need to extend people's participation in the workforce beyond the traditional retirement ages (Costello, 2002). Thirdly, there will be increasing need for informal caregivers and volunteer aged care workers.

As the retirement age is pushed further back, and those who are ageing encouraged to remain in their homes and in good health for as long as possible, there is a need to know more about Australian workers' expectations and plans for retirement. In particular, given the dramatic increase in women's participation in the labour force in recent decades, there is a need to know more about the working lives of women, and their retirement intentions.

In Australia, the average retirement age from full time work is 58 for men (ABS, 1997), and retirement has been conceptualised as a doorway through which men pass when they leave the paid workforce. This is not necessarily so for women, for whom average 'retirement' age is 41 (ABS, 1997), and it is particularly meaningless for those who have spent a considerable proportion of their lives out of the paid work force caring for others. The majority of these women have fitted their paid work around their caring responsibilities, moving into and out of the labour force, often returning to paid work after their family has grown. Moreover, if they do return to work, more often than men they accept jobs that are low status and low pay on a casual or part time basis (Mission Australia 2000). A significant proportion of these women, who have become known as the 'sandwich generation' (Brody 1990), then find, often to their dismay, that they must care for elderly parents and perhaps contribute to the day-to-day childcare arrangements of their grandchildren. Women as a group therefore represent a special concern for Western governments already concerned about older people becoming more reliant on the state pension system, either through early retirement, retrenchment or ill health (Auer and Fortuny, 2000).

Retirement, then, is a concept that has been defined according to the male working life. As the working patterns of women are very different to those of men, expectations of retirement are also bound to differ. Diana Olsberg (1997) argues that people contemplating retirement seem to believe that successful ageing will mean keeping physically fit and having enough money to enjoy all the leisure pursuits that are enticing them. But how realistic are these expectations for women facing an economically insecure future? Over the next ten years the spending of 'senior consumers' is predicted to grow by 61%, (Bishop, 2000), but the problem is that this wealth is unevenly spread, particularly amongst women who have not had the benefit of uninterrupted paid work to fund their retirement.

It may be that the cohort of women now confronting retirement will be more disadvantaged than their mothers' generation, even though they have enjoyed greater freedom throughout their lives. Brian English (2000) argues that many of this cohort will face a poverty stricken old age and will be worse off financially than today's generation of older women because this group have missed out on accruing significant superannuation benefits and will not have access to the special benefits that were available to their mothers. They are also likely to face a world where services are based increasingly on a user-pays system – for health care, nursing homes and services. They are also expected to face old age alone. The higher death rates for males, exacerbated by the fact that most of this generation of women married older partners, coupled with high divorce rates for this group, means that almost two million women may be living alone in 20 years, double the present number of elderly single female households.

However, women now approaching retirement may be less likely to need healthcare services to the same extent, or at the same age, as present older women. On the other hand, they may have higher expectations for their health and be more demanding of such services. Those now in their middle age are the Baby Boomer generation - the so-called 'me generation' - who have higher expectations about the quality of services they feel they are entitled to. They also know their rights and will probably be more inclined to push for their rights than their parents' generation (Mackay 1997).

The extent of any new found freedom for women in the pre-retirement years has not been investigated empirically, nor has it been linked to socio-economic indicators. Indeed, if women *are* enjoying their independence in these pre-retirement years, it cannot be assumed that they will necessarily want to retire in their 60s. Nor can it be assumed that they will undertake caring responsibilities, either for ageing, frail husbands and other relatives, or provide childcare for their grandchildren, in the same way as their mothers have done. Their attitudes towards work and retirement will have very significant policy implications.

Women are by no means a homogenous group however. There are important socio-cultural and economic differences between women, particularly between women in city and rural regions, and there is a clear need for further information about the patterns of women's working lives and the factors which influence the decisions women make about paid and unpaid work. Survey data from the Australian Longitudinal Study on Women's Health of relevance to time use, relationships and health have been explored in terms of paid work (eg Bryson and Warner-Smith, 1998; Warner-Smith and Mishra, 2003), locational issues (eg Warner-Smith and Brown, 2002; Brown *et al*, 1999), ageing (eg Byles, 1999; Byles *et al*, 1999; Feldman *et a*l, 2002), and women's multiple roles (Lee and Powers, 2002). They reveal a complexity of attitudes and experiences differing between generations as well as between women in different urban and rural locations.

The further analyses presented in this section of the report below provide additional information about current workforce participation patterns and transitions among women in the mid-age cohort of the study. The investigation of these issues is continuing, and targeted questions will be asked in the fourth wave of the survey for Mid-Age women in 2004.

Mid-age women in the labour force

ALSWH collects detailed data on women's time use. This includes their employment status, occupation, and hours of paid and unpaid work. These data show that despite fears that women in their fifties are moving out of the workforce, Mid-age Australian women are not 'retiring' in great numbers, as Table 1 illustrates.

Table 1. Labour force status of mid-age women, Surveys 2 and 3

	Survey 2 1998	Survey 3 2001
Not in the labour force	19.9	21.5
Employed	78.6	77.1
Unemployed	1.5	1.3

The figure below indicates that many women increased the extent of their paid work commitment between Survey 2 and Survey 3. These women are aged 50-55 in 2003, and are thus entering the stage at which they are contemplating their lifestyle options for their 60s, 70s and beyond.

Figure 5. Labour force transitions of Mid-age women, 1998-2001

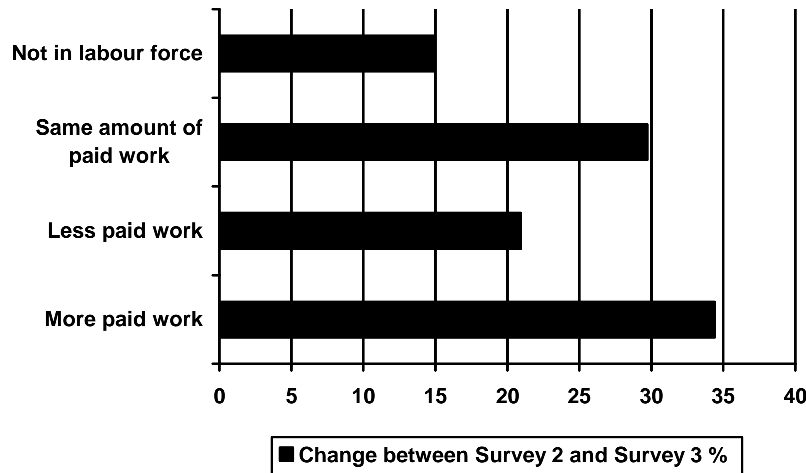


Figure 5 shows that between Survey 2 and Survey 3, approximately 35% of mid-age women took on more work. This included those who were already in paid work, either full or part-time, and who increased their hours of work, as well as those women who were not in the labour force or were unemployed and who returned to paid work. About 30% of women maintained the same level of paid work between Surveys 2 and 3, and just over 20% of women reduced their hours of paid work.

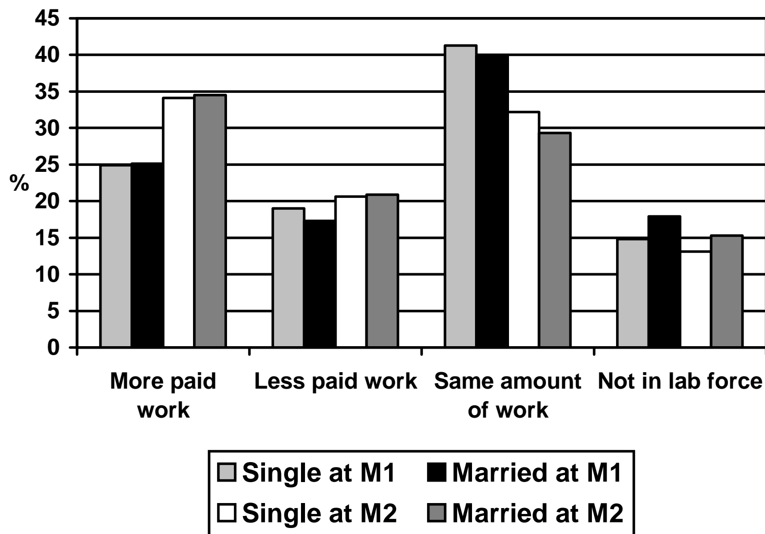
Workforce participation and marital status of Mid-age women

At survey 1 in 1996, 20% of Mid-age women were single (i.e. single, divorced, widowed) and 80% were married. The percentage of single women increased to 33% by Survey 3. There were however only minor differences in married women's patterns of labour force participation compared to those of single women.

Predictably, at each Survey, there were more married women than single women who were not in the workforce. Also, married women were slightly more likely to have reduced their hours of work between Surveys. However, there was no difference in the marital status of women who took on more paid work in the period between Survey 1 and Survey 2 (see Figure 6).

These findings are consistent with the substantial changes in Australian women's employment over the last forty years. Post World War II, less than one third of women were employed, and less than a third of the employed group were married. As has been the case for several decades now, the majority of employed Australian women are married, and the difference in the workforce participation rate for single and married women is small.

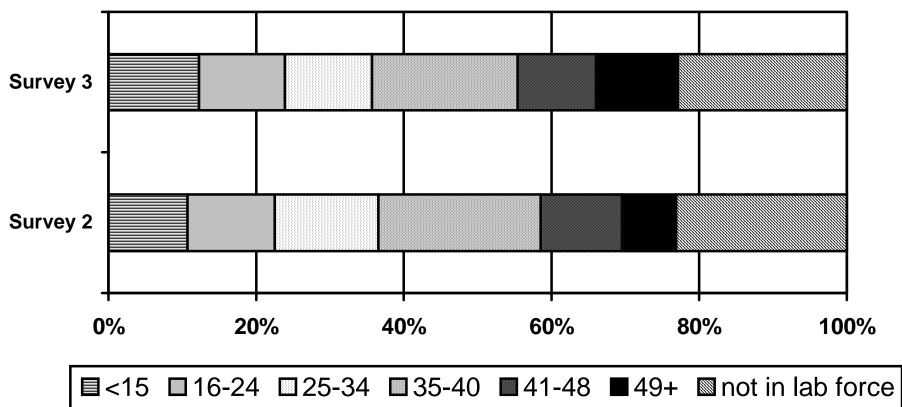
Figure 6. Workforce transitions of single and married women (%)



Changes in hours of work

Figure 7 shows changes in Mid-age women's hours of paid work between Survey 2 and Survey 3. Notably, the figure shows that there has been a significant increase in the percentage of women working more than 49 hours per week.

Figure 7. Changes in Mid-age women's hours of work between Surveys 2 and 3



The ALSWH data also showed that women who increased their hours of work were more likely to be in higher socio-economic groups.

Women's multiple roles

Mid-age women who provided care for someone else were more likely not to be in paid work, or to have shifted between being employed and being out of the paid workforce. Women who remained in full-time work between Surveys 1, 2 and 3 were the least likely to be providing regular care or assistance to another person.

Women who said at Survey 2 that they were regularly providing care and assistance to someone were more likely to have remained out of the labour force between Survey 1 and Survey 2 or to have moved out of the labour force during that time. If they had been working full-time, they were likely to have reduced their work hours.

Between Surveys 2 and 3, women providing care or assistance were again more likely to have been out of the workforce or to have moved out of paid work. However, there were also some women who had taken on some paid work in that period, suggesting that they could have been caring for someone who had perhaps since been moved into more formal care.

Despite these trends, there were women in every workforce category who were looking after someone who was frail, ill or disabled. Approximately 15% of all employed Mid-age women in the study, irrespective of their hours of work, were providing care for an elderly person or someone in poor health at the time of Survey 3.

At Survey 1, 19% of carers (compared to 22% of non-carers) worked more than 40 hours per week in addition to their caring responsibilities. Mid-age carers were significantly more likely to report finding it either "impossible" or "difficult" to manage financially. Careers, employment and finances were strained and in many instances respondents were unable to seek paid employment or were forced to leave satisfying careers. For example:

> *I had to leave school at a young age due to my mother's poor health... I would still love to learn a lot more but due to my both parents' ill health my time is very limited between visits to my parents, which is every other day.*

Some women did combine work and caregiving, though this appeared difficult to manage, and several respondents described a sense that their caregiving role interfered with their ability to perform well at work. For example:

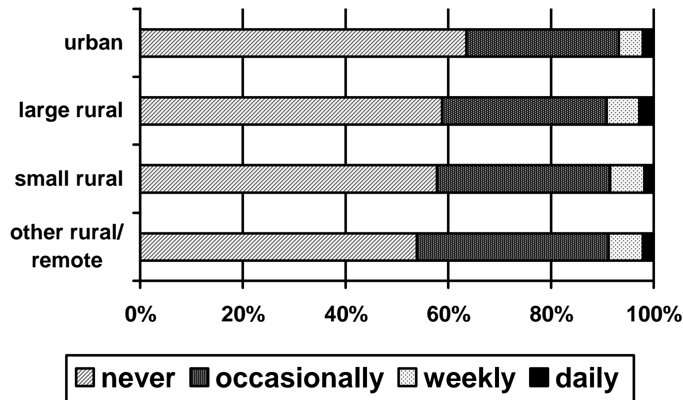
> *I often find the stress/lack of sleep affects my diabetes and this in turn occasionally affects the level of my work as an RN and I feel that I am not functioning to my full capacity, and could maybe at some time lose my job. It is not mistakes in my work just the fact that I am working much slower than others at times and I lose confidence in myself.*

Some of those who were unable to work in paid employment reported that finances were strained by the reduced income and by increased family expenses associated with caregiving. Several Mid-age women expressed a sense that family caregivers were making a valuable but unappreciated contribution to the country's health care system:

> *I do the work of an occupational and physiotherapist, nurse, housewife, psychologist, chief cook and bottle-wash, gardener and finance manager and for that I receive $57 a fortnight, $28 a week. It's cruel that "carers" have so little value in the Government's eyes. My job as carer is 24 hours a day every day with no respite, no holidays and yet I'm saving the Government thousands of dollars as are many other carers because we do CARE. We've been in situations where there's not been enough money to buy food and we've had to live on what meagre items were in cupboard.*

A great many Mid-age women also provide childcare, for their own grandchildren, or for someone else's children, but there are differences by area of residence. Overall, about 40% of Mid-age women provide childcare at least occasionally.

Figure 8. Mid-age women providing childcare



Satisfaction with hours of work

At Survey 2, Mid-age women were asked whether they were happy with their hours of work. The data show that generally women appear to want to be in paid work, but are not happy when they are working long hours.

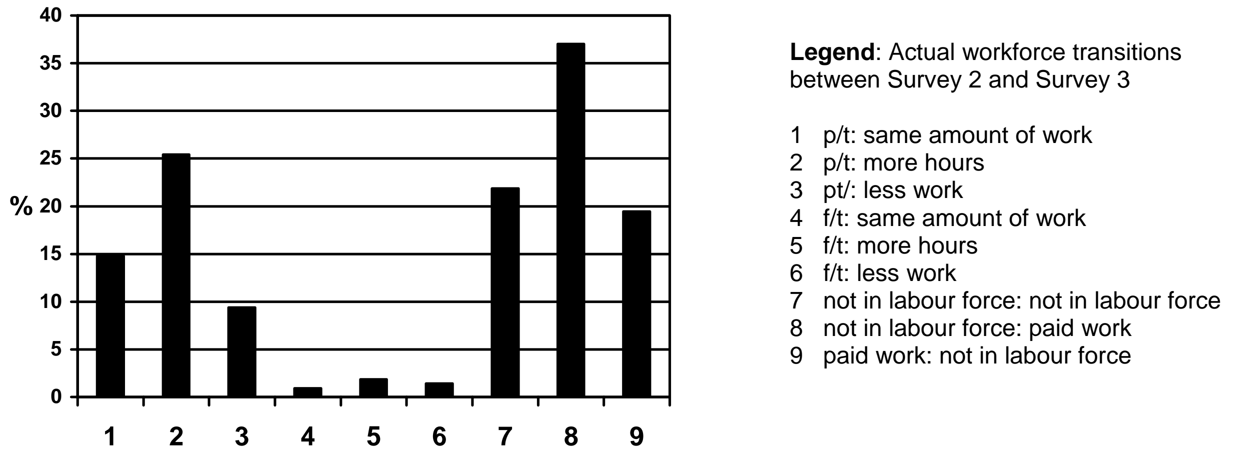
The women who were most happy with their hours of work at Survey 2 were those who had remained in part-time work between Surveys 1 and 2, followed by those who had been working part-time and were working more, and those who had gone back to work after having been out of the labour force or unemployed.

Those who were least happy were those who had been working full-time at Survey 1 and had increased the amount of their full-time work by Survey 2, followed by those who had been in the labour force at Survey 1 but were not working at Survey 2.

Respondents were also asked whether they would like to do more hours of work. At Survey 2, the women who were most likely to say they would like more hours of work were those who had been in paid work at the time of the first survey but had subsequently moved out of the workforce between Surveys 1 and 2, followed by those who had reduced their hours of part-time work during the inter-survey period. Women who remained out of the workforce, and those who weren't in paid work but became employed were also more likely to say they wanted to work more hours.

Data on transitions between Surveys also reveal the extent to which women who aren't happy about the amount of work they are doing, whether too much or not enough, actively change their situation. For example, Figure 9 below indicates that almost 40% of women who were not in paid work at Survey 2 and had found work by Survey 3, had said that they wanted to be working. Twenty-five per cent of women who had been working part-time and had increased their hours by Survey 3, had said at Survey 2 that they wanted more work.

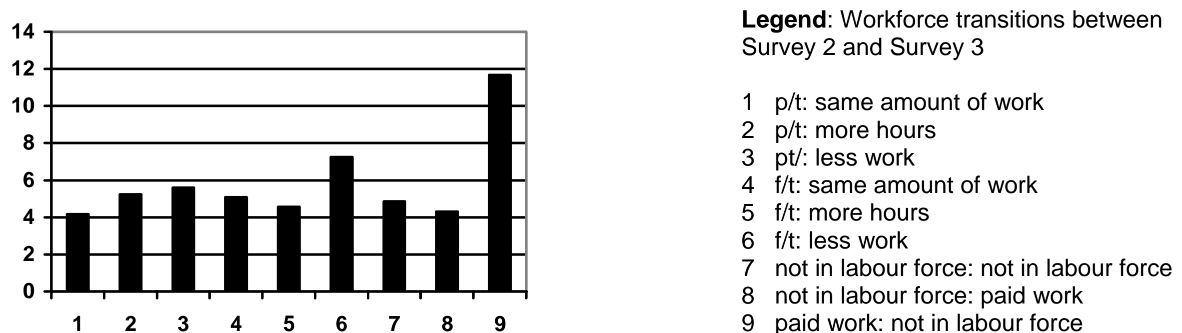
Figure 9. Workforce transition of Mid-age women who said at Survey 2 that they would like more hours of work



Partner's retirement

An obvious question is the extent to which a partner's involvement in paid work influences the decisions women make about their labour force participation. From the data presented in Figure 10 (below), it seems that there is more likelihood of women moving out of the labour force if their partner has retired in the previous twelve months. It is also possible that women who are working full-time may reduce their hours of work when their partner retires.

Figure 10. Workforce transitions of women whose partner retired in the previous twelve months



Associations between employment and women's health

Employment status and women's health

At Survey 1, the self-reported health of employed women was better than that of women who were not in paid work (Table 2).

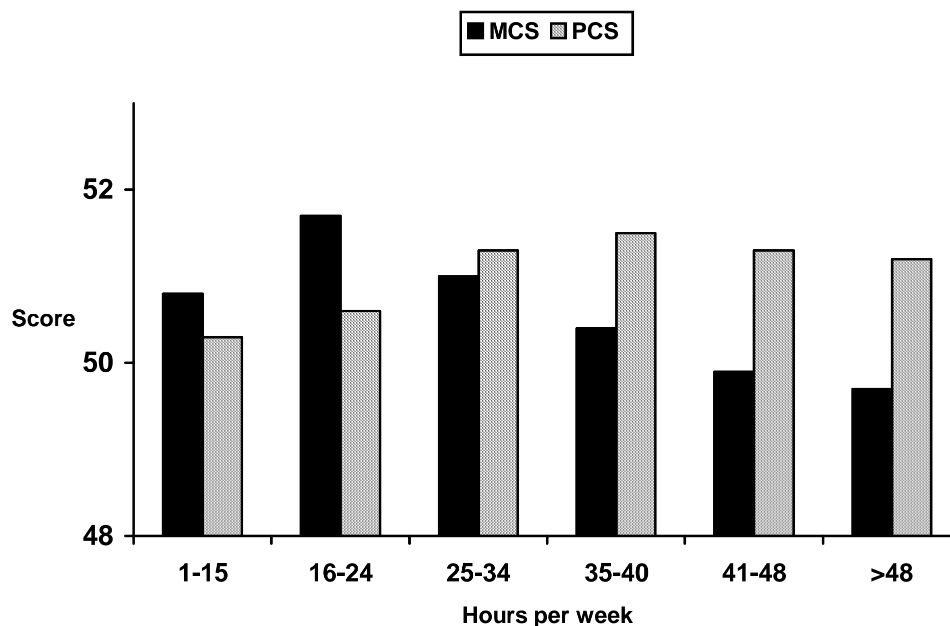
Table 2. Self-rated health of Mid-age women, Survey 1

	In paid work	Not in paid work
Excellent	15.0	10.0
Very good	39.0	30.0
Good	39.0	41.0
Fair	7.0	15.0
Poor	0.6	3.5

Hours of paid work and women's health

Figure 11 shows the SF-36 scores for both physical health (PCS- Physical Component Summary score) and mental health (MCS – Mental Component Summary score) of employed Mid-age women according to hours of paid work. Better mental health for employed Mid-age women appears to be associated with part-time work of around 18-24 hours per week. However, women working full-time have better physical health. Taken together, these results suggest that having about 25-34 hours of paid work per week is best for Mid-age women's health.

Figure 11. Physical health score (PCS) and mental health score (MCS) of Mid-age employed women according to hours worked, Survey 1



Generally it seems that Mid-age women want to be in paid work, but are not happy when they are working long hours. At Survey 2, respondents were asked:

Are you happy with the number of hours of paid work you do?

Response options were: *Yes, happy as is; No, would like to do more; No, would like to do less*

The results show that the mental health of Mid-age women who are satisfied with the hours they are working is better than those who are unhappy about the amount of their paid work (see Figure 12).

Figure 12. Mental health of Mid-age women according to satisfaction with hours of paid work, Survey 2

Workforce transitions and women's health

The workforce transitions data, some of which have been discussed earlier in this report, show the decline in women's **physical health** over time which is to be expected and has been reported in previous ALSWH analyses. However, they also show that the decline between 1996 and 2001 was minimal. There was little difference in physical health associated with any particular labour force status or transition, with the exception of women who were out of the labour force or unemployed at some time between surveys. The lowest scores were recorded by women who were not in paid work and who remained out of the labour force. Although about one quarter of the cohort were in that category (N[M2-3]=1323), the direction of the causality cannot necessarily be assumed.

However, associations between women's **mental health** and workforce participation appear to be extremely complex. They are not reported here as there is a need for further analyses. It

has already been shown[1] that the health of mid-age women is optimised when they have more than two social roles and given the complexity and diversity of women's lives, it is likely that their mental health is being impacted by multiple factors of which paid work is only one. The investigation of links between women's labour force participation and their physical and mental health will continue to be pursued through ALSWH longitudinal data.

Workforce participation and withdrawal among Mid-aged women

- workforce transitions and retirement intentions of mid-age Australian women are significant issues which will be investigated further through ALSWH
- mid-age women are not 'retiring' from the labour force but appear to be strengthening their attachment to paid work in their late forties and early fifties
- marital status appears to make little difference to mid-age women's labour force participation
- there has been an increase in the hours worked by mid-age women
- this increase is particularly marked among women who are working more than 49 hours per week
- mid-age women who provide care for someone else are less likely to be employed
- employed mid-age women who provide care for someone else are more likely to subsequently move out of the labour force
- mid-age women are somewhat more likely to leave the paid workforce in the twelve months after their partner retires
- employed mid-age women have better self-rated health than those who are not employed
- better health for employed women aged 45-50 appears to be associated with working around 25-34 hours per week
- the health of mid-age women who are satisfied with the hours they are working is better than those who are unhappy about the amount of their paid work
- the physical health of mid-age women who are continuously in employment is better than those who are not in the labour force or who have a period out of the workforce, but causality cannot be assumed
- associations between women's mental health and employment transitions are complex and in need of further investigation

[1] Lee C & Powers JR. Number of social roles, health and well-being in three generations of Australian women. *International Journal of Behavioural Medicine*, 2002; 9(3):193-215.

Older Women and Healthy Ageing

Healthy Ageing is a concept that recognises that most older people are – and want to remain - independent and active, and that they generally have an excellent quality of life, and contribute substantially to the quality of life of others and to the productivity of society as a whole. The Survey 1 data from the Older women provided a picture of ageing that strongly supports this concept of healthy ageing.

The Older women in ALSWH represent a "robust" population of women who have lived through experiences of the depression, global war, and overwhelming technological and social changes. Most (90%) had participated in paid work at some time during their lives. Many of these had worked as administrative assistants (39.2%), while 20.2% classified their main occupation as "professional", "paraprofessional" or "management". The remaining 28% classified their occupation as "trade", "machine", "manual" or "other".

Most (91.3%) had given birth to at least one child, and 23.8% had given birth to four or more children. Women living in rural and remote areas were more likely to have four or more children than women living in urban areas.

At the time of Survey 1 these women were aged between 70 and 75 years. Many (40.6%) lived alone, and most of these women were widows. Only 13.9% of women lived with someone other than their spouse or partner. An overwhelming 93.6% of women felt that they made their own decisions about their life.

The women were also more likely to be caring for someone else than being cared for themselves at Survey 1: 17% of women reported they currently cared for another person because of that person's long-term illness and disability, and only 8% needed such care for themselves. Many cared for husbands who were in poor health and described this as the "main occupation" in their lives; a small number cared for their elderly mothers. Other women described the loss that can be felt when they no longer hold the role of carer.

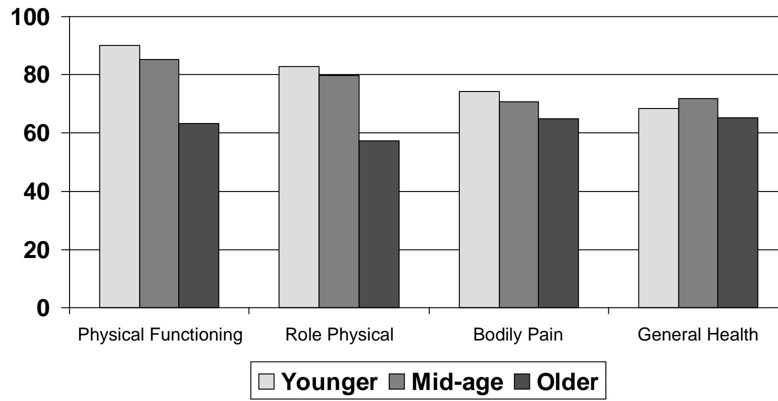
Overall, the Older women in the study represent a large cohort of mostly healthy women. Comparisons with the 1995 National Health Survey and the 1998 survey of Disability, Ageing and Carers indicate that the women are reasonably typical in terms of the mean SF-36 subscale scores for women of their age, and in the proportion of women who require assistance with everyday activities. Over one-third of the women rated their health as excellent or very good and only 4% rated their health as poor. Fifteen percent rated their health as better than one-year previously.

Many women described themselves as being "*in really good health for my age*".

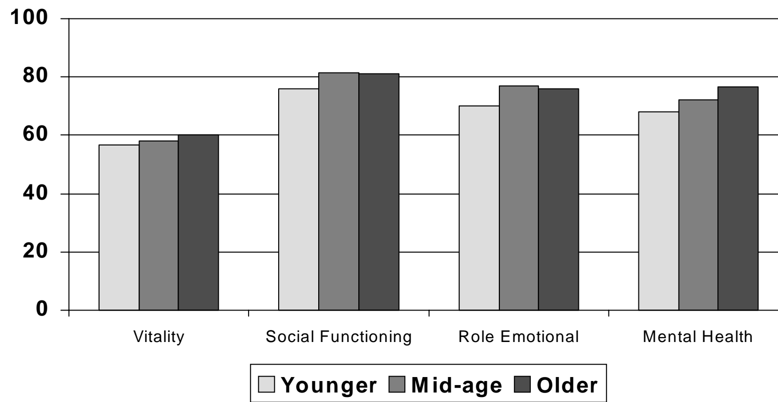
Survey 1 analyses indicated that while Older women's physical health related quality of life (as measured by SF-36 subscales) was poorer than that for the younger cohorts, their mental health related quality of life was greater. Figure 13 shows this graphically, with higher scores on all subscales indicating better functioning.

Figure 13. SF-36 subscales scores by age cohort: Survey 1.

Physical Health Subscales



Mental Health Subscales



The Healthy Ageing Agenda

In promoting healthy ageing, the current agenda considers five main aspects:

- ❖ Nutrition: oral health, diet, obesity
- ❖ Physical activity: for cardiovascular health, strength training and falls prevention, and emotional and social well-being
- ❖ Health Behaviours, Preventive Services, and Medication use
- ❖ Social support/isolation
- ❖ Vulnerable groups

The Australian Longitudinal Study on Women's Health demonstrates clear relationships between these considerations and continued well-being into older age. Findings surrounding issues of nutrition, physical activity, health behaviours and medication use are discussed below. Discussion of the findings on social support and vulnerable groups of women appears in subsequent sections of this report.

Nutrition

In Survey 1, many of the Older women (47.4%) said they would like to weigh less than they currently do. This desire is consistent with BMI scores that place 33.8% in the overweight and 13.9% in the obese range. Conversely, 8.6% were underweight.

Scores on the Australian Nutritional Screening Initiative (ANSI) checklist highlight the risk of poor nutrition for these older women. While 48% of women scored in the "good" range (score 0-3), 23% were classified at moderate risk (4-5), 18% at high risk (6-8), and 12% were in the very high risk category (9-12). The data are shown in Table 3.

Table 3. Reported prevalence of individual nutrition screening items (ANSI) and ANSI scores: Older cohort, Survey 1.

Item	Prevalence* (%)
Changed diet due to illness	27
Do not eat at least 3 meals a day	8
Do not eat fruit or vegetables most days	3
Do not eat dairy products most days	13
Have 3 or more alcoholic drinks a day	6
Do not have 6 to 8 cups of fluid most days	11
Have teeth, mouth, swallowing problems	8
Do not have enough money to buy food	4
Eat alone most of the time	39
Take 3 or more prescribed medications	45
Lost 5kg without wanting to	6
Gained 5kg without wanting to	10
Not always able to shop, cook, feed myself	6
ANSI score (range 0-29)	
0-3 low risk	48
4-5 moderate risk	23
≥6 high risk	30

* weighted to allow for over-sampling of women living in rural and remote areas

Analysis of responses to individual items in the Australian Nutrition Screening Initiative (ANSI) checklist, and ANSI and Nutrition Screening Initiative (NSI) scores, completed by 12,939 women at Survey 1, were found to be associated with measures of health and health service use. Women with high ANSI scores had poorer physical and mental health-related quality of life and higher health service use, and were less likely to be in the acceptable weight range.

These results build on considerable literature establishing a link between nutrition and poor health outcomes. They also add substantially to less well established estimates of under-nutrition in community and patient samples. However, a major limitation in the interpretation of the findings relates to the questionable validity of available brief nutrition screening instruments such as ANSI. A great deal of further research and development is required to create a reliable and valid screening instrument and to demonstrate the effectiveness and utility of such screening in community and health care settings.

Physical Activity

At Survey 1, one fifth (20.1%) of Older women said they participated in vigorous exercise, such as swimming or jogging, at least once per week, and 79.4% said they regularly participated in more moderate exercise such as walking, gardening or lawn bowls.

> *I do a lot of line dancing. 3 or 4 times a week which keeps me fit I also walk each morning but not as far now as I used to do. Also cannot walk as fast.*

In 1999, a series of focus groups, involving both men (n=35) and women (n=46) over 60 years of age, was conducted in order to explore older people's attitudes to, practices, and perceptions of physical activity. The participants were recruited though ALSWH, senior organisations, and personal contacts. These older people described a wide range of current activities. The most common were walking, gardening and housework. The main motivations for activity were health, social support, doing something useful, environmental factors and avoiding negative stereotypes of ageing. Participants were concerned that they should not become like "*other old people*" who, they believed:

> *…stay inside all day, they lose their ability to converse. They are not involved in anything… I have a sister-in-law like that, and she is the saddest lady that you could ever find…we all dread the day when we can only sit in a chair…we feel the longer you use everything, the longer it will keep going.*

Perceived barriers included poor health, no-one to exercise with, inappropriate or unsafe environments and facilities, and lack of interest. Participants found existing media messages confusing, but supported the idea of campaigns encouraging older people to be active.

The relationship between physical activity and mental health related-quality of life among Older women was explored by using Survey 1 and Survey 2 data to provide both cross-sectional (n=10,063) and longitudinal (n=6,472) perspectives. Cross-sectionally, higher levels of physical activity were associated with higher scores on the SF-36 Mental Health Summary Score and all the SF-36 mental health subscales (Social Functioning, Role Emotional, and Mental Health). Longitudinally, women who made a transition from some physical activity to none generally showed more negative changes in mental health-related subscales than those who had always been sedentary, while those who maintained or adopted physical activity had better outcomes (see Table 4). These effects were found even when the effects of physical health were statistically controlled. Physical activity among older women is associated with emotional well-being over and above the effects of physical health, supporting the need for the promotion of appropriate physical activity in this age group.

Table 4. Change in the mental health component score of the SF-36, and the four "mental health" subscales, by physical activity transition category (n= 6472), after adjustment for physical health: Older cohort, Surveys 1 and 2.

Measure	Sedentary (N=883)	Exercise Cessation (N=1,103)	Exercise Adoption (N=654)	Exercise Maintenance (N=3,832)	F
Mental Health Summary Score	0.26	0.14	0.73	0.44	0.87
Subscales:					
Vitality	-5.23	-7.21**	-1.70***	-1.71***	43.52*
Social Functioning	-5.19	-8.51*	1.25***	0.87**	66.50*
Role Emotional	-5.81	-3.51	-1.30*	0.37***	10.39*
Mental Health	-0.12	-0.56	1.38*	0.71	4.87*

$^*p<.002$

Health Behaviours

The prevalence of hazardous or harmful **alcohol use** among the Older women was minimal. While 34.7% of Older women described themselves as "non-drinkers" and a further 28.5% reported they "rarely drink", only 7.6% reported they drank more than the recommended two standard drinks in a day. Similarly, **smoking** is uncommon among Older women, with only 5.8% describing themselves as "regular" smokers, and 29.3% ex-smokers.

Medication Use

Medication use was common among the Older women. At Survey 1, 82% percent had taken at least one prescribed medication over the previous month, and 27.4% had taken four or more medications. Further, 40.7% of women used over-the-counter medications. Current use of **Hormone Replacement Therapy** was reported by 10.8% of the Older women at Survey 1, and a further 11.5% were not current users but had used HRT in the past.

Of the women who reported they had ever used HRT, approximately one-third had used HRT for less than one year, one-third had used HRT for 1-4 years and one-third had used HRT for more than 5 years. HRT use was statistically significantly associated with osteoporosis ($p<0.0001$); compared to non-users, women who either previously or currently used HRT were two to three times more likely to have been told they have osteoporosis. Current HRT use was also strongly associated with vaginal discharge and leaking urine ($p<0.0001$). Both current and past HRT use were significantly associated with the number of visits to a GP in the past year. Women using HRT were more likely to be better educated, with lower BMI, and more likely to exercise. However, subsequent changes in the evidence relating to the risk of HRT use, and changes in community perceptions, are likely to have had a major impact on not only the number of women using HRT but also the demographic characteristics associated with use or non-use.

Prescription medications for "nerves" and "to help you sleep" were used by many women in the study. At Survey 1, medications for "nerves" were used by 10.9%, and medications "to help you sleep" by 16.9%, of the Older women. There was a strong trend for lower use by women living in remote areas.

At Survey 2, 15% of the Older women reported use of sleeping medication. There was a high level of agreement between responses to Surveys 1 and 2, indicating that the use of these medications is often long-term among women in this age group. At both Survey 1 and Survey 2, scores on SF-36 subscales were significantly lower for women using sleeping medication than for other women.

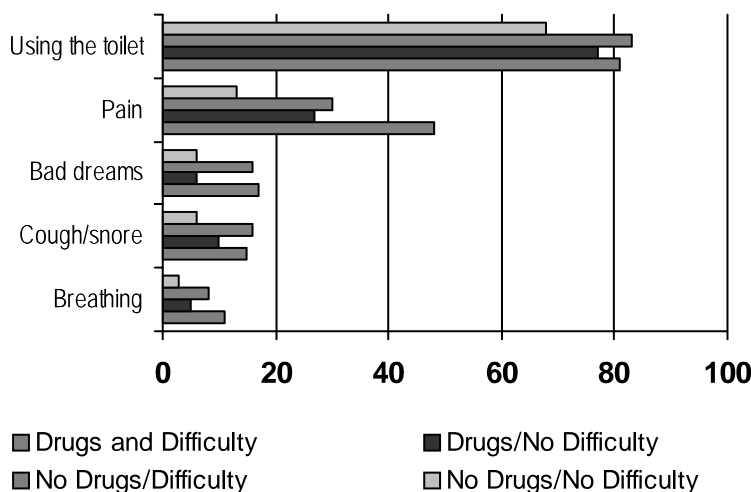
The use of sleeping medication at Survey 1 predicted lower scores on five of the eight SF-36 subscales at Survey 2 (physical and social functioning, general mental health, bodily pain, and vitality), even after adjustment for a range of physical conditions. The use of sleep medications were also significantly associated with increased risk of falls and accidents, and a higher number of visits to a general practitioner.

In 2000, one year after Survey 2, women were selected to participate in a detailed substudy of sleeping difficulty, sleeping medication use and associated health outcomes. These women were selected from four groups, defined according to their responses to Survey 2:

1) used sleeping medications and reported difficulty sleeping
2) used sleeping medications, but did not report difficulty sleeping
3) did not use sleeping medications, but reported difficulty sleeping
4) did not use sleeping medications, and reported no difficulty sleeping.

A total of 1011 women completed the substudy. These women provided rich information on factors underlying women's sleeping difficulty and their responses to this problem, including the use of medications. For instance, around one-quarter (27%) of women with any type of sleeping difficulty in the substudy said their problems started when they were widowed; 20% said problems started during a period of illness; 8% after moving house; 5% after an accident; and 10% after some other major event. Sleeping difficulty was also associated with a range of other symptoms (see Figure 14), most notably having to get up to use the toilet, pain, breathing discomfort, coughing or snoring, and bad dreams.

Figure 14: Percentage of Older women who report that specific symptoms or activities interfere with sleep, according to sleeping-difficulty category: 2000 Sleep Substudy



The substudy included more detailed measures of sleeping difficulty and sleep quality than had been included in Survey 1 or Survey 2. These measures included the Nottingham Health Profile Sleep Subscale (NHP), the Pittsburgh Sleep Quality Index (PSQI), and the Epworth Sleepiness Scale (ESS), three well-validated indicators of sleep quality and of poor sleep.

All three measures of sleeping difficulty were associated with changes in SF-36 physical and mental component scale scores (after adjustment for confounders including physical health and depression) – poor sleep was associated with greater decreases in subscale scores.

A majority of women with sleeping problems in this substudy had used prescribed medications to help them sleep at some time. Of those who reported current use of medications at Survey 2, 60% were taking these medications three or more times per week. Women mostly used hypnotic sedatives including Temazepam, Nitrazepam and Oxazepam, with this class of drug accounting for 87% of medications in use. A smaller proportion of women used antidepressants or other prescribed medications to help them sleep.

The Healthy Ageing Agenda and Older women's health status

In support of Healthy Ageing:

- The Older women in the study are mostly healthy and have high self-rated health.
- Compared to Younger and Mid-age women, Older women have poorer physical health-related quality of life, but better mental health-related quality of life.
- Most women participate in moderate exercise at least once per week.
- On qualitative analysis, the main motivations for activity were health, social support, doing something useful, environmental factors and avoiding negative stereotypes of ageing.
- Physical activity among older women is associated with emotional well-being over and above the effects of physical health.
- Very few Older women engage in harmful alcohol use or smoking.

Opportunities for Health Promotion:

- Many of the older women could be classified as overweight or obese.
- Scores on the Australian Nutritional Screening Initiative (ANSI) checklist highlight the risk of poor nutrition for these older women.
- Prescription medications for "nerves" and "to help you sleep" are used by many Older women.
- The use of sleeping medication is associated with poorer health-related quality of life, with increased risk of falls and accidents, and with more GP visits.
- Sleeping difficulty and poor sleep quality are both associated with poorer health-related quality of life, although use of medications appears to have greater association than sleeping difficulty.

Of uncertain value for Health in Ageing:

- Only a small proportion of Older women used HRT and many had used HRT only for a short period.

Social Support and the Health of Older Women

Through their comments, many women emphasised the importance of maintaining active lives and participating in their families and communities.

> *Although I am not a well person, it is possible to have a diversity of interests to keep your brain active, even if you are unable to participate in the more physical activities*

> *I am a very independent 74 year old with lots of interests including a part-time job, a voluntary job, play lots of bridge, on the board of the Bowls club – and I think this is the answer to keeping fit and well.*

Women described their contribution to volunteer groups (eg. Meals on Wheels), committees, community projects, and the lives of their extended families.

> *If more people had an interest and something to do they would have less complaints and would have less tablets prescribed by doctors …. I do dislike old age, so I do not think I am old, I think young.*

Some women were also concerned about the value and place of older people in the community.

> *Generally I am satisfied but one has to work hard to look after oneself and maintain a reasonable lifestyle and not be swamped by increasing age and less money and alone and less IMPORTANCE* (original emphasis) *in the community.*

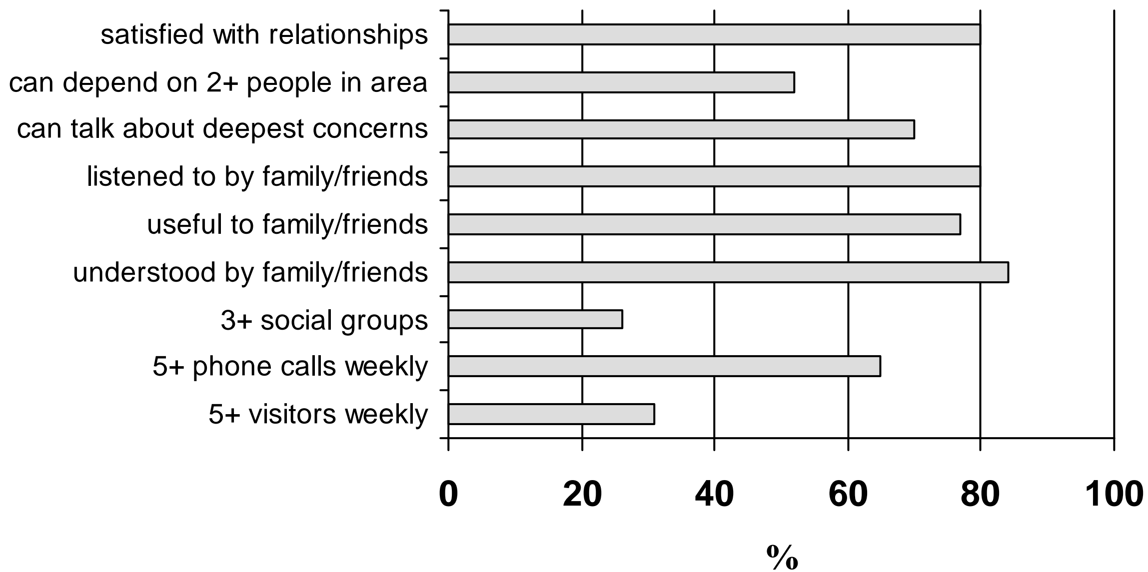
The maintenance of healthy social environments for older people is of increasing importance as the Australian population ages. For women, the issues of social support and ageing are doubly relevant, because of longer life expectancy and greater probability of widowhood. Consequently, a greater emphasis is now being placed on identifying how social supports within the community can promote independence, health, and quality of life of older women. Social support in this context refers to informal family and social networks that meet a person's emotional, network, esteem, instrumental and informational needs, and thus create a feeling of well-being and support.

Social Support

Social support was measured at Survey 1 and Survey 2 using the revised 11 item Duke Social Support Index (DSSI). Additional measures of social support were added at Survey 2, and included measures of instrumental support and neighbourhood satisfaction. The DSSI assesses social networks and satisfaction with support, and provides one single score ranging from 11 to 30. Using this DSSI score, levels of support were classified as *low* (score 11-23), *fair* (24-26), *high* (27-29), or *very high* (30-33).

Of the 12,458 Older women who completed all of the DSSI items at Survey 1, 8% were classified as having low social support, 14% as having fair support, while 39% had high and 39% had very high social support. These findings were supported by responses to other items, with a significant number reporting indicators of high social support (see Figure 15).

Figure 15: Percentage of Older women who report a range of indicators of social support: Survey 2.



DSSI score at Survey 1 was positively associated with being well educated, being currently married or widowed, finding it easier to manage on available income, and being Australian born. Social support scores were also associated with better health-related quality of life, as measured by SF-36 subscales. Women with higher social support also tended to rate their general health more highly, and had fewer chronic conditions and symptoms, took fewer medicines, were less likely to need help with daily tasks, and had fewer GP visits. Social support was positively correlated with satisfaction with the most recent visit to a general practitioner. Women with higher social support were less likely to report significant life events, including major illness or injury, major decline in the health of their spouse, widowhood or conflict with their children.

Maintenance of social support

Response to Survey 1 and Survey 2 showed that the majority of older women had consistently high DSSI scores over time. DSSI score at Survey 2 was within two points of the score at Survey 1 for 72% of women. However, DSSI score at Survey 2 was more than two points lower than at Survey 1 for 17% of women, and more than two points higher for 11% of women.

Compared to Australian-born women, women who were born overseas were more likely to have reduced DSSI scores (indicating lower social support) at Survey 2. Similarly, women who were single, separated or divorced at Survey 1, had lower scores than married or widowed women. Those who had sight, hearing or speech problems at Survey 2 were also more likely to have had a decrease in DSSI scores from Survey 1 to Survey 2 when compared to women who did not report these difficulties. However, DSSI scores tended to improve if there was also an improvement in SF-36 subscale scores between surveys. Social support also improved with higher instrumental support scores and neighbourhood satisfaction scores, and following death of spouse (within 3 years before Survey 2).

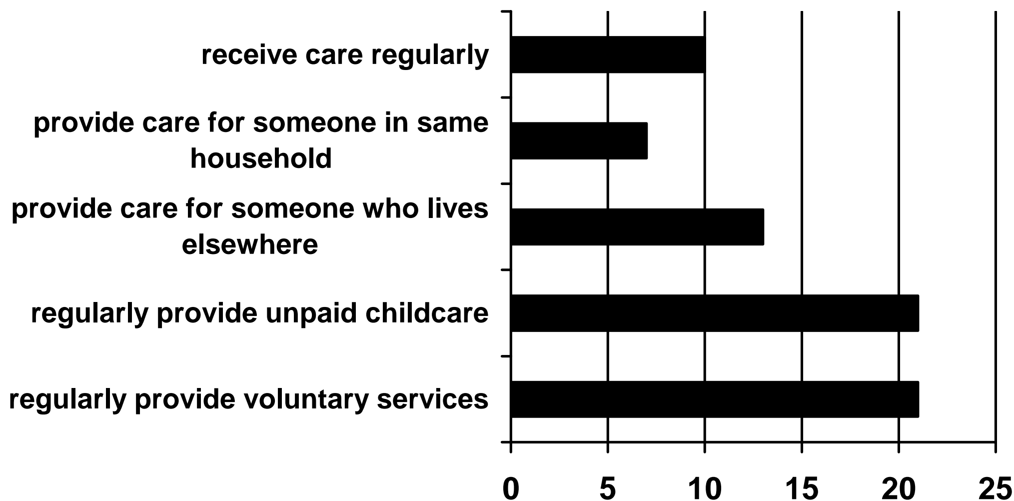
A substudy was carried out, involving two follow-up surveys to Survey 1 (conducted in 1997 and 1998). This substudy was undertaken to assess changes in social support, and to identify

the impact of lower and higher social support on the health and personal well-being of the Older women over time.

Of the 573 participants in the substudy, 208 women had higher DSSI scores at the follow-up surveys than at Survey 1, while 365 women showed decreases in DSSI. Over the three years, 43% of those with low support at Survey 1 had increased social support scores, while only 4% of those with high social support had decreased scores. Despite these changes, those with low support at Survey 1 still had significantly worse health-related quality of life on substudy measures of DSSI than those with high support. This effect was particularly true in regard to the women's mental health-related quality of life, which suggests that social support may confer greater benefits for the mental functioning of older women than for their physical health.

The Older women also provide significant amounts of social and practical support. While it is frequently assumed that older Australians are primarily recipients of both formal and informal support, Figure 16 shows that older women are more likely to be providers than recipients of support of various kinds.

Figure 16. Percentage of Older women who receive and provide practical care: Survey 2.



Community and Neighbourhood Satisfaction

The link between social support and health outcomes was further substantiated through the analysis of neighbourhood satisfaction items from Survey 2. The findings make a contribution to our understanding of the potential impact of features of the local social and physical environment on health in older women. The findings also highlight the importance for health promotion policies to take account not only of soicoeconomic characteristics of people, but also the contexts of their everyday lives.

This study has identified two sets of items that form valid measures of aspects of the social environment of older women, namely the sense of neighbourhood and feelings of safety. A higher sense of neighbourhood was associated with better physical and mental health, lower stress, better social support and being physically active. Sense of belonging to a neighbourhood increased with years living in present home, with women living in their home for 21 years or more having higher scores than all other women. Scores were also higher for women living in non-urban areas, those women who were better able to manage on their

available income, and women living alone. Of the women living alone, 85% were widowed. These women may have developed supportive social networks to compensate for living alone.

However, separated and divorced women had significantly lower sense of neighbourhood scores than married, widowed and never married women. Women reporting no physical activity or a sedentary lifestyle had a lower sense than all other women. Almost one quarter of these Older women had little to do with their neighbours and around one in five felt that it would not be noticed if they no longer lived there.

Thirty-nine percent of Older women felt that it was safe to walk around their neighbourhood at night. The neighbourhood safety score was found to be related to the degree of urbanisation of the locality, socioeconomic status, and living arrangements. Feeling safe in the neighbourhood was least likely in urban areas, increased in rural townships, and was most likely in rural and remote areas. Neighbourhood safety scores were highest among married women and those more able to manage on their income. While there were no significant differences in mean neighbourhood safety scores according to years living in the present home, women reporting high levels of physical activity reported a higher mean safety score than women leading a sedentary lifestyle or with low levels of physical activity. Older women living alone felt less safe, as did women who were less able to manage on their income.

Therefore, the women in the study were generally happy with where they lived, felt they were treated with respect, and had trust in their neighbours to help look out for their property. The findings that women living in urban areas, with poorer health and lower socioeconomic status have a lower sense of neighbourhood and greater concerns about safety highlights the need for policies that reduce this social exclusion.

Social Support and Older women's health

- Most Older women score high on social support dimensions and most women maintain these high scores over time.
- Higher social support was associated with being Australian born, more educated, and better able to manage on income.
- Social support is positively associated with health-related quality of life, and with lower use of health services.
- Low social support appears to have a long-term negative impact on health, but increases in social support are associated with improvements in health.
- Many Older women both give and receive high levels of social support.
- Older women are generally happy with where they live, feel they are treated with respect, and trust their neighbours to help look out for their property.
- Sense of neighbourhood scores increase with better health scores, being more physically active, ease of managing on present level of income, and decreasing urbanisation.
- Women living alone had slightly higher sense of neighbourhood scores but lower safety scores.
- Women living in urban areas, with poorer health and lower socioeconomic status have a lower sense of neighbourhood and greater concerns about safety than women in rural or remote areas.

Ageing and Women in Vulnerable groups

Socio-economic Status

There is good evidence that the relationship between health and ageing is strongly affected by social factors reflected in markers such as gender, marital status, education, income, occupation and employment, country of birth and ethnic background, as well as other measures of socio-economic status. However, it is thought that these inequalities diminish at older ages and that health service subsidies for older people may reduce differential access to medical care in later life. However, results from ALSWH suggest that for Australian women, the impact of socioeconomic status on physical health-related quality of life may attenuate with age, but the impact on emotional health, health service use, and mortality persists into older age.

A multidimensional method of assigning SES was used to produce a set of individual-based, age-, and gender-specific indexes that generate separate SES scores for five conceptually meaningful domains: employment, income, migration, family unit, and education. Factor analysis confirmed four domains among the Mid-aged cohort (employment, family unit, education and migration) and four domains among the Older cohort (family unit, income, education and migration).

This analysis adds to other evidence that SES must be considered differently in different age groups. The main difference between the SES domains of the Mid-age and Older women was that the employment domain was the primary factor for the Mid-age group, while in the Older group, this factor was replaced by the family unit domain. Employment was not a significant factor for older women, as very few are in paid employment.

Each SES domain score was correlated with answers to items in Survey 1 and Survey 2 asking specific questions relating to:

- *health conditions*: diagnosed hypertension, diagnosed diabetes, experiences of constipation;
- *health service use*;
- *health behaviours* including cigarette-smoking status, and self-reported frequency and intensity of leisure-time physical activity;
- *menopausal status* (for the Mid-age women only);
- *life events.*

In addition, SES scores were linked with BMI, calculated using self-reported weight and height, and SF-36 Physical and Mental Health Component Summary Scores. In each measure of SES, the lowest tertile represented the most disadvantaged group.

For Mid-age women, SF-36 Physical and Mental health Summary Scores generally increased across increasing SES tertiles, whereas health service use decreased. Therefore, high SES women reported better health than lower SES women. The most marked difference occurred between the lowest tertile of SES and the other two. Health behaviours and conditions differed most for the education domain.

There were substantially different relations between SES domains and health measures for Older women. The family unit domain did not exhibit any significant associations with Physical or Mental Health Component Summary Scores. Higher income was associated with better mental health and lower levels of health service use. However, among Older women, education was significantly associated with all the health measures except health service use. This result may be attributable to the likelihood that education level is stable in later adult life, unlike family unit or income, which are affected by widowhood or ceasing employment. Hence

Older women may change and become a more homogenous group in terms of their family situation and income, whereas differences in education arise earlier in life and remain stable. The implications of these findings for future research in to health inequalities are that different domains of SES may be useful for identifying aspects of SES that are important for different health outcomes, but that at a minimum, education should be included as a measure of the SES of older adults.

Further analysis investigated changes in health status and health service use over time by SES and whether these varied with age, comparing data from Survey 1 and Survey 2. At both Survey 1 and Survey 2, cross-sectional analyses showed that Mid-age and Older women in the low SES group had significantly lower scores on all eight subscales of the SF-36, and higher health service use, than those in the middle or high SES groups (except for physical role limitation and hospital doctor consultations for older women at Survey 2). However, on longitudinal analysis, changes in health according to SES groups were more evident among Mid-age women. For Mid-age women, declines in physical functioning and general health scores between Surveys 1 and 2 were larger in the low SES than the high SES group.

For the Older women, the findings suggest that SES inequalities in physical health may attenuate after age 70, with higher SES older women more likely to experience the same declines in physical health as women in the middle or low SES groups. Nevertheless, low SES remains an important predictor of declining emotional role limitations, increased GP visits, and higher risk of mortality. Although SES differentials in physical health seem to widen during women's adult years and narrow towards older age, SES remains an important predictor of health care utilisation and mortality in Older women.

Coping with major life events

The most common life events affecting the Older women are listed in Table 5. These events included declining health and/or death of friends, and declining health of spouse; reduced income; onset of personal illness, accident or injury; moving house and conflicts with family.

Table 5. Most frequently occurring major life events: Older cohort, Survey 1.

Life event in 12 months prior to 1996	**%**
Major decline in health of close family member (other than spouse) or close friend	27.9
Death of close friend	21.7
Major decline in health of spouse or partner	17.8
Decreased income	17.6
Major personal illness	14.2
Death of close family member (other than spouse or child)	14.1
Major personal achievement	8.6
Moving house	6.2
Major conflict with children	5.2
A fall which caused serious injury	4.9

The study provides opportunity to understand health and related factors associated with these life events and transitions. For example, moving house was one of the top ten life events reported in Survey 1. Many women wrote about how they had had to move because they

could not afford to stay in their own homes or because maintenance had become problematic, or to move from rural to more urban areas to be closer to family and services.

Between Survey 1 and Survey 2, 3% of the older women in the study had moved from rural or remote areas to urban areas. Women in remote areas were most likely to move, with 11% of the 72 women living in these areas having moved at follow up. There was a significant trend for women who moved to have more symptoms at Survey 2 than women who remained in their original homes. Also, contrary to women in other areas who recorded significant increases in Mental Health SF-36 subscale scores between Survey 1 and Survey 2, women who moved had no significant increase in these scores. Women who moved to more urban areas had higher perceived access to health care, but had lower reported use of community services than women in rural or remote areas. The women who moved also had the lowest neighbourhood satisfaction scores and a greater negative change in social support scores than women who remained in their original area of residence classification. These data suggest that women who move from rural to more urban areas are a vulnerable and potentially disadvantaged group of older women, who require particular consideration in policy and planning.

Death of spouse is another major event experienced by a large proportion of older women. At Survey 1, 34.5% of the women were widowed and 13.5% of these widowed women had lost their spouse within the previous year. A further 7% of the participants reported the death of their spouse or partner occurred in the three years between Survey 1 and Survey 2.

Coping with death of spouse

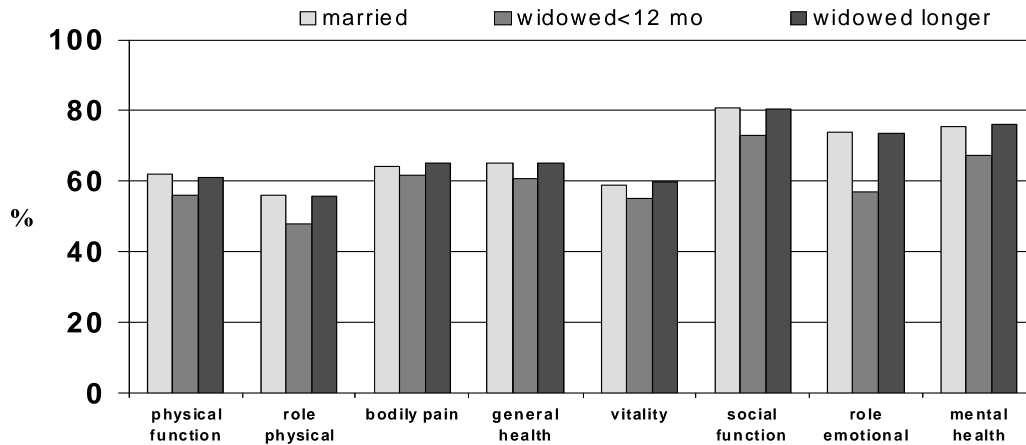
Being widowed is a normal life transition for women, who live longer than men and tend to be slightly younger than their husbands. This transition is associated with significant distress associated with grief and bereavement, but can also be associated with ongoing health, social and financial issues.

Analysis of Survey 1 data from the older cohort was undertaken to compare women on a range of variables. Three groups were identified: 6,640 women who were married or in permanent relationships (62%); 550 widowed in the previous 12 months (4%); and 3889 widowed longer than 12 months (31%). Preliminary analyses showed that the groups came from similar demographic backgrounds, except that the widowed women were less likely to have completed secondary school than were the married women. Demographic variables and lifestyle variables which affect health (BMI, smoking) were controlled for in the comparisons.

In terms of health, it appears that the differentials associated with being widowed may be transient, with "recovery" for most women occurring within 12-24 months (see Figure 17). Women who had been widowed less than 12 months rated their own health significantly lower than the other two groups, and also were more likely to report being stressed about their health. The pattern of results on the eight subscales of the SF-36 was very consistent, with the recent widows scoring worse on the physical, mental and emotional health-related quality of life index, than the married women and those who had been widowed longer. These differences persisted even when sociodemographic (e.g. education) and lifestyle (e.g. BMI, smoking) variables were taken into account.

Those who had been widowed longer than 12 months were strikingly similar to the married women in physical and emotional well-being. The women's comments were consistent with these findings and the women described how "*by keeping busy and with support from a loving family circle and friends another way of life evolves.*"

Figure 17. SF-36 subscale scores for married women, those widowed in the previous 12 months, and those widowed longer: Older cohort, Survey 1.



A theme threaded throughout the comments is stoicism in the face of widowhood and an increasing array of health problems:

> *I am seventy-two years of age. Osteoporosis problems started ten years ago… three crushed vertebrae. I have a lot of back problems – so am careful lifting etc. My doctor calls to see me regularly. I have high blood pressure, rapid heart beat and a mild form of epilepsy, all of which are being treated and so far with good results. Up until 1986, I led a very active life. I worked until I was sixty and raised a family. My husband died very suddenly three years ago. My two children are very good and I mainly look after myself at home. Someone takes me shopping every week. I have nothing to complain about.*

However, unlike the health impacts of loss of spouse, the financial implications and disadvantages are more enduring (see Figure 18). Widowed women were more likely to be stressed about money than married women, and more likely to say they found it difficult or impossible to manage on their income. As one woman commented:

> *A single pension is obviously more difficult… [it's harder] to manage a home and aging car… than a couple.*

Widowed women may also find financial management difficult, regardless of their actual income, if they have had little experience in this area. As another woman wrote:

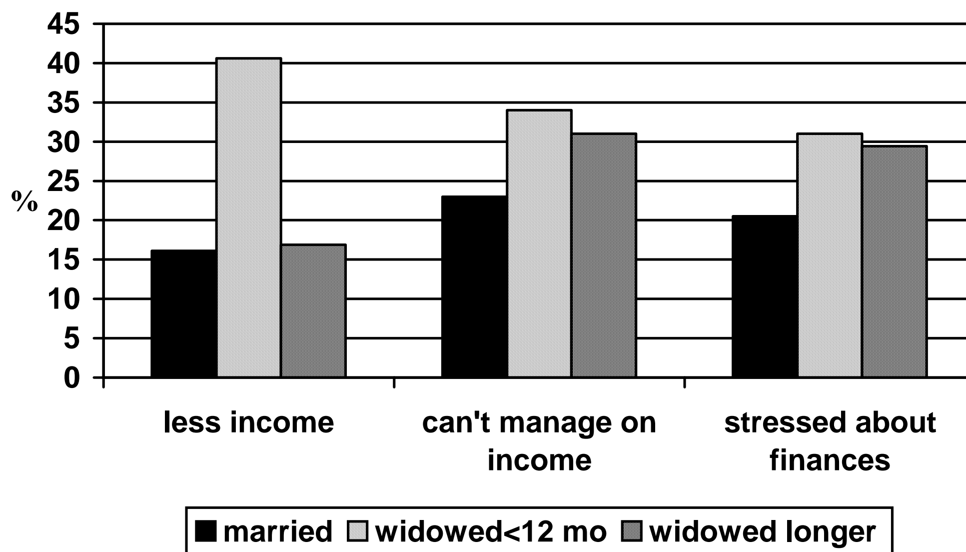
> *I had not banked, shopped or driven the car for many years and had to learn the lot… I am still nervous about it all but managing.*

The following account illustrates concerns arising from a lifetime of lack of financial control.

> *My husband left nothing but debts (unknown to me, he had been gambling heavily – and his superannuation had been used up consequently). I can't afford help… That's what worries me most – trying to do all the housework and the garden – and knowing I can't do it – even though I'm very healthy for my age.*

Widowed women were also less likely to have private health insurance than married women.

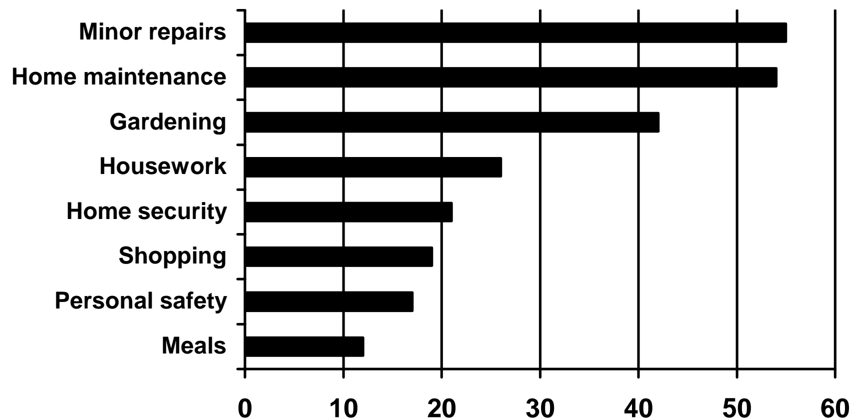
Figure 18. Financial issues for married women, those widowed in the previous 12 months, and those widowed longer: Older cohort, Survey 1.



The needs of these widowed women are substantial and broad, and have direct implications for planning of community services to underpin aged care. In 1997 a substudy was undertaken to explore these needs in detail. The substudy included 231 women who reported at Survey 1 that their husband had died within the past 12 months. While 81% of the widowed women in this substudy still lived in their own homes, 19% had moved house since being widowed for financial or social reasons. There were widespread needs for legal services (44%) and home maintenance (55%) (see Figure 19). Assistance from medical practitioners included understanding (54%), support (32%) and information (20%). Thirty percent said they had received medication to assist their bereavement, and 30% had taken medication to help them sleep or "for their nerves" within the four weeks prior to the survey. Most women (85%) felt they had maintained or increased their level of social contact since becoming widowed.

Analysis of qualitative data collected from these women also reflected these needs, and provided a greater breadth of understanding of the women's circumstances and experiences. Women described the importance of health care providers and other community services in assisting them through the transition from married to single life, as well as the need to keep busy and active within their communities.

Figure 19. Needs of widowed women



With their husbands gone, many women relied on doctors for care and support, both physical and emotional. As one woman said,

> *I suffered a very bad fall in the shower six months ago, resulting in a wedge fracture of L vertebrae. Could have been a lot worse and I am mending slowly. We have had five deaths of close family members in the last nine months, including my husband… Not exactly the best of years but I live in a close-knit rural area and the support of family and friends has been absolutely wonderful. I have a very caring, wonderful doctor (country GP) who never seems to be in a hurry and a country hospital with a marvellous, caring staff. It would be an absolute disaster if it were ever to be closed as is happening to so many now.*

Interestingly, despite poorer self-reported health, widowed women did not make greater use of health services. For example, hospital admissions, number of visits to GPs, use of multiple medications, and use of medications for "nerves", did not differ among the groups. The only significant difference was in the use of medications for sleeping. Overall, the high rate of medications for sleeping and for "nerves" is an issue of concern in this age group.

Contrary to expectations, all three groups of women scored highly on the Duke Social Support Index, indicating that they generally felt that they had good social and practical support from friends, family and neighbours. There is, however, a suggestion that the nature of women's relationships changes when they are widowed. Widowed women were, as expected, more likely to live alone than married women, and more likely to report that they had more time alone, and more time on their hands, than they would ideally like. Some older widowed women spoke of the increased drive to keep busy even though their lives contained fewer commitments and engagements. Being busy was seen as an escape from the reality of living alone, with increased social isolation and loss of intimacy.

> *Naturally my problem is mainly loneliness. I do not put myself on people. I would hate to be a nuisance to anyone.*

On the other hand, some widowed women described how being widowed allowed them greater flexibility and freedom with their time and encouraged a greater emphasis on the self and on personal interests and activities.

However, despite equally high levels of social support, widowed women were more likely to report they were in conflict with other family members. Difficulties with children and other relatives may reflect a struggle over autonomy; younger relatives may stereotype a single elderly woman as infirm and dependent, while the woman herself wants to maintain control over her own life. Being widowed may also present problems in relation to the roles and responsibilities to, and expectations by, their families. Many older widowed women seem to resent the assumption that their age and singleness mean they are either available at any time to provide unpaid child care and domestic help, or that they are unable to maintain independent living and manage their own affairs. Individual comments suggested that the older widowed women appreciated being able to contribute positively to their families, but wanted this contribution to be balanced with recognition of their autonomy and desire for independent lives outside the family unit.

Elder Abuse

While elder abuse is an important social health issue there is very little information about the extent of this problem in the community nor the characteristics of those individuals and families who are most at risk of this situation. As with other forms of family violence, elder abuse is often an "invisible problem" that is frequently unreported and undetected by service providers. The problem is also difficult to measure and quantify in community surveys.

ALSWH has attempted to gather some information on elder abuse through inclusion of the Hwalek-Sengstock Elder Abuse Screening Test. This instrument was developed in the United States to provide a brief and easily self-administered method to determine an individual's risk of elder abuse. The instrument was designed to be completed by older people themselves and, at the time of Survey 1, was the only self-report measure identified in the literature.

Since the measurement of elder abuse is highly problematic, and since the only available instrument has undergone only preliminary evaluation the first analyses have focussed on measurement validity. This work is necessary as a preliminary to being able to gather reliable and interpretable data on elder abuse. The results of these analyses indicate that the instrument measures four factors which may be related to elder abuse. These factors are interpreted as Vulnerability, Dependence, Dejection, and Coercion.

The factors Coercion and Vulnerability appear to measure physical and psychological abuse. On further analysis, both of these factors were positively correlated with stress and number of life events and negatively correlated with the DSSI subscale for satisfaction with support. Vulnerability was also related to country of birth, marital status, living arrangements, providing care for others, having ever been in a violent relationship, and more visits to medical specialists. The items forming these two factors might be the basis for a brief measure for clinicians and aged care providers to screen for risk of abuse and further validation is required.

The Dependence factor does not appear to represent abuse in any direct sense and appears to be less useful as a screening measure for abuse. Rather, this factor seems to measure a lack of autonomy. This factor was weakly and negatively related to social variables such as satisfaction with social support and satisfaction with help, and positively associated with lack of social support at meal times (eating alone) and needing help with daily tasks. The factor was not consistently associated with any demographic or health status characteristics or use of health services.

Dejection seems to represent depression or social isolation, which may be associated with higher risk of abuse, may be an outcome of abuse, or may simply lead women to respond more negatively to a range of subjective survey items. This factor was highly correlated with mental health and stress scores and was also significantly related to a wide range of demographic and social variables.

Implications of ageing for vulnerable groups

- SES must be considered differently in different age groups, with emphasis on employment for Mid-age women and on family for Older women.
- The Education domain of SES has strong significant associations with health in Mid-age and Older women.
- SES inequalities in physical health may attenuate with older age, but inequalities in emotional role limitations, number of GP visits, and mortality remain significant.
- Women who move from rural/remote to more urban areas are a vulnerable and potentially disadvantaged group.
- Women appear to recover from health effects associated with death of spouse, but financial effects are enduring.
- Needs of widowed women are broad and include health care, legal services, home maintenance, gardening, shopping.
- Widowed women are more likely to use medications to help them sleep than other women.

Health Assessments

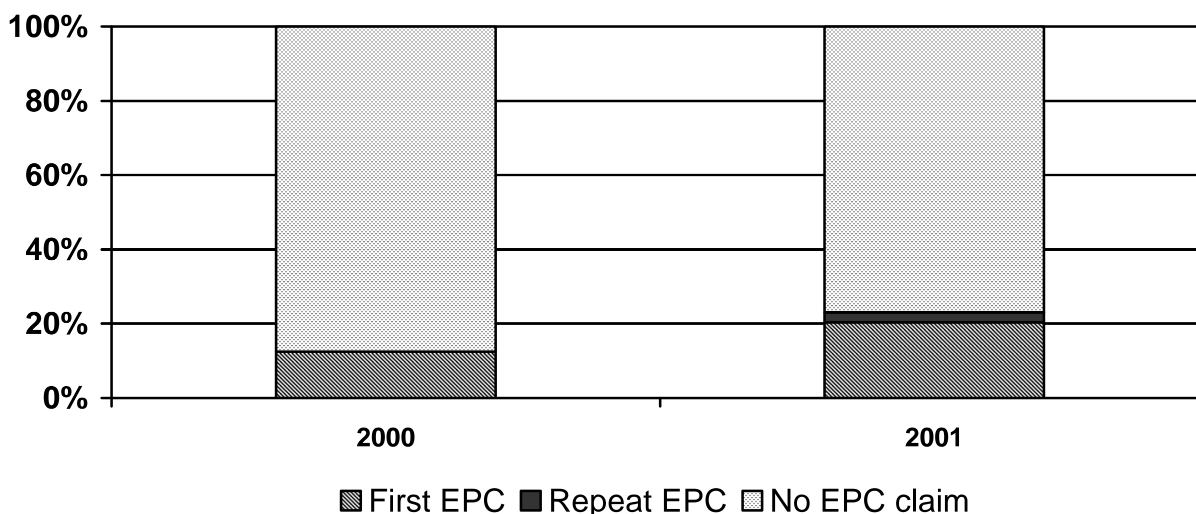
In November 1999, the Australian government introduced Medical Benefits Schedule item numbers for enhanced primary care. These items included case conferencing and complex care plans, and health assessments for those aged 75 years and over. The health assessment items focus on functional assessment, and while there are no strict criteria for assessment or prescribed tool the assessments are supposed to include physical and mental function, social well-being, medication review, and nutrition. The assessment is designed to be repeated at annual intervals.

Survey 2 for the Older women was conducted in 1999, immediately prior to the introduction of these assessment items. A total of 6,993 of the Older women provided data to the study to both Survey 1 (1996) and Survey 2 (1999) and gave permission for access to HIC claims data; 4,952 of these were aged 75 years or over at the start of 2001 and therefore met the age eligibility criterion for the Enhanced Primary Care Health Assessment Items.

By May 2002, the majority of women who provided data (69%) had not lodged a claim for a health assessment in either 2000 or 2001. Only 31% had a record of at least one claim for a health assessment in the 2000/2001 Health Insurance Commission data set.

The number of women lodging a claim increased from 2000 to 2001. There were claims from 619 women in 2000. In 2001 claims were made by 1,038 women (see Figure 20).

Figure 20. Uptake of Enhanced Primary Care items. Older cohort, Medicare claims data for 2000 and 2001.



Data from 4,952 women aged over 75 who had consented to access to Medicare claims data

Most of the women who had made a claim (28% of those eligible) had had only one health assessment in the two year period. Only 132 (3%) women made claims for repeat assessments. A total of 487 (10%) had a health assessment in 2000 but did not have a repeat assessment in 2001; 906 (18%) women had a health assessment in 2001 but had not had a health assessment in 2000.

There were very few differences between women who had health assessments and those who did not have assessments. Women who had a health assessment had more visits to the GP in the years before Survey 1 and Survey 2, were more likely to take more medications, and were more likely to have visited a specialist doctor or an optician in the year before Survey 2, but these differences were small and the overall pattern of health service use was largely similar.

Having at least one health assessment was not related to area of residence, health insurance status (whether they had private insurance for hospital and/or ancillary cover, veterans affairs, or uninsured) or to satisfaction with GP visits. There was also no association with reported medical diagnoses, symptoms, social support, or health-related risks and behaviours (BMI, exercise, nutrition, life events, smoking). There were no differences according to the need for care, or providing care for others, and no difference according to country of birth, educational qualifications, marital status or living arrangements. There were no differences on any of the SF-36 subscales at Survey 1, and one of the eight (bodily pain) showed a significant difference in change between Survey 1 and Survey 2.

These data suggest that more effort is required to encourage the uptake of health assessment items by a greater proportion of women, and to encourage maintenance of this preventive measure. While the data suggest that there is some equity in the way that assessments are being distributed, there may be a case for encouraging uptake more specifically among those with particular health or social needs.

To what extent are women taking up opportunities for health assessments under the Enhanced Primary Care Initiative?

- Under one third of the women had lodged a claim for at least one health assessment item over the two calendar years 2000 and 2001.
- More women had a health assessment in 2001 than in 2000.
- Most women who had made a claim had only one health assessment over two years.
- There were very few differences between women who had health assessments and those who did not have assessments.

Conditions of Ageing, Disability and Aged Care

Regardless of all effort and success in Healthy Ageing it is a reality that there will be an ongoing and increasing need for health and aged care services as the Australian population ages. The Older women in ALSWH provide a viewpoint for observing and understanding the changes in the health and health care needs as people move from their 70's to their 80's and beyond, and the best way to moderate and meet these needs.

Top ten medical diagnoses

Table 6 shows the ten most commonly reported diagnoses among the Older women (Survey 2, 1999), according to area of residence. Arthritis and hypertension were the most commonly reported diagnoses in all areas of residence. However, hypertension was more prevalent among women in remote areas, while arthritis was slightly less common. Women in remote areas also had a slightly higher rate of heart disease and diabetes than those in the other areas, but lower rates of osteoporosis and iron deficiency.

Table 6. Percentage of Older women reporting major diagnoses, by area of residence: Survey 2

	Urban	Large rural	Small rural	Remote
Arthritis	42.9	41.2	41.0	38.4
Hypertension	33.6	33.9	33.6	40.1
Heart disease	13.1	13.3	13.5	15.1
Osteoporosis	13.5	13.0	11.6	10.0
Asthma	7.7	9.0	8.0	8.6
Diabetes	6.8	6.8	7.9	9.0
Bronchitis/emphysema	6.9	6.7	5.5	6.9
Low iron	4.6	5.4	4.3	3.4
Stroke	2.9	3.3	2.4	3.4
Thrombosis	1.4	1.5	1.8	1.3

Mental health diagnoses

Table 7 summarizes the reported rates of three diagnosed mental health conditions among the Older cohort, according to area of residence. Rates of diagnosed mental health problems are higher in urban than in rural areas. It should be noted that rates of dementia are likely to be underestimates, as women with these diagnoses are less likely to participate in ALSWH than are other Older women.

Table 7. Percentage of Older women reporting diagnosed mental health conditions, by area of residence: Survey 2

	Urban	Large rural	Small rural	Remote
Depression	7.5	6.1	5.9	7.3
Anxiety	6.2	5.5	5.1	5.2
Alzheimer's/dementia	0.7	0.3	0.4	0.9

Top ten procedures

Table 8 summarizes the reported rates of the most common surgical procedures among the Older women, according to area of residence. Skin surgery – mainly for skin cancers – and endoscopy - a procedure used to investigate a range of gastrointestinal conditions – are by far the most commonly reported procedures, followed by eye surgery. Skin surgery was markedly more frequent among remote area women. In contrast, endoscopy was far less frequent among older remote area women. About 30 per cent of the Older women had not undergone any of the listed procedures, but the proportion was lowest in large rural areas (29%) and urban (31%) areas, and highest among older women in small rural (33%) and remote (36%) areas.

Table 8. Percentage of Older women reporting surgical procedures, by area of residence: Survey 2

	Urban	Large rural	Small rural	Remote
Skin surgery	31.1	30.0	31.2	38.8
Endoscopy	21.2	21.0	19.8	11.8
Eye surgery	19.3	21.6	19.1	15.1
Arthroscopy	6.2	6.7	6.1	7.2
Prolapse repair (vagina, bladder or bowel)	4.4	5.45	4.7	3.3
Heart surgery	4.3	3.6	3.5	3.3
Hip surgery	3.4	2.3	3.6	1.3
Cholecystectomy	3.2	2.1	3.0	4.0
Hysterectomy	1.7	2.7	2.0	0.1
Removal of both ovaries	0.7	0.7	0.6	0.7

Falls

At Survey 1 (1996) six hundred and fifty-five Older women (4.9%) reported a fall with serious injury within the twelve months before the survey. Low scores on the physical health component scale of the SF-36 were associated with higher probability of having had a fall. A greater number of life events, higher scores the on the Dejection factor of the elder abuse scale[2], and use of medications for "nerves" were also positively associated with reporting a fall with serious injury. These results highlight the need to consider the wider contexts of women's health and other circumstances both in terms of falls prevention and in assisting people to recover from a fall-related injury.

Incontinence

In Survey 1 (1996), 35% of the Older women reported having experienced 'leaking urine' 'often' in the previous 12 months. Details about leaking urine (frequency, severity, situations) and associated factors (pregnancy, childbirth, Body Mass Index) were sought from 500 of those older women suffering urinary incontinence (UI) 'often'. Most (91%) confirmed that they had leaked urine in the last month, and the majority of these were cases of 'mixed' (urge and stress) incontinence. Leaking urine was significantly associated with parity, conditions which increase the pressure on the pelvic floor such as constipation and obesity, past gynaecological surgery, and conditions which can impact on bladder control.

73% of older women had sought help or advice about their UI. Within this group, health insurance status was positively associated with older women's willingness to pay for treatment for their UI. The likelihood of having sought help significantly increased with severity of incontinence. The most common reasons for not seeking help were that the women felt they could manage the problem themselves, or did not consider it to be a problem. Many women

[2] See earlier section on Elder Abuse. This factor is most likely a measure of depression.

had employed avoidance techniques in an attempt to prevent leaking urine, including reducing their liquid consumption, going to the toilet 'just in case', and rushing to the toilet the minute they felt the need to. More than one quarter of the older women said they avoided sporting activities because of leaking urine.

Strategies are needed to inform women who experience UI of more effective management techniques, and the possible health risks associated with commonly used avoidance behaviours. There may be a need to better publicise existing incontinence services, and improve access to these services. Health professionals could be more proactive in raising this issue with women and offering help through non-invasive strategies such as pelvic floor muscle exercises.

Arthritis and mobility limitation

Arthritis was the one of the most commonly reported chronic conditions among Mid-age and Older women; 23% of Mid-age and 42% of Older women reported "having been told by a doctor they had arthritis" in the most recent surveys. Women reporting having arthritis were more likely to need help with daily tasks, and had higher use of health services, including GPs, specialists, and hospital doctors. Older women with arthritis rated their access to medical specialists as less satisfactory than did other women, and also had lower rating of the ease of seeing their GP of choice. 18% of Mid-age women reported having taken medication for arthritis in the previous month. Two-thirds of these women took medication prescribed or recommended by a doctor, while the remainder took other medications for arthritis. 25% of Mid-age women and 49% of Older women with arthritis also reported having visited an alternative practitioner (included acupuncturists, osteopaths and chiropractors) in the past twelve months.

Osteoporosis

Between Surveys 1 and 2, a total of 703 Mid-age and Older women reported new diagnoses of osteoporosis. The prevalence of osteoporosis has increased markedly among the Mid-age women with each subsequent survey. Of those who have remained in the study over the three surveys, 4% reported having osteoporosis at Survey 1 (45-50 yrs old), by Survey 3, 14% had reported having been told by a doctor they have osteoporosis (50-55 yrs old). In the Older group, 21% reported osteoporosis at Survey 1, and by Survey 2, 30% had been told by a doctor they had this condition. Having osteoporosis was associated with needing help with daily tasks, and higher use of health services, including GPs, specialists and hospital doctors. While women with osteoporosis were high users of GP services, they were often less satisfied with the convenience of the location of the surgery and the time spent in the waiting room, especially in the Older cohort.

Major causes of morbidity among Older women

- Arthritis is a major cause of morbidity among older women.
- Apart from skin surgery, women in remote areas are less likely to have surgical procedures than rural or urban women.
- Falls with injury are associated with poor physical health and with medication for "nerves", and also with higher scores on the Dejection factor of the elder abuse scale.
- 35% of Older women report incontinence and this condition is associated with increasing parity, constipation, obesity and gynaecological surgery.
- Many women used inappropriate avoidance techniques to deal with incontinence.

Women as Providers of Aged Care

Family caregiving, the home-based care of ill or disabled family members, is a responsibility which falls disproportionately on women, as a result of traditionally being seen as "women's work". This analysis examines the experiences of Mid-age and Older women who reported regularly providing care or assistance (e.g., personal care, transport) to someone because of their long-term illness, disability or frailty. Statistical analyses of the survey responses are combined with a qualitative analysis of the women's open-ended responses to the survey, to provide a comprehensive picture of the lives and concerns of Australian women who provide family-based care for others. We wanted to know who the respondents cared for and what they did for those people. We also examined the effect of caregiving on employment and finances; physical and emotional well-being; coping strategies; and leisure and social activities.

Who cares?

In total, 7% of Mid-age women and 17% of Older women reported at Survey 1 that they cared for another adult who was elderly, disabled or sick. As well, 185 Mid-age and 168 Older women provided open-ended comments about family caregiving (excluding comments about caring for one's own healthy, normal children or grandchildren). There were few demographic differences between caregivers and others: they did not differ in age or education, although Mid-age caregivers were less likely to live in remote areas and Older caregivers were more likely to be married (many were caring for husbands) and less likely to be widowed.

The open-ended descriptions indicated that caregiving could be highly complex, with 50 Mid-age women (27%) and 15 Older women (9%) caring for two or more different people, often in different locations. Mid-age women were most likely to care for their own disabled children (44%), parents and parents-in-law (41%), or husbands (18%). Older women were most likely to care for their husbands (69%), with 15% caring for adult children and 8% caring for their mothers, all of whom were well into their 90s. Other women cared for aunts and uncles, siblings, disabled grandchildren, and close friends.

The women described a wide range of disabilities and illnesses experienced by their family members; their children frequently experienced physical or intellectual disabilities, emotional and psychiatric problems, and chronic physical diseases such as cerebral palsy or epilepsy. Parents of the middle-aged women, and husbands and mothers of the older women, were described by many respondents simply as *frail* or *in need of care*, but they also reported a range of severe medical conditions, the most common being stroke, Alzheimer's disease, cancer and Parkinson's disease. Many of these older family members had multiple problems. The husband of one Older woman, for example, suffered from prostate cancer, emphysema and Alzheimer's disease; another had cancer, a stroke, and Parkinson's disease.

Several respondents to this survey described complex situations in which a single caregiver trying desperately to support several generations of her family without any assistance. One middle-aged woman wrote:

> *Have husband with major heart-lung problems... 23 year old son with Cystic Fibrosis... 19 year old son with acute brain injury (due to MVA [motor vehicle accident])... mother-in-law 90 yrs who needs to be taken to doctors... Coped until I had MVA 4 years ago and then our life has just seemed to have a major collapse. Have had to put farm on market due to illness of family.*

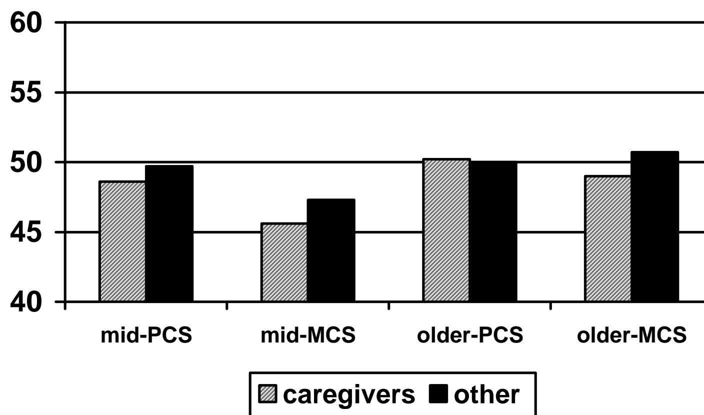
Several Older women wrote about family members who had been institutionalised, describing a continuing caregiving role for themselves. For example:

> *I am stressed at this time as my husband is in hospital with Parkinson's Disease and is in poor health. I will most days, do his washing and feed him if needed, so I don't have a lot of time to relax and do things I'd like too. I miss him and spend a lot of the day with him.*

Physical and emotional health

The Mid-age caregivers reported poorer health than other women their age, though there were no differences among the Older women. Mid-age carers were more likely to report their overall health as being "fair" or "poor" than non-carers, and more likely to report back aches, joint problems, chest pain, breathing difficulties, indigestion and constant tiredness. They also scored lower than other Mid-age women on both the physical and the mental components of the SF-36. The Older carers scored lower than others on the mental component score but not the physical component score. The Mid-age women did not show any differences in visits to health care professionals, but the Older carers had visited GPs and specialists less often. In both age groups, carers reported higher levels of stress and of feeling busy, rushed or pressured.

Figure 21. SF-36 Physical and Mental Component Scores for Mid-age and Older women with and without family caregiving responsibilities - Survey 1.



It is interesting that the Mid-age caregivers seem to be in poor physical health while the Older women are in relatively good health (see Figure 21). This may be because older women in poor health are more likely to be provided with professional health care for their family members. Even so, the qualitative data in both age groups present a picture of women coping with difficult situations with little practical support. And even though the older caregivers show few signs of ill health, they are certainly stressed and tired, which suggests they may have difficulty in maintaining their caring role.

Health behaviour

Among the Mid-age women, carers were more likely to smoke but less likely to drink. Smoking and drinking were relatively uncommon in the Older group, and there were no differences. Mid-age carers were as likely as others to have had a mammogram in the previous 2 years, but less likely to have had a Pap smear

Several of the Older women mentioned the impact that caregiving had on their ability to maintain their own health:

> *I am a great walker and up to two years ago I had no trouble walking to the city and back. As I now look after my 98 year old mother I do not have the time.*

> *My husband has Parkinson's Syndrome in the early stages. He is 80 years old... He is very restless at night so neither of us get proper sleep.*

Coping with caregiving

Most women who commented on coping with caregiving felt that they received little support from the health care system:

> *I found there was very little assistance readily available to assist in coping and that I had to find huge resources of time, energy, and emotional strength within myself.*

Others mentioned the support they received from their families:

> *Fortunately my health is good. I have a supportive spouse and children and we are very fortunate that we can cope [financially] in spite of the fact that my income has been diminished...*

A problem for many women was the apparent impossibility of any respite to enable them to participate in social or leisure activities:

> *My husband is very demanding and I would love to have a holiday away from him for just a couple of weeks, but placing him into somebody else's care is virtually impossible.*

For some women, restriction on discretionary time had been a major and life-long challenge. As one elderly mother of two disabled sons wrote,

> *Support services in the community were practically non-existent, so the bulk of my life or most of my energy has gone into coping with them. One did not ever walk and lived until he was almost 22 and the younger one is still alive - but did not walk until he was nearly nine years. My life has depended on my fitting enough interesting activities around these problems.*

Other women felt unsuited to the task of caring:

> *... at the moment have a lot of responsibilities as my husband is wheelchair bound and I am his carer. I don't feel it is the right job for me as I get impatient with him and feel guilty as it is not his fault he is the way he is... I feel stressed and tired a lot because I feel very responsible for my husband's well being and safety.*

On the other hand, at least some Older women were contented despite difficult circumstances:

> *I am 74 years of age. My husband is 91. He suffers from acute angina and needs care but can care for himself such as dressing bathing, helping a little, such as wiping up, setting table. My eldest son shall be 56 in August. He is confined to a wheelchair. He has never walked. He is a person with cerebral palsy. The only thing he can do for himself is feed himself. I care for him at home, and happy to do it. I have a good family. I believe in taking each day as it comes, and I thank God he has given me good health to be able to care for J* [husband] *and J* [son].

What are the characteristics of family caregivers in the Mid-aged and Older women?

- Women are more likely to be caring for someone than being cared for.
- Older women are most commonly caring for husbands and the care required may be complex due to interacting physical and psychological problems as well as other roles and demands on the women's time.
- Mid-age women are likely to work as well as care for disabled child, parent or spouse.
- Caring is associated with poor physical and mental health among Mid-age women, and poor mental health among older women. Both groups report higher levels of stress than women with no caring responsibilities.

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Appendix

The following tables provide the data for the figures contained in the text.

1. Younger women's aspirations for age 35, by area of residence, Survey 1(%)

	Full-time work	Part-time work	Married/ relationship	1-2 children	3 children or more	More qualifications
Urban	61.9	29.8	95.7	65.0	26.4	76.6
Rural	53.3	36.4	97.8	63.3	30.2	67.9
Remote	49.0	39.8	99.1	61.6	31.7	66.6

2. Younger women's aspirations for employment at age 35, and Mid-age women's actual work status: Survey 1(%)

	Younger women	Mid-age women
Full-time work	59.7	37.3
Part-time work	31.5	31.1
Home Duties	4.0	16.5
Other	4.8	15.1

3. Younger women's aspirations for occupational category at age 35, and Mid-age women's actual occupational category: Survey 1(%)

	Younger women's aspirations	Mid-age women's actual occupation
Manager	10.3	11.7
Professional	42.4	16.0
Para-professional	13.1	9.0
Trades	3.1	3.1
Clerical/sales	3.5	23.8
Personal service	17.8	13.6
No job	9.7	22.8

4. Younger women's aspirations for relationship status at age 35, and Mid-age women's actual relationship status: Survey 1(%)

	Younger women's aspirations	Mid-age women's actual relationship status
Married	85.1	75.1
De facto	10.6	5.6
Single	1.1	3.9
Other	3.3	15.4

5. Labour force transitions of Mid-age women, 1998-2001(%)

	1998-2001
More paid work	34.4
Same amount of work	29.7
Less work	20.9
Not in the labour force	14.9

6. Workforce transitions of Mid-age single and married women, 1996-1998, 1998-2001(%)

	Single at Survey 1	Married at Survey 1	Single at Survey 2	Married at Survey 2
More paid work	24.9	25.1	34.1	34.5
Same amount of work	19.0	17.3	20.6	20.9
Less paid work	41.3	39.8	32.2	29.3
Not in the labour force	14.8	17.9	13.1	15.3

7. Changes in Mid-age women's hours of work between Surveys 2 and 3 (%)

Hours of paid work per week	Survey 2	Survey 3
<15	10.7	12.3
16-24	11.8	11.7
25-34	12.0	11.8
35-40	22.0	19.7
41-48	11.0	10.6
49+	7.3	11.1
Not in labour force	23.2	22.9

8. Mid-age women providing childcare, by area of residence (%)

	Never	Occasionally	Weekly	Daily
Urban	63.6	29.7	4.7	2.1
Large rural	58.8	32.0	6.4	2.8
Small rural	57.8	33.7	6.7	1.8
Remote	53.9	37.4	6.7	2.1

9. Workforce transitions of women who said they would like more hours of work (before transition) at Survey 2

Survey 2	Survey 3	%
Part-time	Same hours	14.8
Part-time	More hours	25.4
Part-time	Fewer hours	9.4
Full-time	Same hours	1.0
Full-time	More hours	1.9
Full-time	Fewer hours	1.4
Not in labour force	Not in labour force	21.9
Not in labour force	In paid work	37.0
In paid work	Not in labour force	19.5

10. Workforce transitions of women whose partner retired in the previous twelve months

Survey 2	Survey 3	%
Part-time	Same hours	4.2
Part-time	More hours	5.2
Part-time	Fewer hours	5.6
Full-time	Same hours	5.1
Full-time	More hours	4.6
Full-time	Fewer hours	7.3
Not in labour force	Not in labour force	4.9
Not in labour force	In paid work	4.3
In paid work	Not in labour force	11.7

11. Physical and Mental Component Scores for Mid-age women, according to satisfaction with hours worked

	1-15	16-24	25-34	35-40	41-48	49+
MCS	50.8	51.7	51	50.4	49.9	49.7
PCS	50.3	50.6	51.3	51.5	51.3	51.2

12. Mental health score of Mid-age women according to satisfaction with hours of paid work, Survey 2

	<15	16-24	25-34	35-40	41+
Happy with hours	52.2	52.4	52.5	52.7	52.7
Would like more hours	49.3	50.7	47.4	47.1	51.2
Would like fewer hours	47	47	48.3	49.3	48.9

13. SF-36 subscales scores by age cohort: Survey 1 Physical health

	Physical functioning	Role physical	Bodily pain	General health
Younger	90.19	82.82	74.18	68.34
Mid-age	85.08	79.57	70.65	71.9
Older	63.35	57.39	65.09	65.36

SF-36 subscales scores by age cohort: Survey Mental health

	Vitality	Social functioning	Role emotional	Mental health
Younger	56.64	76.03	69.98	67.91
Mid-age	58.08	81.38	76.96	72.12
Older	60.02	81.09	75.8	76.52

14. Percentage of Older women who report that specific symptoms or activities interfere with sleep, according to sleeping-difficulty category: 2000 Sleep Substudy

	Breathing	Cough/snore	Bad dreams	Pain	Using the toilet
Drugs and difficulty	11	15	17	48	81
Drugs/No difficulty	5	10	6	27	77
No drugs/ difficulty	8	16	16	30	83
No drugs/ no difficulty	3	6	6	13	68

15. Percentage of Older women who report a range of indicators of social support: Survey 2

Type of support	%
5+ visitors weekly	31
5+ phone calls weekly	65
3+ social groups	26
Understood by family/friends	84
Useful to family/friends	77
Listened to by family/friends	80
Can talk about deepest concerns	70
Can depend on 2+ people in the area	52
Satisfied with relationships	80

16. Percentage of Older women who receive and provide practical care: Survey 2.

Regularly provide voluntary services	21
Regularly provide unpaid childcare	21
Regularly provide care for someone who lives elsewhere	13
Regularly provide care for someone who lives with me	7
Receive care regularly	10

17. -36 subscale scores for married women, those widowed in the previous 12 months, and those widowed longer: Older cohort, Survey 1.

	Physical function	Role physical	Bodily pain	General health	Vitality	Social function	Role emotional	Mental health
Married	62	56.2	64.2	65.1	58.8	81	74	75.5
Widowed less than 12 months	56.1	47.9	61.7	60.5	55.2	72.9	57.1	67.5
Widowed longer than 12 months	61.3	55.7	65	65	59.8	80.7	73.6	76.2

18. Financial issues for married women, those widowed in the previous 12 months, and those widowed longer: Older cohort, Survey 1 (%)

	Less income	Can't manage on income	Stressed about finances
Married	16.1	23.0	20.5
Widowed <12 months	40.6	34.0	31.0
Widowed longer than 12 months	16.9	31.0	29.4

19. Needs of widowed women (%)

Meals	12
Personal safety	17
Shopping	19
Home security	21
Housework	26
Gardening	42
Home maintenance	54
Minor repairs	55

20. Uptake of Enhanced Primary Care items. Older cohort, Medicare claims data for 2000 and 2001, (%)

	2000	2001
First EPC	618	1035
Repeat EPC	0	136
No EPC claim	4333	3914

21. F-36 Physical and Mental Component Scores for Mid-age and Older women with and without family caregiving responsibilities, Survey 1

	Mid PCS	Mid MCS	Older PCS	Older MCS
Caregivers	48.6	45.6	50.2	49
Others	49.7	47.3	50	50.7