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Australian Institute of Health and Welfare

Department of Health and Ageing



# Older Australia at a glance

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*4th edition*

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Please note that as with all statistical reports there is the potential for minor revisions of data in this report over its life. Please refer to the online version at [www.aihw.gov.au](http://www.aihw.gov.au)

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# CONTENTS

	Page		Page
<i>Foreword</i>	<i>iv</i>	25 Dementia	86
<i>Contributors</i>	<i>v</i>	26 Vision problems	90
<i>Acknowledgments</i>	<i>vi</i>	27 Oral health	93
<i>Abbreviations and symbols</i>	<i>vii</i>	<b>Use of health and aged care services</b>	<b>97</b>
<i>Overview</i>	<i>viii</i>	28 The Australian health and welfare systems	98
<b>Demographic profile</b>	<b>1</b>	29 Care needs and sources of care	102
1 Age, sex and cultural diversity	2	30 General practitioner services	105
2 The changing demographic profile	5	31 Use of pharmaceuticals	109
<b>Social and economic context</b>	<b>9</b>	32 Dental services	112
3 Marital status and living arrangements	10	33 Hospital use	114
4 Housing	13	34 Reasons for admission to hospital	117
5 Transport	17	35 Aged care assessment	121
6 Workforce participation	21	36 Home and Community Care Program	123
7 Retiring from paid work	24	37 Community Aged Care Packages	126
8 Community and civic participation	28	38 Extended Aged Care at Home and Extended Aged Care at Home Dementia packages	128
9 Providing care	32	39 Respite care	131
10 Social participation and leisure	35	40 Residential aged care: resident profiles	134
11 Use of technology	40	41 Residential aged care: patterns of supply and use	137
12 Income, wealth and expenditure	43	<b>Special population groups</b>	<b>141</b>
13 Age Pension and superannuation	47	42 Older Aboriginal and Torres Strait Islander peoples	142
14 Intergenerational transfers within families	50	43 People from non-English-speaking countries	146
<b>Health and functioning</b>	<b>53</b>	44 Older people in regional and remote communities	149
15 Ageing and health risk factors	54	45 Older veterans	153
16 Life expectancy, health status and causes of death	58	Appendix tables	158
17 Disability	60	References	198
18 Burden of disease	63	List of tables	209
19 Cardiovascular disease	66	List of figures	214
20 Cancer	70		
21 Diabetes mellitus	73		
22 Respiratory disease	76		
23 Mental health	79		
24 Osteoarthritis and other musculoskeletal conditions	83		

## FOREWORD

Older Australians are a rapidly growing and diverse segment of the Australian population. This diversity should not surprise us, given that this particular segment of the population covers an age range of almost 40 years.

At one end of this spectrum, the 'baby boomer' population bulge, so often referred to in the media and public discourse, is moving through 'mature' age into early 'older' age, bringing not just increased numbers, but also new issues.

At the other end of the age range, increased longevity in Australia is supporting marked growth in the numbers of people over the age of 85, and associated increases in the prevalence of co-morbid health conditions, neurodegenerative diseases and related care needs. Dementia, for example, which affects approximately one in four people in this older group, is one of the greatest challenges facing individuals and their carers, as well as the community as a whole.

The diversity of the older Australian population, combined with ongoing changes in the health, economic and social circumstances faced by all Australians, results in a very complex range of differing circumstances and needs as we grow older. The availability of high-quality data and accompanying analysis that paints a meaningful picture of 'older' Australia, and which reflects this complexity and diversity, is therefore fundamental to improving understanding of the situation as a whole and the many possible situations within it.

*Older Australia at a glance: 4th edition* aims to do just this. It provides succinct, up-to-date and reliable information and commentary on the differing circumstances and needs of older Australians according to their income and assets, health and independence, living arrangements, as well as their age.

The range of topics covered is broader than in previous editions of this publication, and all material is supported by detailed figures and tables, and a comprehensive reference list.

Students, researchers, policy-makers, business people, practitioners, service providers, carers and the general public will find *Older Australia at a glance: 4th edition* a 'must-have' reference on the range of issues and variables which influence the views, preferences and actions of older Australians.

Penny Allbon

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- Department of Veterans' Affairs
- Department of Employment and Workplace Relations.

## ABBREVIATIONS AND SYMBOLS

ABS	Australian Bureau of Statistics
ACAP	Aged Care Assessment Program
ACAT	Aged Care Assessment Team
AIHW	Australian Institute of Health and Welfare
CACP	Community Aged Care Package
CALD	Culturally and Linguistically Diverse
CURF	Confidentialised Unit Record File
DEWR	Department of Employment and Workplace Relations
DoHA	Department of Health and Ageing
DVA	Department of Veterans' Affairs
EACH	Extended Aged Care at Home
FaCSIA	Department of Families, Community Services and Indigenous Affairs
HACC	Home and Community Care
GSS	General Social Survey
MDS	Minimum Data Set
NHS	National Health Survey
NRCP	National Respite for Carers Program
RCS	Resident Classification Scale
SDAC	Survey of Disability, Ageing and Carers
VHC	Veterans' Home Care

## SYMBOLS IN TABLES

N	number
\$	Australian dollars
%	per cent
n.a.	Not available
. .	Not applicable
n.p.	Not published by the data source
—	Nil or rounded to zero (including null cells)
*	when used in front of a numerical value means that the estimate has a relative standard error of 25% to 50% and should be used with caution.
**	when used in front of a numerical value means that the estimate has a relative standard error greater than 50% and is considered too unreliable for general use.
#	when used in front of a numerical value means that the estimate is based on less than 20 cases.



## OVERVIEW

This 4th edition of *Older Australia at a glance* describes the characteristics and circumstances of Australia's 2.7 million older Australians using key statistics in relation to 45 topics or areas of interest. This edition differs from previous ones (AIHW 1997; AIHW: Gibson et al. 1999; AIHW 2002b) in several ways. Firstly, this version looks to future generations of older people, by including information on those now aged 50 to 64 years, providing potential insights into how future cohorts of older people may be similar or different from current cohorts.

Secondly, this edition reflects the more sophisticated approaches which are increasingly evident in both policy and research directed at understanding personal and population ageing, by incorporating a broader range of topics on transport use; use of technology; intergenerational transfers within families; vision problems; oral health; dental services; and Extended Aged Care at Home. In keeping with this more comprehensive approach, other pre-existing topics have been expanded to include new material on social and community participation; superannuation; wealth and expenditure; and each of the National Health Priority Areas.

### Key findings

People accumulate life experiences that variously affect their wellbeing, health and quality of life. The current population of older Australians are almost the last group to have had their lives shaped by direct experience of the Great Depression of the 1930s and World War II. The youngest members of this population (those aged 65–68 years) were born during the war, and the oldest members were among those whose youth and early adulthood were lived in the shadow of the deprivations, insecurity and hardship of both these events—they were also those who actively participated in the war and form the bulk of the veteran population. There are currently 266,100 Department of Veterans' Affairs (DVA) income support beneficiaries aged 65 years and over representing 10% of all older Australians; among people aged 85 years and over, an even larger proportion (27%) are in receipt of DVA income support.

These differences in the life experiences of younger and older members of the current population of older Australians highlight the importance of recognising the diverse nature of this population. After all, grouping all older Australians into one category contains an age range of almost 40 years—similar to grouping together the population aged 20 to 60 years. The health, family circumstances, physical abilities, economic

circumstances and service needs of an average 65 year old are generally very different to those of an average 90 year old. These differences emerge very clearly in many topics in this publication. In addition a wide diversity of backgrounds is evident within these age-groups, with resulting implications for many areas of public policy including health and aged care service delivery. For example, 35% of older people were born overseas with 61% of these coming from a non-English-speaking country.

The notion that the vast majority of older people are a burden on the community and are being 'looked after' is challenged by the data presented in this publication. The overwhelming majority of older people live in private dwellings in the community—only 6% live in non-private dwellings, which include aged care homes and hospitals. Even among those aged 85 years and over, 74% live in private dwellings. Almost one-quarter of men aged 65–69 years participate in the workforce, along with 13% of women in the same age group. Despite having relatively low average levels of income, 24% of all older Australians were providing direct or indirect financial support for adult children or other relatives living outside the household.

Older Australians are active contributors to family and community life. Almost half of people aged 65–74 years (48%) provide unpaid assistance to someone outside their household, one-third (33%) provide volunteer services through an organisation, 29% are actively involved in community organisations and two-thirds in social and support groups of various kinds. Progressively smaller proportions in the older age groups are actively engaged with community and social organisations, although participation in social and support groups continues at a higher level compared with involvement in community organisations (43% and 15% respectively of those aged 85 years and over). People aged 65–74 years provide 11% of carers and 13% of all primary carers who assist people of all ages with disability.

It is certainly the case that the proportion of older people with poor health and/or severe disability increases with age. As a consequence, use of health and aged care services generally also increases with age. For example, during 2005–06 people aged 65–74 years made an average of 8 visits per person to a GP while those aged 85 years and over made 9.5 visits. However, our understanding of how older people use services is still too heavily reliant on data about the 'stock' of people within a program (e.g. residential aged care), despite the acknowledged importance of interfaces between different service components



(e.g. acute care hospitals and nursing homes) and the importance of understanding flows of people into and through the service system (e.g. the changing needs of older people receiving home based care over a period of say a decade). Some limited work has been done in this area, particularly at the interface between hospital care and residential aged care, but this remains an area where further research and statistical analysis is needed.

Examining the characteristics and activities of mature-age people aged 45–64 can sometimes provide a glimpse into the world of a future older Australia. For example, technology plays an important role in the lifestyle of this age group where 75% of those aged 45–54 years and 60% of those aged 55–64 years use a computer at home. By contrast, home use of a computer is less common in current older age groups (40% at age 65–74 years, 18% at age 75–84 years and 6% at age 85 years and over). This current decline by age group reflects differences in the information technology experiences and histories of these cohorts. It is likely that a high proportion of people currently aged 45–64 years will continue to use computers at home into old age and that current age differences will significantly diminish in future.

It is less clear that some other current differences between mature-age and older Australians presage a different future. For example, the prevalence of hypertension increases from 47% of people aged 45–64 years to 76% of those aged 75 years and over. These age-related differences may reflect the different cumulative effect of diet, physical activity, and alcohol consumption over a lifetime for people of different ages. In the absence of marked changes in health behaviour we could therefore reasonably expect that, as the current cohort of 50–64 year grows older, the prevalence of hypertension will eventually be similar to that of current 75 year olds. A better understanding of the extent to which the prevalence of hypertension among older Australians might be different in future needs data which allow us to compare the prevalence of hypertension among 45–64 year olds 30 years ago (thus representing the current cohort of people aged 75 years and over), or longitudinal data which tracks the health of the same group of people over an extended period of time.

## Data quality and availability

There has been substantial progress in terms of collecting and reporting data about older Australians over the last 5 to 10 years. In most of the topics in this publication, it is now possible to disaggregate data by age groups to at least age 85 years and over. Only one Australian Bureau of Statistics (ABS) national population survey collects data from people living in residential aged care (the ABS Survey of Disability, Ageing and Carers), reflecting the methodological difficulties associated with data collection in this population. This is a particular limitation when reporting on the health of older people, since almost one-quarter of the very oldest age group are excluded from data collection through the ABS National Health Survey. Surveys of income, wealth and expenditure are among other surveys which exclude those living in residential aged care.

At the time of writing, preliminary aggregate data from the 2006 Census had only just become available. This has been incorporated where feasible in this publication.





## Demographic profile

- 1 Age, sex and cultural diversity
- 2 The changing demographic profile

# 1

## AGE, SEX AND CULTURAL DIVERSITY

In December 2003, the Australian population reached 20 million people. Based on the 2006 Census, by 31 December 2006, it had increased to 20,701,488, 13% of whom were aged 65 years and over and 18% of whom were aged 50–64 years (Table A1.1, ABS 2007b). Throughout this publication, the term 'older people' is used to refer to people aged 65 years and over. In a number of topics the characteristics of other mature-age people (aged 50–64 years) may also be reported where this provides a useful perspective on how future cohorts of older people may be similar or different from current cohorts.

Mature-age and older Australians are a heterogeneous group. Grouping all Australians aged 65 years and over into one category spans an age range of almost 40 years—similar to grouping the population aged 20 to 60 years into one population. The health, family circumstances, physical abilities, economic circumstances and service needs of an average 65 year old are likely to be very different from those of

a 90 year old. In addition there is a considerable diversity of backgrounds and a variety of lifestyles, living arrangements, family circumstances and cultural, social and religious practices. Finally, the health status, activity and interaction with social and government systems that contribute to the health and welfare of Australians vary widely. These differences emerge very clearly in many sections of this publication.

### Age

Preliminary aggregate data from the 2006 Census reveal that there were 2,687,000 people aged 65 years and over in Australia (Table 1.1). Australians enjoy one of the highest life expectancies in the world. A girl born in the period 2003–2005 can expect to live 83.3 years and a boy born during the same period can expect to live 78.5 years (AIHW 2005b) (see also Topic 16: *Life expectancy and burden of disease*). A significant proportion of people in Australia are now aged 75 years and over (6.2%) (Table 1.1).

**Table 1.1: Census-adjusted estimated resident population for Australia, 30 June 2006**

Age (years)	Number	Per cent of 65+ population	Per cent of total population
<b>Females</b>			
0–49	7,123,277	..	34.4
50–64	1,811,258	..	8.7
65–74	720,303	26.8	3.5
75–84	538,658	20.0	2.6
85+	217,654	8.1	1.1
<i>Total females 65+</i>	<i>1,476,615</i>	<i>55.0</i>	<i>7.1</i>
<i>Total females</i>	<i>10,411,150</i>	<i>..</i>	<i>50.3</i>
<b>Males</b>			
0–49	7,268,011	..	35.1
50–64	1,811,828	..	8.8
65–74	688,004	25.6	3.3
75–84	418,158	15.6	2.0
85+	104,337	3.9	0.5
<i>Total males 65+</i>	<i>1,210,499</i>	<i>45.0</i>	<i>5.8</i>
<i>Total males</i>	<i>10,290,338</i>	<i>..</i>	<i>49.7</i>
<b>Persons</b>			
0–49	14,391,288	..	69.5
50–64	3,623,086	..	17.5
65–74	1,408,307	52.4	6.8
75–84	956,816	35.6	4.6
85+	321,991	12.0	1.6
<b>Total persons 65+</b>	<b>2,687,114</b>	<b>100.0</b>	<b>13.0</b>
<b>Total persons</b>	<b>20,701,488</b>	<b>..</b>	<b>100.0</b>

Source: ABS 2007b.

Just over half (52%) of all older people in 2006 were aged 65–74 years (Table 1.1). About one-third (36%) were aged 75–84 and 12% were aged 85 years and over. On 30 June 2006, there were 2,441 people (460 males and 1,981 females) in Australia aged 100 and over (ABS 2007b).

The preliminary estimate for the older population from the 2006 Census is lower than the 2006 estimated population aged 65 years and over based on the 2001 Census and updated using births, deaths and migrations data (2,734,000) (which is still the basis for estimates of the age structure of the Indigenous population and of populations from different cultural and linguistic backgrounds) (Table 1.2, ABS 2007b). The difference between these two estimates is called the intercensal error and is consistent for each 5 year age group in the older population (1–2%) for both men and women up to age 85 years and over. For this age group the intercensal error is 6% for men and 4% for women.

## Sex

Women of all cultural backgrounds in Australia tend to live longer than men do (ABS 2002a: 8–9). Whereas the proportion of men and women aged 50–64 years are similar (50% in 2006), women make up a greater proportion (55%) of older Australians, and their predominance increases with age. In 2006 the proportions of women in the 65–74 years, 75–84 years and the 85 years and over age categories were 51%, 56% and 67% respectively. However, as life expectancy of males is increasing faster than that of women, the predominance of women in older age groups is now decreasing. The proportion of women in the 65–74 years age group peaked at 56% in 1965, the proportion in the age group 75–84 peaked at 64% in 1975, and the proportion in the 85 years and over age group peaked at 73% in 1983. In contrast, although the proportion of women in the 50–64 year age group peaked at 51% in the period just after World War II and again in the early 1970s, generally this has fluctuated between 49% and 50% since 1929 (ABS 2006e).

**Table 1.2: Estimated resident population aged 65 and over, by cultural diversity, age and sex, 30 June 2006**

Age (years) / sex	Australian-born		Overseas-born <sup>(a) (b)</sup>		Total	
	Indigenous <sup>(a)</sup>	Non-Indigenous	Other countries	English-speaking background	Per cent	Number <sup>(a)</sup>
<b>Per cent of older Australians (65+)</b>						
<b>Females</b>						
65–74	0.2	16.9	5.9	3.6	26.6	728,496
75–84 <sup>(c)</sup>	0.1	13.7	3.9	2.3	19.9	545,183
85+	–	6.1	1.1	1.1	8.3	226,993
<b>Total 65+</b>	<b>0.3</b>	<b>36.6</b>	<b>10.9</b>	<b>7.1</b>	<b>54.9</b>	<b>1,500,672</b>
<b>Males</b>						
65–74	0.2	15.3	6.2	3.8	25.2	697,645
75–84 <sup>(c)</sup>	0.1	9.9	3.4	2.1	15.5	424,790
85+	–	2.8	0.7	0.6	4.1	111,000
<b>Total 65+</b>	<b>0.2</b>	<b>28.0</b>	<b>10.4</b>	<b>6.5</b>	<b>45.1</b>	<b>1,233,435</b>
<b>Persons</b>						
65–74	0.4	32.2	12.1	7.5	52.2	1,426,141
75–84 <sup>(c)</sup>	0.2	23.6	7.3	4.4	35.5	969,973
85+	–	8.8	1.9	1.7	12.4	337,993
<b>Total 65+</b>	<b>0.5</b>	<b>64.4</b>	<b>21.3</b>	<b>13.6</b>	<b>100.0</b>	
<b>Total 65+ (number)</b>	<b>14,091</b>	<b>1,766,314</b>	<b>583,181</b>	<b>370,521</b>		<b>2,734,107</b>

(a) Limited aggregate population data from the 2006 Australian Census was released during the preparation of this topic. Because the age and sex breakdown for the Indigenous population and for the overseas-born population had not been released, this table presents the estimated resident population at 30 June 2006 based on 2001 Australian Census data. The preliminary age and sex breakdown of the total Australian population based on the 2006 Australian census is presented in Table 1.1.

(b) The cultural diversity classification for overseas-born people is based on country of birth. The English-speaking-background category consists of people whose country of birth was New Zealand, United Kingdom, Ireland, United States of America, Canada, and South Africa. The 'Other countries' category consists of people born overseas in other countries.

(c) Age category for Indigenous Australians is 75+.

Sources: ABS 2004c, 2006d, 2007g.

## Aboriginal and Torres Strait Islander peoples

In 2006, Indigenous Australians aged 65 years and over constituted only 0.5% of all older people, much smaller than their representation among the population generally (2.5%) (Table 1.2). This is the result of a much lower life expectancy—approximately 17 years lower than for the total population. The gap in life expectancy between Indigenous and non-Indigenous Australians is smaller at older ages. Life expectancy at age 65 is estimated to be 10.7 years for Indigenous males and 12.0 years for Indigenous females, around 6 years less for men and 8 years less for women than for Australian males and females respectively (AIHW 2005b; Kinfu & Taylor 2002) (see also Topic 42: *Older Aboriginal and Torres Strait Islander peoples*).

The 14,000 Indigenous people aged 65 years and over represented just 2.8% of the Indigenous population (ABS 2004c). Because of the life expectancy gap between Indigenous and non-Indigenous Australians, and the very low proportion of the Indigenous population who are aged 65 years and over, the ‘older Indigenous’ population is generally considered to include all those who are aged 50 years and over. In 2006, 11% of Indigenous Australians were aged 50 years and over. Women made up 53% of Indigenous Australians aged 50 years and over, and 55% of those aged 65 years and over (ABS 2004c).

## People born overseas

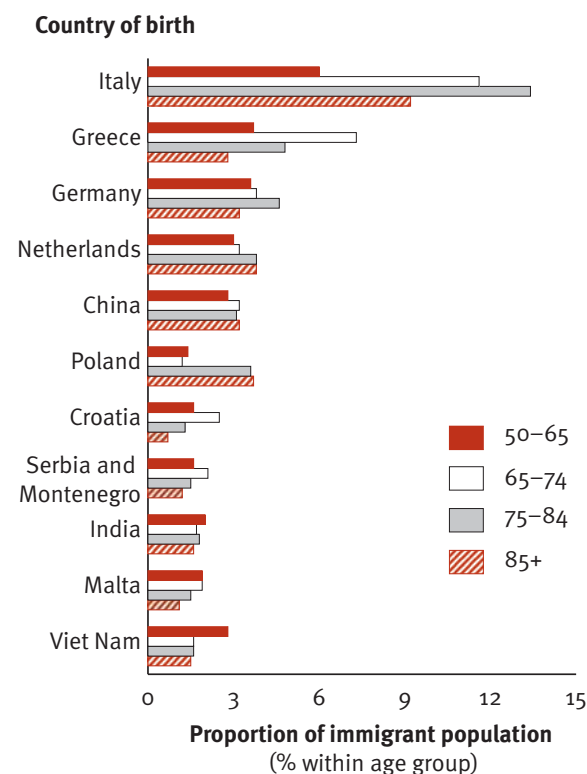
The cultural diversity of the older population has been growing, reflecting the immigration policies of the postwar period. In 2006, 35% (953,702 people) of older people were born overseas, with 39% of these coming from English-speaking countries, and 61% from non-English-speaking countries (see also Topic 43: *Older people from non-English-speaking countries*).

The mix of cultural backgrounds varies from cohort to cohort. The proportion of older overseas-born people from English-speaking countries was highest among the very old (47% for those aged 85 and over but only 38% each for people aged 65–74 years and 75–84 years). In contrast, the proportion of older overseas-born people from non-English-speaking backgrounds was highest among the age groups 65–74 years and 75–84 years (62% each), with the comparable figure for those aged 85 and over being 53%. Among mature-age people (aged 50–64 years) 34% (1,249,231) were born overseas, 40% of whom were born in English-speaking countries (Table A1.2).

For older people born overseas in countries where the main language is not English, the most common countries were Italy, Greece, Germany, the Netherlands and China. However, the proportions of older people born in each country were not consistent across the age groups, reflecting the waves of immigration that occurred at different points in time (Figure 1.1 and Table A1.2). For instance, people from Greece are more strongly represented among the 65–74 year age group than other age groups. The Polish population has one of the older population profiles (4% of people aged 75–84 were born in Poland compared with only 1% in the 65–74 and 50–64 year age groups). In contrast the Vietnamese have a younger age profile with 3% of people aged 50–64 born in Viet Nam compared with smaller proportions of older age groups (1.5% to 1.6%).

This pattern will change over the next two decades as postwar immigrants reach these age groups.

**Figure 1.1: Selected countries of birth of overseas-born Australians, by age, 2006**



Source: Table A1.2.

## THE CHANGING DEMOGRAPHIC PROFILE

# 2

Population ageing in Australia is a well-recognised demographic change which is projected to have major effects on the future size and composition of the Australian population, and consequently on economic growth and government expenditure. This topic looks at population ageing in Australia and how it compares with the experience in other countries.

Changes in population size and composition are also occurring at the state, regional and local levels, with population ageing a more striking feature of some local areas than others. The geographical distribution and mobility of older Australians (including the 'sea-change' phenomenon) have major implications for government, business, communities and individuals, and have generated much economic and social policy debate around issues such as income support, the provision and funding of health and aged care services, and family and community care.

### Population ageing

Australia's total population is projected to increase over the next few decades. However, it is also ageing, meaning that the number and proportion of older

people in the population is increasing. In Australia, this is the result of sustained low fertility levels and increasing life expectancy. Population ageing is not a new phenomenon in Australia but has been occurring over most of the twentieth century (except during the high-fertility postwar baby boom).

At 30 June 2006, 2.7 million Australians were aged 65 years and over (Table 2.1), representing 13% of the population. Of these, 52% were aged 65–74 years, 36% were aged 75–84 years and 12% (333,000) were aged 85 years and over (see also Topic 1: *Age, sex and cultural diversity*). Table 2.1 also shows the projected growth in the size of older population in absolute terms from 2006 to 2036. In the 30 years to 2036, the number of people aged 65 years and over is expected to more than double, from 2.7 million to 6.3 million, and will represent 24% of the total population at that time.

Over the next 30 years, the older population will also continue to change in its internal age structure. The number of older Australians aged 85 years and over, among whom the need for services and assistance is greatest, doubled over the past 20 years and is

**Table 2.1: Population aged 65 and over, by age and sex, 2006 to 2036**

Age (years)/Sex	2006 <sup>(a)</sup>	2016 <sup>(b)</sup>	2026 <sup>(b)</sup>	2036 <sup>(b)</sup>
<b>Females</b>				
65–74	730,000	1,091,000	1,368,000	1,498,000
75–84	547,000	624,000	957,000	1,207,000
85+	225,000	330,000	418,000	653,000
<i>Total females 65+</i>	<i>1,502,000</i>	<i>2,045,000</i>	<i>2,744,000</i>	<i>3,357,000</i>
<i>Total females</i>	<i>10,330,000</i>	<i>11,441,000</i>	<i>12,469,000</i>	<i>13,306,000</i>
<b>Males</b>				
65–74	700,000	1,057,000	1,294,000	1,424,000
75–84	425,000	536,000	849,000	1,057,000
85+	108,000	191,000	272,000	456,000
<i>Total males 65+</i>	<i>1,233,000</i>	<i>1,784,000</i>	<i>2,416,000</i>	<i>2,937,000</i>
<i>Total males</i>	<i>10,225,000</i>	<i>11,368,000</i>	<i>12,405,000</i>	<i>13,230,000</i>
<b>Persons</b>				
65–74	1,430,000	2,147,000	2,663,000	2,922,000
75–84	972,000	1,160,000	1,806,000	2,264,000
85+	333,000	521,000	690,000	1,108,000
<b>Total persons 65+</b>	<b>2,735,000</b>	<b>3,829,000</b>	<b>5,159,000</b>	<b>6,294,000</b>
<b>Total persons</b>	<b>20,555,000</b>	<b>22,808,000</b>	<b>24,873,000</b>	<b>26,536,000</b>

(a) Census-adjusted estimate resident population, 30 June 2006.

(b) Projections based on 2001 Australian census data.

Source: ABS 2006t, 2007b.



projected to increase more rapidly than other age groups: from 333,000 in 2006 to 1.1 million in 2036 (from 1.6% to 4.2% of the total population). People aged 85 years and over are also projected to increase their share of the total older population from 12% of older Australians in 2006 to 18% in 2036. Over this period, the number of centenarians is projected to increase from less than 5,000 to more than 25,000 (ABS 2006t).

### International comparison

Population ageing is common to most developed countries and, as in Australia, is caused by sustained low fertility and increasing life expectancy. In 2005, the age structure of Australia's population was similar to that of Canada and the United States of America (Table 2.2). Generally, the European countries and Japan had smaller proportions of children and higher proportions of older people than Australia. In contrast, other countries in Asia tended to have proportionally more children and far fewer older people, generally

reflecting considerably higher fertility rates and lower life expectancies at birth than those experienced in Australia.

### Geographical distribution

The age structure of the population varies across the different geographical regions of Australia, which has implications for the provision and funding of services for older Australians. When this report was prepared, population distribution estimates were not available from the 2006 Census at regional and local levels, so the basis for the following analysis is the 2001 Census.

In 2001, South Australia had the highest proportion of people aged 65 years and over (14.7%) followed by Tasmania (13.9%), then New South Wales and Victoria (13.1%) (ABS 2003b). Of the population residing in major urban areas, 12.5% were aged 65 years and over. The proportion was larger in other urban areas (14.4%) and in larger rural areas (13.9%), but lower in the rural balance (9.5%).

**Table 2.2: Population age structure, international comparison, 2005 and 2010**

	2005		2010		Fertility rate <sup>(a)</sup> Rate	Life expectancy at birth <sup>(b)</sup> Years
	Aged 65+	Median age	Aged 65+	Median age		
	Per cent	Years	Per cent	Years		
Italy	20.0	42.3	21.1	44.3	1.4	80.6
Japan	19.7	42.9	22.4	44.4	1.4	82.8
Greece	18.2	39.7	18.4	41.5	1.3	78.7
Sweden	17.2	40.1	18.6	41.1	1.7	80.8
France	16.6	39.3	16.9	40.5	1.9	80.0
United Kingdom	16.0	39.0	16.5	40.3	1.7	79.0
Canada	13.1	38.6	14.2	40.1	1.5	80.7
<b>Australia</b>	<b>13.1</b>	<b>36.7</b>	<b>14.3</b>	<b>38.2</b>	<b>1.8</b>	<b>82.0</b>
United States of America	12.3	36.1	12.8	36.6	2.0	77.9
New Zealand	12.3	35.8	13.2	37.0	2.0	79.8
Hong Kong (SAR of China)	12.0	38.9	12.4	41.1	1.0	82.2
Korea, Republic of	9.4	35.1	11.3	38.0	1.2	78.2
Singapore	8.5	37.5	10.0	40.6	1.3	79.4
China (exc. SARs & Taiwan)	7.6	32.6	8.3	34.9	1.7	72.6
Indonesia	5.5	26.5	6.0	28.2	2.2	68.7
Viet Nam	5.4	24.9	5.4	26.9	2.1	71.9
India	5.3	24.3	5.7	25.6	2.8	64.9
Malaysia	4.6	24.7	5.1	26.3	2.6	74.1
South Africa	4.2	23.5	5.1	23.9	2.6	44.1
Philippines	3.9	22.2	4.3	23.6	2.8	71.6
Papua New Guinea	2.4	19.7	2.5	20.7	3.6	57.1

(a) Births per woman aged 15–49. ABS projections are medium variant projections for the period 2005–2010.

(b) ABS projections are medium variant projections for the period 2005–2010, for males and females combined.

Source: ABS 2006s: Table 2.

At the more local level, the highest concentrations of people aged 65 years and over were located mainly in the coastal areas in the eastern states of Australia. Of the ten statistical local areas with the highest proportions of older people, nine were coastal locations, mainly in Queensland, but also in New South Wales, Victoria and South Australia. The highest were Queenscliffe (Vic), Victor Harbour (SA) and Bribie Island (Qld) with each having 30% of their population aged 65 years and over.

Ageing in regional areas is affected most by the proportion and age structure of people entering or leaving an area, rather than influences such as fertility and mortality which underlie population ageing in Australia as a whole. A region's population will age if a relatively large number of older people move into an area, perhaps attracted by comparatively lower living costs or by lifestyle opportunities (ABS 2003b). Conversely, a region's population will age if relatively large numbers of young people leave the area (e.g. because of educational and employment opportunities in other locations). About 40% of the population moved residence between the 1996 and 2001 Censuses. Mobility rates were lowest for those aged 65–74 years (20%) and 75–84 years (19%), then increased with age—85–94 years (26%) and 95 years and over (31%), possibly reflecting a tendency of the very old to move closer to family members or into more suitable accommodation as their need for care and support increased.

## Retirees and the sea change phenomenon

The movement of significant numbers of people from metropolitan areas and regional cities to coastal areas has become commonly known as the 'sea change phenomenon' and has attracted considerable attention at local and national level (Gurran et al. 2005). In Australia's coastal regions, the largest increase in population between 2000 and 2005 occurred in the Gold Coast–Tweed region, up by an average 14,500 people per year (or 3.3% per year). Mandurah, to the south of Perth, recorded the fastest growth over the same period, with an average growth rate of 5.1% per year. This growth was also faster than any capital city. Hervey Bay experienced the second fastest growth (up 4.3% per year) followed by the Sunshine Coast (3.5% per year) (ABS 2006f). In fact, the rate of growth in many coastal local government areas is equivalent to or higher than that of metropolitan areas.

Although retirees have contributed to the sea change phenomenon, contrary to popular belief they have not been the major drivers of coastal population growth (Gurran et al. 2005). For example, during the year before the 2001 census, 79% of people who moved to 'sea change' areas were less than 50 years old (ABS 2004h). In fact, new residents of high-growth coastal regions have actually had a younger age profile than Australia as a whole and significantly younger than the existing profile of communities affected by the sea change phenomenon. Nevertheless, the spending patterns of retirees moving to the coast, combined with tourism spending, determine many of the jobs and business opportunities that attract workforce age migration (Smith & Doherty 2006).

Of new residents aged 55–64 years (the ages associated with early retirement) in high-growth coastal areas, 44% had come from capital cities, 32% from a large population centre (e.g. Newcastle, Geraldton) and 24% from country areas. The origins of new residents aged 65 years and over, who would mainly have been retirees, were a little more evenly spread—39% had come from a capital city, 34% from a large population centre, and 26% from a country area (ABS 2004h).





## Social and economic context

- 3 Marital status and living arrangements
- 4 Housing
- 5 Transport
- 6 Workforce participation
- 7 Retiring from paid work
- 8 Community and civic participation
- 9 Providing care
- 10 Social participation and leisure
- 11 Use of technology
- 12 Income, wealth and expenditure
- 13 Age Pension and superannuation
- 14 Intergenerational transfers

# 3

## MARITAL STATUS AND LIVING ARRANGEMENTS

Living arrangements are an important factor in the general health and wellbeing of older people, as they are for Australians generally. Despite a common myth that most older people live in cared accommodation, the majority of people aged 65 years and over live in a private dwelling with their husband or wife. The last 30 years in Australia have witnessed large changes in the stability and longevity of marital relationships, with increasing separation, divorce and remarriage rates. These changes are beginning to be reflected in the marital status of current older Australians with consequences for living arrangements.

Marital status and living arrangements may affect an individual's perception of vulnerability and feelings of safety at home. Older people are less likely than average to feel safe or very safe when at home alone, either after dark or during the day (AIHW 2007c). Being married and/or living with someone else may contribute to a sense of protection from potential harm.

### Marital status

Preliminary data from the 2006 Census show that the majority (57%) of older people were married (Table 3.1). This was evident for people aged 65–84 years; among people aged 85 years and over, however, almost

two-thirds (65%) were widowed. The proportion widowed increased with each age group, and the proportion divorced decreased. Almost 30% of older people were widowed in 2006 (759,536 people), and just under 8% (204,816) were divorced.

The marital status profile of men differed significantly from that of women. Older women were less likely to be married (45%) than their male counterparts (72%), and more likely to be widowed (42% compared with 12%). Almost 80% of women aged 85 years and over were widows in 2006 (170,078 people) compared with 37% of men. The number of older people who never married was higher for men (6%) than women (4%), with almost 70,000 older men having never married by 2006.

Over the last 30 years, life expectancy at age 65 has increased—currently, at age 65, men are likely to live another 17.5 years and women another 21.1 years (AIHW 2006e; see Topic 16: *Life expectancy, health status and causes of death*). In addition, although male mortality remains higher than female mortality, in the last 20 years the gap has narrowed (ABS 2005c). These demographic changes are gradually being reflected in the decreasing proportions of women at older ages who are widows. Widowhood has decreased for all age groups during the decade since 1996 (Table A3.1). This decrease was most pronounced in the

**Table 3.1: Registered marital status, by age and sex, 2006 (per cent)**

	Married	Divorced	Separated	Widowed	Never married	Total (per cent)	Total (number)
<b>Males</b>							
65–74	75.0	9.8	3.2	5.9	6.1	100.0	668,500
75–84	70.2	5.8	2.2	16.4	5.5	100.0	412,500
85+	52.6	3.3	1.5	37.2	5.4	100.0	105,000
65+	71.3	7.8	2.7	12.3	5.8	100.0	1,186,000
<b>Females</b>							
65–74	59.8	10.6	2.5	23.4	3.7	100.0	705,000
75–84	37.2	5.7	1.2	52.0	3.9	100.0	535,600
85+	13.5	2.9	0.5	78.1	5.0	100.0	217,800
65+	44.6	7.7	1.7	42.1	4.0	100.0	1,458,400
<b>Persons</b>							
65–74	67.2	10.2	2.9	14.9	4.9	100.0	1,373,400
75–84	51.5	5.8	1.6	36.5	4.6	100.0	948,100
85+	26.3	3.0	0.8	64.8	5.2	100.0	322,800
<b>65+</b>	<b>56.6</b>	<b>7.7</b>	<b>2.2</b>	<b>28.7</b>	<b>4.8</b>	<b>100.0</b>	<b>264,4400</b>

Source: Table A3.1.

75–84 year age group (44% of those aged 75–84 in 1996 were widowed compared with 36% of 75–84 year olds in 2006) (Figure 3.1).

In contrast, the proportions of older people who were married or divorced increased for all age groups over the last decade. The increase in the proportions of people who are married was most pronounced in the 75–84 year age group, whereas the increase in divorced people was most evident among the younger age group. Among people aged 65–74 years, the proportion who were divorced was 10% in 2006 compared with 6% in 1996 (see Figure 3.1 and Table A3.1).

### Living arrangements

ABS projections based on data from the 2001 Census estimate that over 2.5 million people aged 65 years and over (representing 94% of older people) lived in private dwellings as members of family, group and lone-person households in 2006 (Table A3.2).

Just over 6% were usual residents in non-private dwellings, which include hotels, motels, guest houses, and cared accommodation such as hospitals, aged care homes and supported accommodation. The large majority of people in each age group lived in private dwellings, although 26% of the very old (aged 85 years

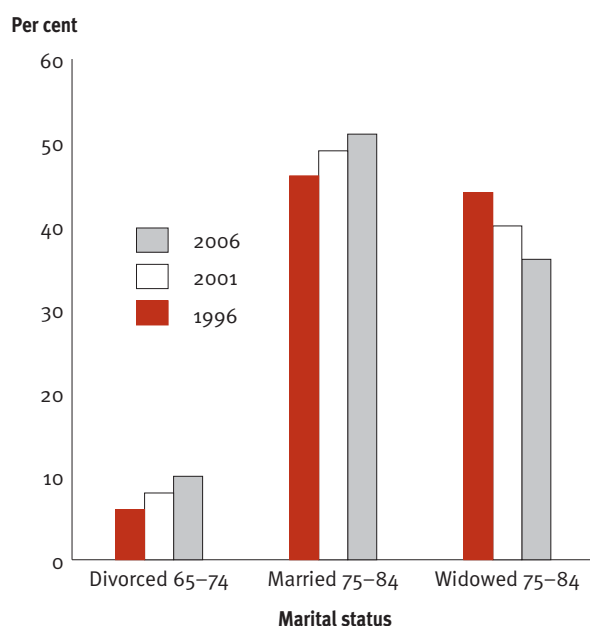
and over) lived in non-private dwellings. On 30 June 2006, 145,175 people aged 65 years and over were permanent residents in residential aged care homes, more than half of whom were aged 85 years and over (AIHW 2007f, see Topic 40: *Residential aged care resident profiles*).

Family households were the most common living arrangement in private dwellings for older people in 2006, with 58% living with their married or de facto partner in couple households (Table A3.2). The percentage of older people living with their partner declined significantly with increasing age, with only 26% of people aged 85 years and over living with a spouse in a couple-family household (Figure 3.2).

Around 783,000 (29%) older people lived alone in private dwellings in 2006, with the percentage increasing to 39% among those aged 85 years and over. Older people who live alone are at risk of experiencing loneliness and social isolation and are more likely to need outside assistance in the case of illness. This may more often be the case for unmarried older men who live alone, because unmarried women typically report stronger social networks than unmarried men (Yeh & Lo 2004).

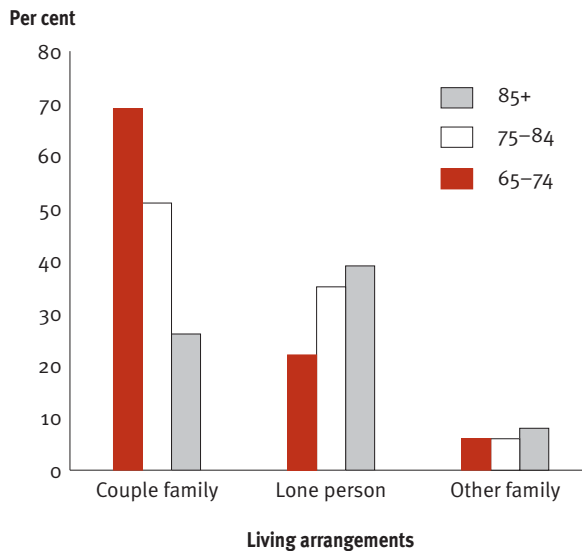
ABS projections (Series II) suggest that, by 2026, about 907,000 people aged 75 years and over will be living alone, most of them older women (685,600) (Table A3.2). Although ABS projections suggest that the number of older people living alone is set to increase, increases in life expectancy (and thus later age of widowhood) will also see an increase in the number of older Australians living with a partner. Under Series III projections (which assume a continuation of the 1986–2001 rate of change in propensities to belong to different living arrangements) the ABS estimates that by 2026 living with a partner will replace living alone as the most common living arrangement for people aged 80–84 (ABS 2004e).

**Figure 3.1: Selected changes in marital status, by age group, 1996, 2001, 2006**



Source: Table A3.1.

**Figure 3.2: Living arrangements, by age, 2006**



Source: Table A3.2.

### Feelings of safety at home

Feelings of safety are commonly measured in terms of whether people feel safe in selected situations when they are alone. In this sense, safety refers to individuals' perceptions of their vulnerability to or protection from personal harm, rather than, for example, national security. Feelings of safety may relate to people's perception of crime in their neighbourhood, their level of trust in the community and their sense of capacity to be in control (ABS 2004g).

Most older people feel safe or very safe at home alone during the day (93%), and to a lesser extent, after dark (84%) (Table A3.3). Over 7% of respondents reported feeling unsafe at home alone after dark, with 3% stating that they were never home alone at this time. People aged 65 years and over were less likely than average to feel safe or very safe when at home alone, either after dark or during the day (ABS 2006h).

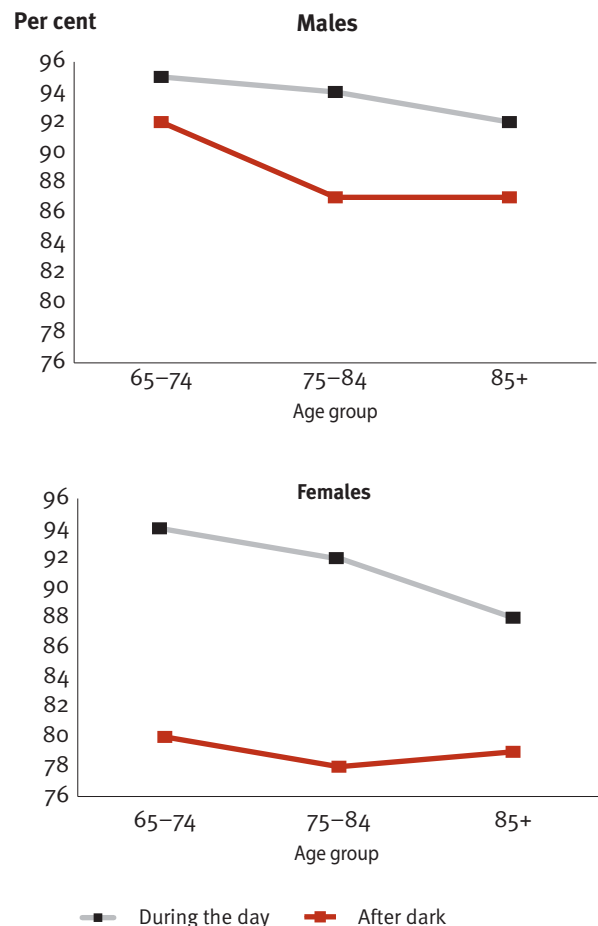
Perceptions of safety varied between males and females, especially after dark—90% of males compared with 79% of females felt safe or very safe at home alone after dark, with the proportions of females who felt unsafe or very unsafe double the proportions of males. A sex difference in feelings of safety at home alone during the day was also evident, but was not as pronounced—95% of males felt safe or very safe at home alone during the day, compared with 93% of females. The gap for women between their feelings of safety during the day compared with after dark was much greater than the gap for men. Women's sense of

vulnerability is considerably heightened when they are home alone at night.

Feelings of safety at home also vary according to age. There was generally a small but noticeable decrease in feelings of safety with increasing age (Figure 3.3). This decline was especially evident for males; for females it was most evident in terms of feeling safe at home alone during the day. Older women's feelings of safety at home alone after dark varied little by age.

Adverse feelings of safety at home may affect the quality of life of older people and for some may contribute to decisions to move to forms of congregate living or cared accommodation of some type. Strategies for increasing the feeling of safety by older people living alone could include better housing and urban design that increases security and community living that promotes social connectedness.

**Figure 3.3: Percentage of people who felt safe or very safe at home alone, by age and sex, 2006**



Source: Table A3.3.



Secure and appropriate housing is fundamental to the health and wellbeing of older Australians. As well as meeting basic human needs for shelter, the home is a major store of household wealth, particularly for older people (see Topic 12: *Income, wealth and expenditure*). For certain groups of older people (those in the private rental market) housing costs are a significant budget item. The home is also increasingly the site of aged care service delivery of aged care services in the community (see Topic 36: *Home and Community Care Program*, Topic 37: *Community Aged Care Packages*, Topic 38: *Extended Aged Care at Home and Extended Aged Care at Home Dementia Packages*, and Topic 39: *Respite Care*). Its physical amenity and safety are important environmental factors that need to be considered (and perhaps modified) to reduce the risk of falls and injury among older people, and, more generally, to facilitate independent living among older people with disability.

### Housing profile

The period 1991–2001 covering the three Census years (1991, 1996 and 2001) witnessed significant changes in the housing profile of older people (at the time of writing comparable data from the 2006 Census was not available). The proportion of older Australians living in non-private dwellings (e.g. aged care accommodation and hospitals) fell from 9.9% to 8.1% (Table 4.1), reflecting the increased provision of aged care services to people in their own homes that has been occurring over the last 15 years. This decline is apparent for each age group, although over one-fifth of those aged 80 years and over still lived in non-private dwellings in 2001.

Over this 10-year period, the proportion of older people who owned (with or without a mortgage) their own home increased from 71% in 1991 to 73% in 2001. The vast majority owned their homes outright, with a relatively

**Table 4.1: Housing profile of older Australians, by age, 1991, 1996 and 2001 (per cent)**

	Year	Age group (years)				Total 65 and over
		65–69	70–74	75–79	80 and over	
<b>Private dwellings</b>						
<b>Owners</b>						
Owner	1991	69.2	67.4	65.1	52.7	64.7
	1996	73.2	71.1	67.3	54.1	67.3
	2001	73.0	73.2	70.4	56.8	68.5
Purchaser	1991	8.9	7.3	5.3	3.5	6.7
	1996	5.8	5.9	4.8	3.0	5.0
	2001	5.7	4.4	4.2	3.3	4.5
<b>Renters</b>						
Public tenant	1991	5.3	5.7	5.7	4.4	5.3
	1996	4.8	5.0	5.0	3.9	4.7
	2001	4.5	4.7	4.5	3.8	4.4
Private tenant	1991	6.3	6.5	6.5	5.4	6.2
	1996	7.3	6.6	6.7	5.8	6.7
	2001	8.0	7.2	6.7	6.1	7.1
<b>Other tenures</b>						
	1991	6.5	7.5	7.9	7.1	7.1
	1996	5.6	6.9	8.8	9.4	7.4
	2001	6.1	6.8	8.1	9.3	7.5
<b>Non-private dwellings</b>						
<b>All non-private dwellings</b>						
	1991	3.7	5.5	9.6	26.9	9.9
	1996	3.3	4.6	7.4	23.7	9.0
	2001	2.7	3.7	6.1	20.7	8.1

Source: Howe 2003; reproduced from AIHW 2005b:Table A6.2.

small (and decreasing) proportion still paying off a mortgage.

There was a modest change in the rental housing profile of older Australians, with the proportion renting privately owned dwellings increasing from 6.2% to 7.1%, and the proportion in public housing falling from 5.3% to 4.4%. These trends were generally evident for all age groups.

## Household tenure

Whereas 70% of all Australian households living in private dwellings were home owners, the figure for households with a reference person aged 65 and over was 84% in 2001 (Table 4.2). The comparable figure for households with a reference person aged less than 65 was 67%. Households with an older reference person were far more likely to own their home outright (81%) compared with younger households (21%). Home ownership therefore constitutes a significant financial resource for many older households (see Topic 12: *Income, wealth and expenditure*) and high rates of home ownership are the result of wealth accumulation in this form over a lifetime. In addition, home ownership is a personal and social resource: long-term residence in their own homes provides people with a sense of security and continuity.

The majority of older households own their home, but 6.0% of older households were public renters and 5.1% were in private rental accommodation. The rental profile of older households is very different from that of younger households where only 3.6% are in public rental accommodation and 19.1% are in the private rental market. Security of housing tenure can have an influence on quality of life and overall wellbeing, particularly for older people. The ability to remain in

the community with assistance has been shown to be important to people's capacity to maintain health and wellbeing (Waters 2001). People in private rental accommodation have the least secure form of tenure; this is the situation for a small but growing segment of the older population (Table 4.1).

Research by the Australian Housing and Urban Research Institute suggests that Australia is currently on the threshold of a steady and sustained increase in the number of low-income older renters, with the number of people aged 65 years and over living in low-income rental households projected to more than double from 195,000 in 2001 to 419,000 in 2026 (Jones et al. 2007:Table 16). The greatest projected change is among those aged 85 years and over, where the number of low-income renters is estimated to increase from 17,300 to 51,000. The number of low income older persons living alone is projected to more than double from 110,800 households in 2001 to 243,600 in 2026 (Jones et al. 2007:Table 17). Approximately two-thirds of these households will be lone women. The demand for housing for low-income older couple households is projected to increase from 32,200 to 69,900 over the same period.

## Housing affordability

Housing affordability is discussed here in terms of the proportion of household income spent on housing costs, where housing costs are the recurrent outlays by household members in providing for their shelter. Data on housing costs reported in this section are from the 2003–04 ABS Survey of Income and Housing (SIH) and are limited to major cash outlays on housing, that is, mortgage repayments and property rates for owners,

**Table 4.2: Housing tenure profile of household, by age of reference person, 2000–01 (per cent)**

Housing tenure type	Older households (65+)	Younger households (under 65)	All households
Owner without a mortgage	80.7	27.5	38.2
Owner with a mortgage	3.6	39.4	32.1
State/territory housing authority	6.0	4.7	5.0
Private renter	5.1	25.0	21.0
Other landlord	1.4	1.4	1.4
Total renters	12.5	31.1	27.4
Other tenure type	3.3	2.0	2.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Total number of households ('000)</b>	<b>1,480.2</b>	<b>5,834.7</b>	<b>7,314.9</b>

Source: Reproduced from AIHW 2005b:Table A6.3.

and rent. A fuller measure of housing costs would include a range of outlays not collected in the SIH, but which are necessary to ensure that the dwelling can continue to provide an appropriate level of housing services, e.g. repairs, maintenance, body corporate fees and dwelling insurance. The ABS estimates suggest that adding these costs to SIH housing costs estimates would more than double average housing costs for owners without a mortgage and would increase average housing costs for owners with a mortgage by about 15% (see ABS 2006m for further detail about this measure and its limitations).

In general, because of their high rates of home ownership, households with a reference person aged 65 years and over spend a lower proportion of their gross income on housing costs compared with younger households. In 2003–04, older households spent 7% of their gross income on housing costs compared with 14% for all households (ABS 2006m:Table 8). Older households which own their own home without a mortgage spent 4% of their income on housing, and older households with a mortgage spent 14%.

However, the situation is different for older renters. Compared with younger households in public rental accommodation, older renters in public housing spent a larger proportion of their gross income on housing (23%), and significantly more than older home-owner households. For public renters, state housing authorities consider that housing costs taking up more than 25% of household income may cause affordability problems for low-income households (SCRCSSP 2006).

Older households living in private rental accommodation are most at risk of housing affordability problems, spending 33% of their gross income on housing (ABS 2006m:Table 8). Older private renters spent the highest

proportion of their income on housing costs compared with households of any age group or tenure type.

In interpreting this data it is important to note that the average income of older households is relatively low (see Topic 12: *Income, wealth and expenditure*). In addition, households are sometimes reimbursed some or all of their housing costs, but these reimbursements are not collected in the SIH. Commonwealth Rent Assistance (CRA), paid by the Australian Government to qualifying recipients of income support payments and family tax benefit, is the most relevant type of reimbursement. Attempts to reliably collect this information in a household survey have not been successful (ABS 2006m). The ABS estimates that if rent assistance receipts are subtracted from gross housing costs, the housing costs of households receiving rent assistance will be about 30% lower on average, and the housing costs of all households renting from landlords other than the state/territory authorities will be about 10% lower on average (ABS 2006m).

An area requiring closer examination is the nearly 30% of older CRA recipients who spend 30% or more of their income on rent. In particular, 6.5% (more than one in 20) of older CRA recipients spend over half their total income on rent after CRA payments. For people in extreme housing stress (paying half or more of their income on rent), those paying ‘private rent’ and ‘maintenance and other fees’ are over-represented. Those who spend less than half but over 30% of their income on rent are mainly paying ‘private rent’ or for ‘board and lodging’ (Table 4.3).

Although most of the current cohort of older Australians enjoy secure and affordable housing, a small but

**Table 4.3: CRA recipients aged 65 and over, affordability after CRA payment by rent type, June 2002 (per cent)**

	Less than 25%	25% to < 30%	30% to < 50%	50% and more	Total
Private	50.1	15.5	27.0	7.4	100.0
Board and lodging	45.5	13.8	35.7	5.0	100.0
Lodging only	62.6	14.9	18.9	3.7	100.0
Site and mooring fees	93.4	4.3	2.0	0.2	100.0
Maintenance and other fees	80.6	2.5	5.1	11.8	100.0
<b>Total</b>	<b>57.4</b>	<b>12.9</b>	<b>23.2</b>	<b>6.5</b>	<b>100.0</b>

*Note:* Older people in government-funded hostels or nursing homes are not eligible for CRA, hence they are not part of the base population in this table.

*Source:* 2002 Department of Family and Community Services (FaCS) Housing Data Set.

growing proportion of low-income older renters are vulnerable to housing stress. Changes evident in the Australian housing system are likely to affect this group of current older renters in terms of housing affordability and availability—these changes also signal the possibility of very different housing profiles among future generations of older Australians. Across all ages in the Australian population there has been rising demand for affordable housing both for purchase and rental. However, the supply or availability of low-rent housing in the private rental market has not kept pace with this increased demand, particularly by low-income households (Yates et al. 2004).

Several social and economic factors have changed housing patterns, with increases in the number of people not achieving or unable to sustain home ownership which is reflected in people remaining longer in the private rental market. Also, the availability of social housing is declining with a drop in the level of public housing stock nationally from around 372,100 dwellings in 1995–96 to 341,380 dwellings in 2005–06 (AIHW 2005b, 2006f). These changes may result in people who have spent all or most of their adult lives in private rental housing having higher lifetime housing costs, with subsequent implications for their ability to achieve financial independence in retirement (AIHW 2005b; Reference Group on Welfare Reform 2000).

Access to transport is important for participation in community, social and everyday life (see Topic 6: *Social participation and leisure*, and Topic 8: *Community and civic participation*). A fit and healthy older person will generally have a wide choice of transport options—choices similar to those they had as a younger adult. As people age, the transport choices they have alter to suit changing capabilities. Walking, driving and using public transport may become more difficult and some people will become dependent, in varying degrees, on others to meet their transport needs.

### Access to transport

The ABS General Social Survey (GSS) shows that 80% of those aged 65 years and over can easily get to places as needed, compared with 84% of all over aged 18 (Table 5.1). This ability declines with age, so that by age 85 years and over for men and age 75–84 years for women, only around two-thirds (65% and 68% respectively) can travel easily. Older people living in major cities have more difficulty than those living in inner regional areas; 77% of older people in major cities can easily get to the places they need to go compared with 86% for those living in inner regional areas (Table 5.1; ABS 2007d).

Transport availability is critical for many older people’s ability to access services. Transport difficulties or distance from services was the main reason cited by over half (54%) of those people aged 85 years and over who have difficulty accessing service providers (Table A5.1).

### Use of private vehicles

With increasing financial wellbeing and longer term driving histories of people currently moving into older age groups, there is evidence that cars are becoming increasingly important for older people. Projections by VicRoads suggest that 99% of older men and 94% of older women in Victoria will hold a driver’s licence by 2031 (Victoria Parliament Road Safety Committee 2003). Many recent retirees in Australia had two-car households and an increasing proportion of older people (particularly women) are licensed to drive (Rees & Lyth 2004).

In 2002, 66% of older people had access to a car to drive; in 2006 the comparable figure was 73% (ABS 2003c:31, 2007d:41). However, access to a car to drive still decreases with age (82% of people aged 65–74 years compared with 68% of those aged 65–74 years and 32% of those aged 85 and over) (Table 5.2).

Access to a car to drive was most restricted for older people in metropolitan areas (69%) where a wider array of public transport options is available. In contrast, 81% of older people in inner regional areas and 78% in other areas had access to a car to drive.

A lower proportion of older women have access to a car to drive than older men (60% compared with 87% respectively) (Table 5.2), and a higher proportion take trips as a passenger (Table A5.2). In 2002, 66% of trips taken by older people in the Sydney Greater Metropolitan Region were taken by car. Men were drivers for 62% of their trips and passengers for only 8%, compared with

**Table 5.1: Ease of getting to places needed, by age, sex, and remoteness area, 2006 (per cent)**

Remoteness Areas	Male					Female					Persons				
	65–74	75–84	85+	65+	All (18+)	65–74	75–84	85+	65+	All (18+)	65–74	75–84	85+	65+	All (18+)
<b>Can easily get to the places needed</b>															
Major cities	86.3	84.0	62.3	83.6	84.6	78.0	64.9	63.3	71.6	81.8	82.0	73.4	62.9	77.1	83.1
Inner regional areas	95.1	90.9	77.1	92.6	88.6	86.0	77.2	61.9	80.4	86.5	90.5	83.4	66.8	86.1	87.6
Other	78.9	81.0	70.3	79.3	81.6	94.1	64.0	87.7	82.7	84.1	86.0	71.6	83.2	81.0	82.9
All areas	87.5	85.4	65.4	85.3	85.2	81.5	67.8	65.0	74.7	83.0	84.5	75.7	65.1	79.6	84.1
<b>Often have difficulty, can't get to places needed, or doesn't go out/housebound</b>															
Major cities	**3.1	*4.5	**22.6	*5.2	3.5	*6.0	15.2	*22.4	11.2	5.2	*4.6	10.5	*22.5	8.4	4.4
Inner regional areas	0.0	**4.0	0.0	**1.5	2.9	*7.2	*13.5	**6.7	9.5	4.7	**3.6	9.2	**4.6	5.8	3.8
Other	*9.2	**12.1	0.0	*9.8	*6.0	**2.7	*19.6	**10.5	*9.4	6.0	*6.1	*16.3	7.8	*9.6	6.0
All areas	*3.1	*5.1	*17.3	4.8	3.6	*6.0	15.2	*18.0	10.6	5.2	4.6	10.7	17.8	7.9	4.4

\* Estimate has a relative standard error of 25% to 50% and should be used with caution.

\*\* Estimate has a relative standard error greater than 50% and is considered too unreliable for general use.

Note: Not all responses are included in the table.

Source: AIHW analysis, ABS 2007c, 2007d.

31% as a driver and 31% as a passenger for women. Although over half of women aged 76–81 years in the Australian Longitudinal Study on Women's Health drove a car as their main form of transport, around a quarter reported that their main form of transport was a car driven by someone else (Byles et al. 2007).

## Use of public transport

Data on the use of public transport by older people are limited, but suggest that they are not intensive users (see also Productivity Commission 2005). In a 2002 survey of household travel conducted in the Sydney Greater Metropolitan Region, only 10–11% of trips taken by older people were on public transport (bus, ferry, rail or taxi) (Table A5.2; ABS 2004g). Only 9% of trips for those aged 61–70 years and 12% for those aged 70 years and over were taken by public transport. In Sydney, between 1991 and 2004, there was a 7% increase in the use of cars by those aged 70 years and over, almost equally at the expense of public transport and walking (Transport and Population Data Centre 2006).

The most common reasons for older people not using public transport are difficulty getting into or out of vehicles (53%), difficulty getting to stops and stations (30%), lack of seating combined with difficulty standing (12%) and pain or discomfort (12%) (ABS 2004g).

## Factors influencing access to transport

Difficulty accessing transport increases with age, but this is mainly a result of the increasing proportions of people with disabling health conditions rather than age itself. Physiological changes related to ageing make walking and driving more difficult, and may preclude driving altogether, although these changes are not uniform across age groups. Neurodegenerative diseases such as dementia affect concentration, geographical orientation, visuo-spatial skills, attention, information processing and problem solving, judgment, memory, reaction time and coordination (Hecker & Snellgrove 2002), which are all important capabilities for safe driving and for getting about independently, particularly in unfamiliar areas. Arthritis and other musculoskeletal conditions, hearing and vision loss, cardiovascular disease, and difficulties with balance can also affect a person's mobility options.

## To drive or not to drive?

A significant lifestyle decision for many older people is whether to keep driving. Forfeiture of a driving licence is considered a major loss of control, leading to greater dependence on others, and loss of flexibility and choice, and usually results in a reduction in the number of trips made. The person may no longer be able to participate in activities which contribute to feelings of self-worth, with decreased quality of life and possible associated depression.

**Table 5.2: Whether had access to motor vehicles to drive, by remoteness, 2006 (per cent)**

Sex/Remoteness areas	65–74	75–84	85+	65+	18+
<b>Males</b>					
Major cities of Australia	90.6	80.6	56.1	84.4	..
Inner regional Australia	97.1	91.7	89.8	94.8	..
Other	93.9	77.5	85.2	88.6	..
All areas	92.5	83.2	63.7	87.3	90.2
<b>Females</b>					
Major cities of Australia	66.0	51.9	*14.4	55.2	..
Inner regional Australia	84.5	62.9	*15.8	69.7	..
Other	81.5	61.2	*7.6	67.7	..
All areas	71.9	55.3	*14.2	59.8	82.2
<b>Persons</b>					
Major cities of Australia	77.8	64.6	30.3	68.5	84.0
Inner regional Australia	90.7	76.0	39.4	81.4	90.7
Other	88.1	68.5	27.7	77.9	90.6
<b>All areas</b>	<b>82.0</b>	<b>67.8</b>	<b>32.0</b>	<b>72.5</b>	<b>86.1</b>

\* Estimate has a relative standard error of 25% to 50% and should be used with caution.

Source: AIHW analysis, ABS 2007c.



Many older drivers stop driving for health reasons. However, many health conditions which affect driving capacity also affect general mobility (hence walking and public transport use), which increases risks for older people as pedestrians. Evidence suggests that, with the exception of those with impaired mental status, most older adults will adapt their driving to suit their physical condition, typically by limiting the distance and conditions under which they drive, for example driving only in good weather and in well-known local areas, and restricting night driving (Anstey & Smith 2003).

Apart from health considerations, the timing of the decision to stop driving is associated with driving history and cultural beliefs and practices. For example, women with a strong driving history are likely to retain their licences for as long as possible. Where women have less experience driving and drive less distance per year, or have a spouse available to drive them, they are more likely to stop driving voluntarily, but unnecessarily (Hakamies-Blomqvist & Siren 2003; Stutts 2003). Financial considerations and availability of alternative transport options are also factors in the decision.

All states and territories have age-related requirements for the provision of medical certificates to support driving licence renewal (Austroads Inc. 2003), and restricted licences are available in at least one state (NSW Committee on Ageing 2000). There is evidence that mandatory testing increases the likelihood of fit older drivers prematurely allowing their licence to lapse. This can be seen in the drop in the proportion of licensed drivers aged 80 years and over in New South Wales compared with Victoria, and in the peak in Queensland drivers who fail to renew their driver's licence at age 75 when a medical certificate is required; this peak is considerably higher than for those who are

required to surrender their licence for medical reasons (Whelan et al. 2006).

### Driving and dementia

It is estimated that around 180,900 older Australians had some form of dementia in 2006 (see Topic 25: *Dementia*). In view of its progressive nature, people with dementia must eventually stop driving. Nevertheless, a diagnosis of dementia may be based on functions which are not related to driving skills, and people with mild dementia may still be able to drive safely (Hunt 2003; see also recommendations of Australian Society for Geriatric Medicine in Hecker & Snellgrove 2002). Freund & Szinovacz (2002) found that 37% of those with low cognitive functioning were still driving, although mostly short distances.

However, it is also recognised that people with dementia often do not have the ability to monitor their own driving capabilities, to adjust their driving to suit their capacity, or to stop driving when needed. Cessation of driving was more likely when there were other available drivers in the household, and when dementia was associated with hallucinations or apathy; symptoms which included agitation and aggression were associated with lower likelihood of driving cessation (Herrmann et al. 2006).

### Road safety issues

Road safety is an important consideration in the continued licensing of older drivers. In 2006, 227 older Australians died in traffic accidents, 14% of all road deaths (Table 5.3). Older people are overrepresented as a proportion of deaths for both pedestrian and motor vehicle fatalities. The Australian Transport Safety Bureau attributes the high rate of older pedestrian fatalities to

**Table 5.3: Road fatalities by road user type, Australia 2006**

	65-74	75-84	85+	All 65+	All	65-74	75-84	85+	All 65+	All
	Number					Per cent				
Driver <sup>(a)</sup>	54	46	18	118	761	7.1	6.0	2.4	15.5	100.0
Passenger	12	10	7	29	335	3.6	3.0	2.1	8.7	100.0
Pedestrian <sup>(b)</sup>	25	26	19	70	227	11.0	11.5	8.4	30.8	100.0
Motor cyclist	2	2	0	4	238	0.8	0.8	0.0	1.7	100.0
Cyclist	4	2	0	6	40	10.0	5.0	0.0	15.0	100.0
<b>Total fatalities</b>	<b>97</b>	<b>86</b>	<b>44</b>	<b>227</b>	<b>1,601</b>	<b>6.1</b>	<b>5.4</b>	<b>2.7</b>	<b>14.2</b>	<b>100.0</b>
<b>Total population</b>	<b>1.4m</b>	<b>0.9m</b>	<b>0.3m</b>	<b>2.6m</b>	<b>20.6m</b>	<b>6.9</b>	<b>4.7</b>	<b>1.6</b>	<b>13.3</b>	<b>100.0</b>

(a) Excludes driver deaths which were the result of a medical condition, for example a heart attack which caused the accident.

(b) Includes deaths of drivers of motorised scooters.

Source: AIHW using data obtained from the Australian Transport Safety Bureau (see ATSB 2007).



'greater reliance of older people on pedestrian travel, the perceptual, cognitive and physical deteriorations associated with ageing, and the older person's greater frailty and risk of death if hit by a motor vehicle' (ATSB 2002). There is evidence that older people are either fully or partly responsible for the collision in the majority of pedestrian deaths; most of the fatal pedestrian accidents occurred when the older pedestrian was crossing a road in an urban area (ATSB 2002).

Age is related to overall crash risk and deaths of older drivers are particularly high when related to distance travelled. This partly reflects the relatively higher levels of short-distance urban driving by older people, which has a higher crash risk than driving longer distances on country highways (Victoria Parliament Road Safety Committee 2003). The frailty of some older people increases the likelihood of severe injury or death as a result of a road accident, and accounted for 60–90% of excess death rates.

Overseas studies which have investigated driving safety and risk to others in relation to older drivers found that, after being matched for yearly driving distance, most drivers aged 75 years and over were safer than drivers of other ages (Whelan et al. 2006; Meuleners et al. 2006; see also OECD 2001). Nor do older drivers pose a greatly increased risk to other road users (Dulisse 1997; Langford et al. 2006).

## Transport alternatives

Access to alternative forms of transport is an issue for older people with limited or no access to a car or public transport, regardless of whether they live in the community or in cared accommodation. Walking is an option for older people who are fit. Other options include formal service provision from aged care services or special transport programs, assistance from family and friends, motorised scooters, taxis, and finding other ways to do things.

The NSW Council of Social Services has identified transport as an area of relatively high unmet need by aged care residents (Edmonds 2003; NCOSS 2003). A 2001 pilot project providing transport to aged care residents found the actual use of transport services greater than the expected demand (Edmonds 2003). People living in residential aged care can only access transport services through the Home and Community Care (HACC) Program with extreme difficulty when no other options are available; access is on a full cost recovery basis (generally at the resident's expense) and priority is given to people living in the community, which may mean that there is not sufficient community transport available to meet resident needs (Edmonds 2003).

The ABS 2003 Survey of Disability, Ageing and Carers found that 22% of older Australians living in the community needed help from a person with private transport, increasing from 12% for those aged 65–74 years to 27% for those aged 75–84 years and 41% for those aged 85 years and over. Of those who needed assistance with transport, this need was only partly met for 10% and not met at all for another 10% (see Topic 29: *Care needs and sources of care*; Table A29.1); 10% reported a need for more formal assistance and 6% for more help from family and friends (AIHW 2007c).

Transport assistance is available for community-dwelling older Australians through a number of community aged care programs. Clients may receive ad hoc service as needed to attend medical appointments, group outings organised by community transport services, and/or regular transport to and from centre-based activities. In 2004–05, around 17% of HACC clients received help with transport—an overall average of 0.7 of a trip per week was provided for each HACC client; for those who received services in all four quarters of the year this rose to 1.6 per week and did not differ with age (Table A5.3). Data collected in 2002 indicated that 36% of Community Aged Care Packages (CACP) recipients and 9% of Extended Aged Care at Home (EACH) recipients who were aged 65 years and over received help with transport (Table A5.3). An average of around 3 trips per week was provided for each CACP and EACH recipient. (This profile of transport assistance may have changed during the five years since this census).

Not all formal alternative service provision is classified as transport services; the provision of services to assist with activities such as shopping, banking or social activities typically includes the provision of transport. The data reported above therefore do not capture the full extent of transport assistance.

Motorised mobility scooters are becoming an increasingly popular form of alternative local transport, allowing older people more control and flexibility without the restrictions and access problems imposed by public transport or reliance on friends or formal transport services. Scooters can travel at up to 10 km per hour with a range of between 15 and 40 kilometres (depending on the model) before needing to be recharged. Finally, there are lifestyle options which can reduce a person's need for transport. For example, information and communication technologies facilitate online transactions such as paying bills, making purchases and banking (see Topic 7: *Use of technology*). However, managing affairs remotely, or having someone else do tasks for them does not assist with a person's need for social participation.

## WORKFORCE PARTICIPATION

6

Although there is no statutory retirement age in Australia, labour force participation drops sharply between the age groups of 45–54 and 55–59; the participation rate of males is currently highest in the age groups 25–34 years and 35–44 years, and of females, in the 45–54 years age group. In October 2006, only 13% of men and 4.4% of women aged 65 and over were employed or looking for work.

There is a strong public policy emphasis on encouraging older workers to remain in paid employment for as long as possible. Australia has introduced age discrimination legislation at the federal, state and territory levels; is gradually increasing the age at which women can access the Age Pension; has effected ongoing increases to the minimum age for accessing superannuation benefits; and has introduced incentives for workers who stay on in employment beyond the Age Pension age (e.g. the Pension Bonus Scheme) (see Topic 13: *Age Pension and superannuation*).

### Participation rates

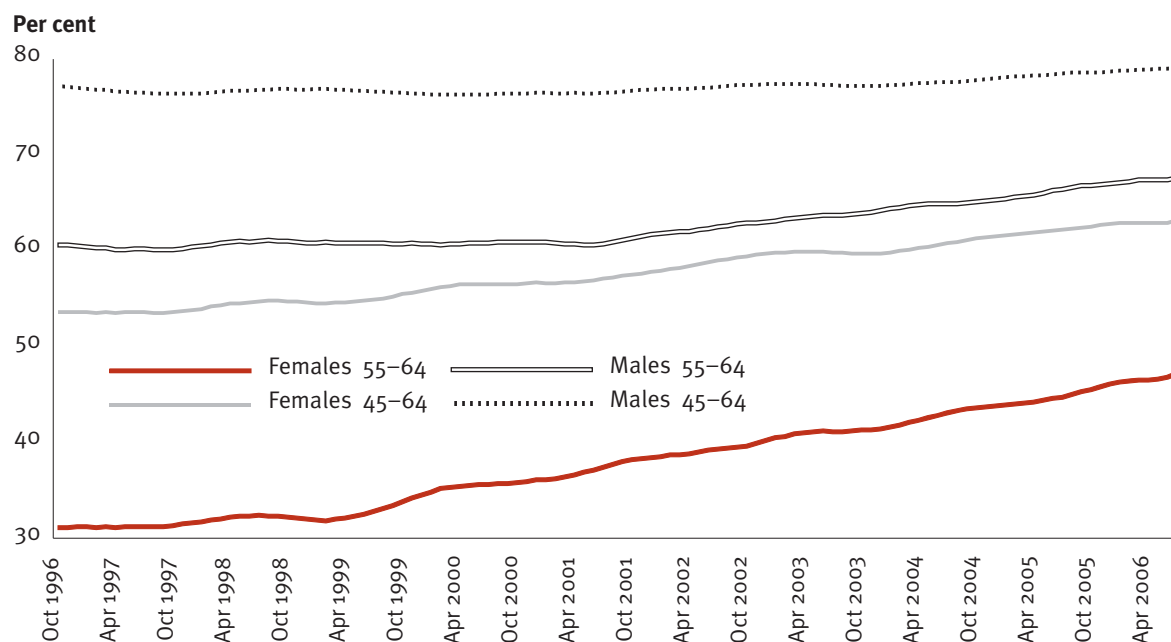
Over the last decade the labour force participation rate for people aged 65 and over has risen (up by 2.7 percentage points to 8.2% in October 2006), but remains considerably lower than the participation rate for people aged 45–64. This is hardly surprising,

however, given that many people choose to retire upon reaching qualifying age for the Age Pension. That said, greater numbers of older people are choosing to remain in the labour market despite continuing public perceptions that the opposite is the case.

Over the same period however, there has been a significant increase in the labour force participation of mature-age people (i.e. those aged 45–64 years). Between October 1996 and October 2006, the labour force participation rate for this group increased by 6.2 percentage points to 71.6%. The increase in overall mature-age participation has been due largely to the substantial rise in the participation rate for mature-age women, from 53% in October 1996 to 64% in October 2006. This compares with a much smaller increase in the participation rate for mature age-men over the same period, up by 1.7 percentage points to 79%. Most of these increases occurred during the latter half of the reporting period (ABS 2006n).

As shown in Figure 6.1, the older portion of the mature age cohort (people aged 55–64) recorded a larger rise in labour force participation over the decade than all people aged 45–64. This is particularly evident for women aged 55–64 years, who recorded an increase in their participation rate of 17.4 percentage points over the period, to 48% in October 2006; the comparable increase was 6.9 percentage points for men, to 68%.

**Figure 6.1: Participation rates for persons aged 45–64 and 55–64, by sex, October 1996 to October 2006**



Source: 12-month averages of data from ABS 2006n.

Many factors have contributed to the increased labour force participation of mature-age people. The increased availability of casual and part-time positions may have helped attract and retain women in the workforce. Changing employment practices may also have contributed, particularly as employers become increasingly aware of the impact of population ageing on the structure of the working-age population (15–64 year old). In October 2006, 47% of the working-age population was aged 45 years and over, up from 42% in October 1996. However, it is important to recognise the possibility of a cohort effect—the increase in mature-age participation may be influenced by people who are moving into the 45–54 and 55–64 year age groups with higher participation rates than those who are moving out of the cohort; this cohort effect is likely to be more pronounced among women. Together with a strengthened employment market, this has driven the proportion of all persons aged 45–64 years in employment from 61.5% in October 1996 to 69.5% in October 2006 (ABS 2006n).

Unemployment rates for the mature-age population are not high by comparison with other age groups. The unemployment rate for people aged 45 years and over in October 2006 was 2.8%. However, mature-age workers who become unemployed have a relatively low probability of re-employment, and hence spend long periods of time unemployed (Borland 2005). Additionally, many mature-age job seekers do not appear in unemployment statistics—prolonged experiences of unsuccessfully competing for jobs may lead to a significant ‘discouraged worker effect’, where individuals become resigned to failure and withdraw from the very process of seeking jobs and hence no longer appear as ‘unemployed’ in labour force statistics (Bittman et al. 2001).

## Part-time work

When examining employment trends for mature-age persons, it is also important to note the increasing trend towards part-time employment for this cohort. In October 2006, 28% of mature-age employment was part time, compared with 24% in October 1996 (derived from ABS 2006n). This trend is evident for all age groups (Table 6.1). A larger proportion of employed women aged 45 years and over was working part time (45%) than are men (15%) (derived from ABS 2006n). The prevalence of part-time employment also increases with age, from 24% of total employment for persons aged 45–54 years to 52% for persons aged 65 years and over.

Part-time employment is useful to older workers who may wish to ease the transition from full-time work to total retirement, or who want to maintain a higher level of income into their older years. It also has benefits for businesses. Valuable corporate knowledge can be passed on from retiring workers to others in the organisation, and skill shortages may be met through the retention of older workers who may not want to work full time.

## Industry and occupation profile

As shown in Figure 6.2, mature-age employment varies considerably by industry. For example, 56% of workers in agriculture, forestry and fishing are mature age, as are 50% in education and 45% in health and community services. On the other hand, industries such as retail trade, accommodation, cafes and restaurants, and cultural and recreational services continue to be dominated by younger workers.

**Table 6.1: Labour force status of persons aged 45 and over, October 1996 and October 2006 (per cent)**

	October 1996				October 2006			
	45–54	55–59	60–64	65+	45–54	55–59	60–64	65+
Employed	73.7	54.4	29.7	5.5	79.9	66.7	43.7	8.1
Full-time	58.2	40.3	21.1	2.8	60.3	48.5	27.9	3.9
Part-time	15.6	14.1	8.6	2.7	19.6	18.2	15.8	4.3
Unemployed	4.6	4.2	1.7	–	2.5	1.8	1.4	0.1
Looking for full-time work	4.1	3.7	1.3	–	2.1	1.3	1.2	–
Looking for part-time work	0.5	0.5	0.3	–	0.4	0.5	0.3	–
<i>Labour force</i>	78.3	58.6	31.3	5.5	82.4	68.5	45.1	8.2
<i>Not in the labour force</i>	21.7	41.4	68.7	94.5	17.6	31.5	54.9	91.8
<b>Total number</b>	<b>2,331,400</b>	<b>836,000</b>	<b>714,800</b>	<b>2,215,800</b>	<b>2,846,900</b>	<b>1,280,100</b>	<b>1,013,600</b>	<b>2,757,500</b>

– Nil or rounded to zero.

Source: Reproduced from ABS 2006n:Table1.

Mature-age persons are quite evenly distributed between all of the major occupational groups, with the exception of the larger proportion in the higher skilled occupation category of managers and administrators (where mature-age persons constituted 52% of total employment) and the smaller proportions in the lower skilled occupation of elementary clerical, sales and service workers (26% of total employment, ABS 2006).

### Employer attitudes and productivity

Among the barriers to employment faced by mature-age and older workers are employer perceptions that their productivity declines with age. The nature of the relationship between age and productivity is a contentious issue. Not only is there a general lack of data as many employers do not track or report measures of productivity, but empirical estimates of the relationship are difficult to make and at best show only a weak relationship. The reliability or suitability of productivity measures can also be questioned (Australian Psychological Society 2004; Bacon 1999).

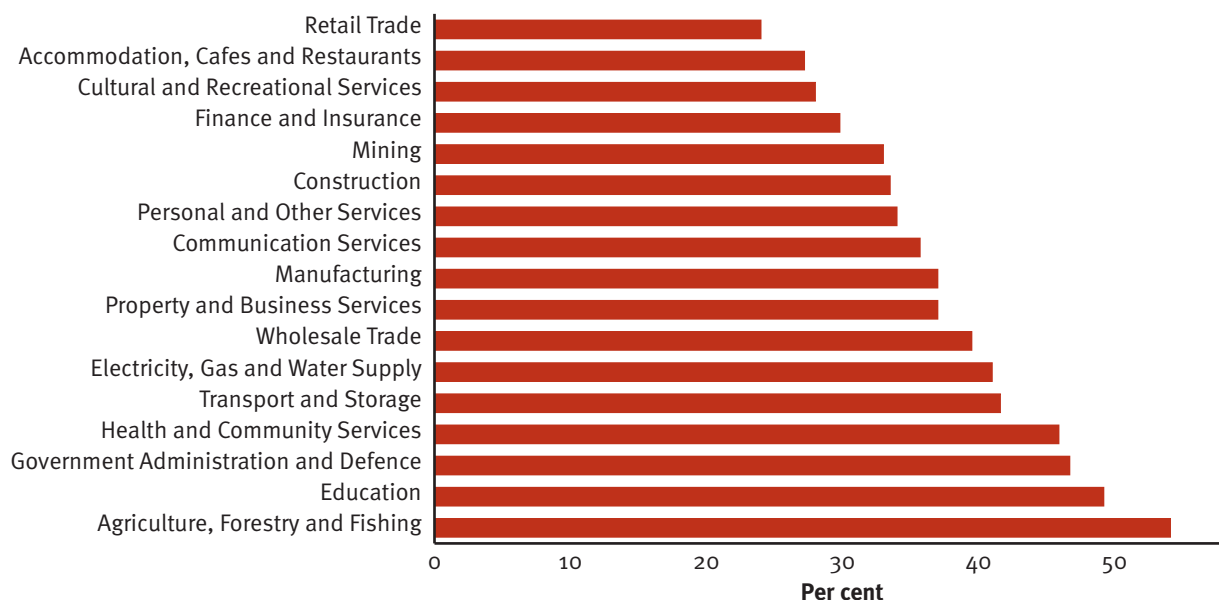
The available evidence suggests that there is no significant decline in productivity with age (Warr 1994; Lowther 2003), although mature-age workers may be productive in different ways to younger workers (Commonwealth of Australia 2003). Although differences between jobs and between dimensions of performance exist, variations within an age group tend to exceed the average difference between age groups (Warr 1994; Shea 1991; Rix 1990). The Australian Psychological

Society (2004) also notes that the tremendous diversity in jobs, the variety of tasks to be done in those jobs, and the various skills of individual workers across all age groups make it extremely difficult to uniformly measure productivity across workers and industries. Additionally, there are huge variations in the skills, work experience and productivity levels within the older workers group.

Furthermore, any decrease in productivity may be compensated for by an increase in work-related and general experience (Barnes & Kennard 2002; Access Economics 2001), corporate knowledge and more mature judgment (Australian Psychological Society 2004; WA Department of Education and Training 2003). Research also suggests that quality of work improves, turnover rates fall and worker loyalty, work ethic and reliability increase with age (Australian Psychological Society 2004; Lowther 2003; WA Department of Education and Training 2003; Access Economics 2001).

Several studies report lower levels of absenteeism (AIHW 2005d; Lowther 2003; Access Economics 2001; WA Department of Education and Training 2003) and accidents (Warr 1994) among mature-age workers. Other studies suggest that although unavoidable absence because of illness or injury is greater at older ages, avoidable absence from work declines with age (Bennington & Tharenou 1996; Warr 1994). However, longer absences because of ill health experienced by older workers can be less disruptive to an organisation than the more frequent avoidable absences of younger workers (DEWR 2003).

**Figure 6.2: Proportion of mature-age workers (age 45 and over), by industry**



Source: ABS 2006o.

## RETIRING FROM PAID WORK

Retiring from paid work is a major life transition. Retirement is a significant event in the life of the individual, but it has assumed even greater importance at the societal level because of the labour market implications of Australia's ageing population—the Department of Workplace Relations (DEWR 2005) predicts that Australia faces a potential shortfall of 195,000 workers over the 5 year period from 2004–05 to 2009–10. Raising the level of labour market participation, especially encouraging continued workforce participation among older people, has assumed greater policy importance. Better understanding of the retirement transition, including when older people retire and their reasons for doing so, will therefore guide future developments in policy and workplace practices.

### What does retirement mean today?

During the 20th century, 'retirement' generally meant a sudden and complete withdrawal from paid employment (which was typically full time). Although retirement may still encompass this same process for some workers today, others now phase their retirement, reducing hours of employment gradually or withdrawing from and re-entering the workforce intermittently over a period

leading up to full retirement. The idea of 'retirement' has come to have different connotations for different people. Some workers, having fully retired, reverse the process and re-enter with the workforce. The notion of a 'transition to retirement' has become widely accepted (Borland 2005) along with the concept of partial retirement (Warren 2006). A retired person is still seen as an individual who is not engaged in any paid work, but the notion also now seems to encompass situations where an individual is over age 65 and engaged in a small number of hours per week of paid work (Borland 2005).

### Retirement status

Data from the 2004–05 ABS Multi-Purpose Household Survey (MPHS) show that of the 7.4 million people aged 45 and over, 3.7 million (51%) were in the labour force, and 3.0 million (41%) had retired from the labour force (i.e. they had previously worked for 2 weeks or more and had retired from work or looking for work, and did not intend to look for, or take up, work at any time in the future) (Table 7.1). The remaining 620,100 (8.4%) were neither in the labour force nor retired (consisting of people who intended to work in the future, whose retirement status was not determined or had never worked 2 weeks or more). A greater proportion of men

**Table 7.1: Labour force status, by age and sex, 2004–05 (per cent)**

	In the labour force	Retired	Neither in the labour force nor retired <sup>(a)</sup>	Total	Number
<b>Females</b>					
45–49	81.6	7.7	10.6	100.0	726,000
50–54	72.0	17.7	10.3	100.0	665,100
55–59	56.7	31.4	12.0	100.0	610,400
60–64	35.6	51.2	13.2	100.0	458,700
65–69	12.7	77.4	9.8	100.0	375,500
70+	2.6	83.4	14.0	100.0	955,600
<i>Total females</i>	43.6	44.5	11.9	100.0	3,791,400
<b>Males</b>					
45–49	91.3	3.4	5.3	100.0	710,000
50–54	87.1	8.0	4.9	100.0	651,900
55–59	78.0	17.4	4.6	100.0	612,500
60–64	56.5	37.2	6.3	100.0	465,600
65–69	23.7	71.6	4.7	100.0	374,300
70+	6.1	90.6	3.3	100.0	759,300
<i>Total males</i>	58.5	36.7	4.7	100.0	3,573,600
<b>Persons</b>	<b>50.8</b>	<b>40.7</b>	<b>8.4</b>	<b>100.0</b>	<b>7,365,000</b>

(a) Includes people who have never worked 2 weeks or more and 27,900 persons (11,100 males and 16,800 females) whose retirement status was not determined.

Source: Reproduced from ABS 2006v:Table 1.



were in the labour force (59%) than women (44%). The proportion who were retired increased strongly with age; whereas only 7.7% of women and 3.4% of men aged 45–49 years had retired, the proportions increased to 83% of women and 91% of men among those aged 70 years and over.

## Partial retirement

Partial retirement is a fluid concept that may involve working fewer hours, in a less demanding job, in a different job, on a casual or occasional basis, or from home. In many cases, this will involve part-time and/or non-traditional forms of employment (e.g. casual, fixed-term or labour hire employees and self-employed contractors). Analysis of Household, Income and Labour Dynamics in Australia data by (Warren 2006) showed that about 50% of women and 40% of men aged 45 years and over considered themselves to be 'completely retired' and 8% of men and women in this age group said they were partly retired (Table 7.2). For both men and women, the proportion who considered themselves retired increased strongly with age; increasing from 14% of women and 7% of men aged 45–54 years to 85% of women and 88% of men aged 65 years and over.

The most common reasons for both men and women considering themselves partly retired were that they

worked fewer hours than before or worked only casually or occasionally (Warren 2006). A recent report by the Productivity Commission (2006), found that almost three-quarters of those who describe themselves as partially retired work as 'non-traditional' employees (e.g. self-employed contractors, or fixed-term or labour hire employees).

The concept of 'bridging jobs' has been used to characterise the various types of work engagement where the individual sees the job as being part of a transition to retirement. Around 20% of mature-age workers report that their current job is in this category (Borland & Warren 2005). The proportion of workers in transition jobs increases from 10% to 15% among those aged 45–54 years to over 50% of those aged 65 years and over, and is generally higher for women than for men.

This is still a relatively recent phenomenon. Data from the 2004–05 MPHS show that of the 1.8 million retirees aged 45 and over whose last job was less than 20 years ago, the majority (72% or 1.3 million people) had retired from a full-time job rather than part-time or unpaid/voluntary jobs and had worked 35 hours or more a week (ABS 2006v:Tables 3.1 & 3.2).

**Table 7.2: Self-reported retirement status, by age and sex, 2003 (per cent)**

	Completely retired	Partly retired	Not retired at all	Not relevant— have never been in paid work	Total
<b>Females</b>					
45–54	14.1	7.7	74.2	4.1	100.0
55–59	38.6	12.9	45.1	#3.5	100.0
60–64	67.0	12.8	13.8	6.4	100.0
65+	85.4	3.5	1.9	9.2	100.0
<i>Total females</i>	48.9	7.6	37.4	6.0	100.0
<b>Males</b>					
45–54	7.2	3.7	88.8	#0.4	100.0
55–59	24.4	10.8	64.7	#0.0	100.0
60–64	50.1	17.7	32.1	#0.2	100.0
65+	87.8	6.7	5.2	#0.3	100.0
<i>Total males</i>	40.5	7.6	51.6	#0.3	100.0

# Cell size less than 20.

Note: Population weighted results, sample n=5,754.

Source: Reproduced from Warren 2006.

## Age at retirement

There were 3.0 million retired people aged 45 and over in 2004–05 (Table 7.1). Around 33% of men had retired at ages 60–64 and 23% had retired at ages 55–59 (Table 7.3). Women tended to retire earlier than men—around 33% retired aged less than 45, followed by 19% who retired aged 55–59.

Of the 3.7 million people aged 45 and over in the labour force in 2004–05, the vast majority (90%) indicated that they *intended* to retire in the future. The remaining 384,400 people indicated that they never intend to retire from the labour force. Among those able to indicate an intended retirement age (53%), Table 7.4 shows that the majority intended to retire aged 60–69 (70%). Should these intentions be realised, this would

suggest that a larger proportion of the current labour force will delay their age of retirement beyond that of currently retired people.

Of those who intended to retire, almost half (47%) did not know at what age they would retire. Estimating the age at which one will leave the labour market may be easier for workers in jobs with well-defined pension benefits and standard retirement ages (Cobb-Clark & Stillman 2006). Individuals with long-term savings and spending goals are significantly more likely to have standard retirement plans than workers with more short-term financial outlooks. Factors associated with higher levels of uncertainty, hence increased likelihood and expectation of delayed retirement, include foreign-born status and being single. Living in a

**Table 7.3: Age at retirement, retired persons aged 45 and over, by sex, 2004–05**

	Males		Females		Persons	
	Number	Per cent	Number	Per cent	Number	Per cent
< 45	101,900	7.8	551,700	32.8	653,700	21.9
45–49	73,600	5.7	223,700	13.3	297,300	10.0
50–54	157,400	12.1	266,300	15.8	423,700	14.2
55–59	294,100	22.6	318,300	18.9	612,400	20.5
60–64	423,300	32.5	222,300	13.2	645,600	21.6
65–69	202,000	15.5	70,100	4.2	272,200	9.1
70+	49,800	3.8	31,100	1.8	80,900	2.7
<b>Total</b>	<b>1,302,200</b>	<b>100.0</b>	<b>1,683,500</b>	<b>100.0</b>	<b>2,985,800</b>	<b>100.0</b>
<i>Not determined</i>	10,200	..	4,100	..	14,300	..
Average age <sup>(a)</sup>	58.1	..	47.4	..	52.1	..

(a) Excludes persons whose retirement age was not determined.

Source: ABS 2006v.

**Table 7.4: Persons aged 45 and over who intend to retire from the labour force, age they intend to retire, by sex, 2004–05**

	Males		Females		Persons	
	Number	Per cent	Number	Per cent	Number	Per cent
45–54	*11,400	*1.1	29,800	4.1	41,300	2.3
55–59	142,800	13.8	197,600	27.1	340,500	19.3
60–64	306,200	29.5	237,900	32.6	544,000	30.8
65–69	471,800	45.5	218,700	30.0	690,600	39.1
70+	103,900	10.0	45,200	6.2	149,200	8.4
<b>Total</b>	<b>1,036,200</b>	<b>100.0</b>	<b>729,300</b>	<b>100.0</b>	<b>1,765,500</b>	<b>100.0</b>
<i>Did not know</i>	801,800	..	789,000	..	1,590,700	..
Average age <sup>(a)</sup>	63.2	..	61.1	..	62.3	..

\* Estimate has a relative standard error of 25% to 50% and should be used with caution.

(a) Excludes persons who did not know what age they intend to retire.

Source: ABS 2006v.



couple household, being in good health, and expecting a relatively high retirement income all seem to be associated with expectations of early retirement among middle-aged Australian workers (Cobb-Clark & Stillman 2006).

Around 60% of working middle-aged Australians expect to retire later than they want (Cobb-Clark & Stillman 2006), suggesting that, for a majority, early retirement is a more attractive option, even if not always achievable, compared with continued employment. There are also indications that a partner's income, and perhaps a partner's own retirement plan, has been a major consideration in the timing of retirement for many retired women.

## Reasons for retirement

A range of factors influence why and when people retire or start a transition to full retirement, including family and lifestyle considerations, health status and disability, access to superannuation benefits and pension, job satisfaction, and redundancy.

Data from the 2004–05 MPHS show that for those retired people whose last job was less than 20 years ago, the main reason for stopping work altogether was reaching retirement age or being eligible to receive superannuation or the pension (34%) (ABS 2006v). This appeared to be more important than reasons of sickness, injury or ill health (26%) or being retrenched, dismissed or not having any work available (11%).

The most common factor influencing the decision about when to retire among people still in the labour force was health or physical abilities (40%). This was ranked higher than factors such as financial security (36%) and reaching the eligible age for an Age or Service Pension (15%). In addition, Warren (2006) found that other factors such as the need to care for a spouse or other family member and the ability to access superannuation funds were considered 'very important' by more people than reaching the eligibility age for an Age or Service Pension.

Almost two-thirds (60%) of fully retired and a similar proportion of partly retired women (62%) retired at a time of their choosing. These proportions were higher than the comparable proportions for men (43% and 54% respectively) (Warren 2006). The experience of external pressure in relation to retirement was higher for younger age groups—for example, 45% of fully retired women aged 45–54 years but only 23% aged 65 and over experienced such external pressure. The same pattern was evident for men (78% of those aged

45–54 and 38% of those aged 65 and over). For men and women, the pressure to retire most commonly came from their doctor or employer; however, women experienced more pressure from their spouse or partner than men did. Results from the Healthy Retirement Project suggest that control of the decision to retire is a more important factor in affecting wellbeing in retirement than whether the pathway to retirement is gradual or abrupt (Wells et al. 2006).

Some mature-age and older workers may be motivated to postpone retirement, and indeed about 10% indicate they do not intend to retire at all. Furthermore, some who had previously retired from the labour force may rejoin the labour force. There are signs that some people may have retired prematurely. For example, 209,900 people aged 45 years and over who had previously retired from the labour force were either in the labour force or planning to look for employment in the future at the time of the 2004–05 MPHS. The most common reasons cited for this were financial need (45%) and boredom (36%).

Older people make valuable contributions to their families and communities through unpaid household, volunteer and community work (De Vaus et al. 2003) as well as providing care to grandchildren, spouses and relatives with disability. Retired older people remained engaged in productive activities into later life, making a partial substitution of one form of productive engagement for another.

### Unpaid assistance

The 2006 ABS General Social Survey (GSS) collected information about a number of ways in which Australians provide unpaid assistance to people living outside their household. These forms of unpaid assistance include activities such as domestic support, running errands and providing child care (see Table A8.2) which represent an important component of social capital formation and maintenance (see ABS 2004f for a discussion of its social capital framework). In 2006, 430,600 older males and 535,200 older females provided unpaid assistance to people living outside their household (usually a relative or friend) in the previous 4 weeks (Table A8.1). Emotional support was the most common type of unpaid assistance provided by older females, and older males most often provided transport or ran errands, although this varied across age groups—for example, among those aged

between 65–74 years helping with child care was the most common type of assistance provided by both males and females (Table A8.2, see also Topic 9: *Providing care*). Teaching, coaching or giving practical advice was the least common type of unpaid assistance provided by older people.

After reaching a peak at age 55–64 years, the proportion of older people providing assistance decreased with age, particularly for women—for example, 43% of men and 53% of women aged 65–74 years provided assistance, compared with 21% of men and 14% of women aged 85 years and over (Figure 8.1).

### Voluntary work

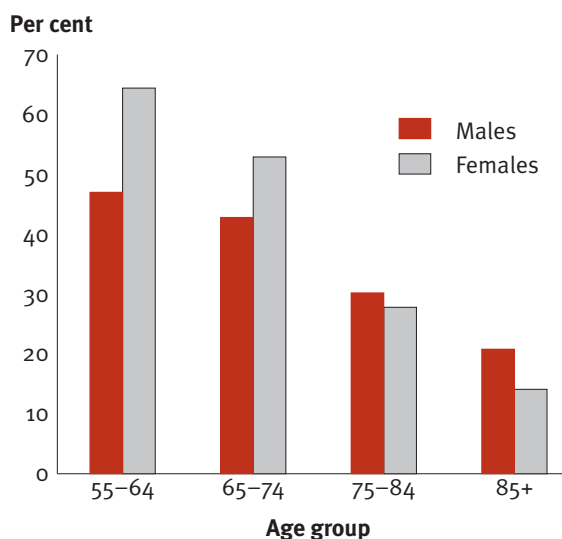
Older people may also provide unpaid help, in the form of time, service or skills, through an organisation or group. According to the voluntary work component of the 2006 GSS, 27% of older Australians (690,400 people) participated in organised voluntary work contributing 160 million hours to the community (Table 8.1).

Overall, rates of volunteering were similar among older males and females (27% and 28%, respectively). However, volunteer rates decreased sharply with age for older females, but remained relatively constant across the older age groups for males. Not surprisingly, the length of time since first volunteering increased with age (ABS 2007m:Table 9). However, older people (particularly males) spent more time doing voluntary work than their younger counterparts (ABS 2007m:Table 1). This pattern was evident using both median and average hours measures (ABS 2007m:Table 15).

The most common type of organisation for which people of all ages volunteered was in the area of sport and physical recreation (ABS 2007m:Table 23). However, older people were more likely to volunteer for community or welfare organisations (33%) than sport and physical recreation organisations (13%), although older male volunteers (19%) were more likely to be involved in sport or recreational organisations than females (8.5%).

The activities most frequently undertaken by older volunteers were fundraising and sales, preparing and serving food, and administration, clerical, recruitment and information management (ABS 2007m:Table 24). Older females were much more likely than males to be preparing and serving food (40% compared with 13% of involvements) or involved in fundraising and sales (51% compared with 38%), whereas older males were more likely to be involved in such activities as repairs, maintenance and gardening (30% compared with

**Figure 8.1: Proportion providing unpaid assistance to persons living outside the household in the last 4 weeks, by age and sex, 2006**



Source: Table A8.1.

7.1%), and coaching and refereeing (11% compared with 4.3%). Males and females had similar rates of participation in personal care and assistance (9.1% and 9.6%, respectively).

The motivation of older volunteers included a desire to help others or the community (62%) and personal satisfaction (50%) (ABS 2007m:Table 12). Compared with younger age groups, older people were more likely to engage in voluntary work in order to do something worthwhile, to have social contact and to be active, and personal or family involvement was less common as a motivation. Religious beliefs were a common motive for volunteering among those aged 85 years and over (35% compared with 15% overall).

As for the general population, volunteer rates were higher among older Australians who were involved in the community in other ways—for example, those who attended community events, were actively involved in religious or spiritual groups or organisations, donated money to an organisation, or believed that most people can be trusted were more likely to be volunteers (ABS 2007m:Table 8). Although the overall proportion of volunteering was higher for those who were employed, employed people gave on average fewer hours a week to voluntary work compared with unemployed people or those not in the labour force (ABS 2007m:Tables 3–6).

People who volunteer through organisations were also more likely to provide informal support in the community in terms of unpaid care and assistance, and this was true for all age groups. For example, older volunteers

were more likely than non-volunteers to provide informal care to someone because of old age, long-term illness or disability (30% compared with 17%) and were more likely to provide unpaid assistance to people living outside their household (56% compared with 32%) (ABS 2007m:Table 35). In particular, volunteers were more likely than non-volunteers to provide unpaid assistance to less familiar 'other people' who were not their family, friends or neighbours.

## Civic activity

In 2006, 902,400 older persons were engaged in civic activity (Table 8.2). Boycotting or deliberately buying products for political, ethical or environmental reasons and signing a petition were the most common types of civic activity, and attending a protest march, meeting or rally and writing letters to the editor of a newspaper were the least common types for older people (AIHW analysis of 2006 ABS GSS CURF).

A substantial number of older people were actively involved in governance and citizenship groups (335,600 persons) and community organisations (640,900 persons). Older people involved in governance and citizenship groups were most often part of a body corporate or tenants' association and least often part of human and civil rights groups or trade unions or professional or technical associations. Service clubs and welfare organisations were the most common community organisations in which older people were

**Table 8.1: Volunteering, by age and sex, 2006**

	Males				Females				Persons			
	55-64	65-74	75-84	85+	55-64	65-74	75-84	85+	55-64	65-74	75-84	85+
Volunteers ('000)	304.8	203.7	89.2	*20.1	421.6	250.4	116.0	*10.9	726.4	454.1	205.2	31.1
Volunteer rate (%)	27.2	29.9	21.8	*25.7	37.6	35.1	22.9	*7.8	32.4	32.6	22.4	14.2
Total annual hours (million)	63.7	53.6	*36.2	*1.6	68.5	49.5	17.8	**1.3	132.2	103.2	54.0	*2.9
Average annual hours	209.1	263.2	405.8	*76.9	162.5	197.9	153.8	**122.1	182.0	227.2	263.3	*92.8
Median annual hours	66	120	*121	**50	84	81	*90	**47	80	104	104	**28
Median <sup>(a)</sup> weekly hours	1.3	2.3	*2.3	**1.0	1.6	1.6	*1.7	**0.9	1.5	2.0	2.0	**0.5
<b>All persons ('000)</b>	<b>1,119.5</b>	<b>681.1</b>	<b>409.9</b>	<b>78.5</b>	<b>1,119.8</b>	<b>713.8</b>	<b>506.8</b>	<b>139.8</b>	<b>2,239.3</b>	<b>1,394.8</b>	<b>916.7</b>	<b>218.4</b>

\* Estimate has a relative standard error of 25% to 50% and should be used with caution.

\*\* Estimate has a relative standard error greater than 50% and is considered too unreliable for general use.

(a) Median annual hours divided by weeks in the year (52).

Source: Reproduced from ABS 2007m:Table 1.

actively involved, and emergency services were the least common (ABS 2007d:Table 29).

Engagement in civic activity was similar for older men and women across the age groups—overall, 37% of older men and 35% of older women were engaged in civic activity in the last 12 months (Table 8.2).

The proportion of older persons involved in governance and citizenship or community groups or engaged in civic activity decreased with age—for example, 41% of men and 43% of women aged 65–74 years were engaged in civic activity, compared with 18% of both sexes aged 85 years and over. This decrease was also particularly evident for men involved in governance and citizenship groups (19% of men aged 65–74 years compared with 2% aged 85 years and over) and women involved in community organisations (31% of women aged 65–74 years compared with 15% aged 85 years and over).

### Organised sport and physical activity

In addition to attending and participating in sport and physical activity (Topic 10: *Social participation and leisure*), older people may also be involved in organised sport and physical activity as coaches, umpires, committee members, scorers, medical support or in other roles. In 2004, 4.4% of those aged 65 years and over had non-playing involvement—the lowest rate of any age group. However, older people were also less likely to be paid for their involvement—of the 105,600 older persons with non-playing involvement, 98,400 (93%) were not paid (ABS 2005f:Table 4).

### Donations

The voluntary work component of the 2006 ABS GSS collected information about personal donations of money to organisations in the past 12 months, for reasons such as concern for people's basic welfare needs or religious beliefs.

In 2006, personal donations of money to organisations were made by almost 2 million older people, 78% of all people aged 65 years and over (Table 8.3). Proportionally more females than males gave donations in each age group, although the proportions were similar for all older females (79%) and males (76%). For both men and women, the proportion giving donations increased with age until age group 45–54 years, and then decreased in the older age groups.

Volunteer rates were higher among older people who donated money than those who did not (30% compared with 17%) (ABS 2007m:Table 8).

Analysis of Australian Tax Office data about tax-deductible donations in 1999–2000 by Steinberg et al. (2005) found that 50% of Australian taxpayers aged 65 and over claimed tax-deductible donations compared with 36% of taxpayers overall. Older taxpayers donated 22% of the \$1.3 billion donated in the 1999–2000 tax year, even though they made up only 8.5% of the taxpaying population and earned 7% of the total income.

**Table 8.2: Community and civic participation in the last 12 months, by age and sex, 2006**

	Active involvement in governance and citizenship groups		Active involvement in community organisations		Engagement in civic activity		Total persons
	Number	Per cent	Number	Per cent	Number	Per cent	
<b>Males</b>							
55-64	285,100	25.4	272,800	24.3	535,100	47.7	1,121,600
65-74	126,300	18.6	180,000	26.4	278,800	41.0	680,700
75-84	61,900	15.2	82,700	20.3	134,000	32.9	406,700
85+	**1,800	**2.3	*16,400	*20.8	*13,900	*17.7	78,500
<i>Total males 65+</i>	<i>190,000</i>	<i>16.3</i>	<i>279,100</i>	<i>23.9</i>	<i>426,700</i>	<i>36.6</i>	<i>1,166,000</i>
<b>Females</b>							
55-64	223,900	19.9	360,400	32.0	606,100	53.9	1,125,100
65-74	88,700	12.5	219,000	30.8	304,900	42.9	710,100
75-84	48,700	9.6	121,300	24.0	145,900	28.9	505,100
85+	*8,100	*5.8	*21,600	*15.4	24,900	17.8	139,800
<i>Total females 65+</i>	<i>145,500</i>	<i>10.7</i>	<i>361,800</i>	<i>26.7</i>	<i>475,700</i>	<i>35.1</i>	<i>1,355,100</i>

Source: AIHW analysis, ABS 2007c.

**Table 8.3: Donors of money, by age and sex, 2006**

	Males		Females		Persons	
	Number	Per cent	Number	Per cent	Number	Per cent
18-24	539,000	54.4	657,900	69.3	1,197,000	61.7
25-34	1,003,200	71.4	1,121,900	79.9	2,123,800	75.6
35-44	1,102,500	74.4	1,248,800	82.9	2,351,800	78.7
45-54	1,098,100	79.2	1,213,000	85.8	2,313,000	82.6
55-64	862,000	77.0	952,900	85.1	1,816,100	81.1
65-74	522,400	76.7	574,600	80.5	1,097,700	78.7
75-84	313,600	76.5	397,800	78.5	711,400	77.6
85+	54,400	69.3	103,000	73.7	157,500	72.1
<b>Total 65+</b>	<b>890,400</b>	<b>76.1</b>	<b>1,075,500</b>	<b>79.1</b>	<b>1,966,500</b>	<b>77.7</b>

\* Estimate has a relative standard error of 25% to 50% and should be used with caution.

\*\* Estimate has a relative standard error greater than 50% and is considered too unreliable for general use.

Source: Derived from ABS 2007m:Table 33.

Informal assistance provided by family and friends is the main source of non-parental care of children as well as care for people of all ages with disability. Older people are a significant source of informal care for family and friends who need assistance in their daily lives. They supply the majority of informal care for children, and in almost 23,000 families, children are being raised by grandparents. Older spouses represent a substantial proportion (43%) of primary carers of older people with disability or poor health. A number of older people continue to provide care for adult children with disability, a role that for some has extended over many years.

Informal care is important in helping older people with disability to remain living in the community. However, it is important to recognise that older people are themselves significant providers of informal care.

### Informal child care

Most families need someone else to look after their children at times, so that parents or guardians can work, study or do other things. Grandparents make a considerable contribution to informal child care. Findings from the ABS Child Care Survey reveal that, in 2005, grandparents were the main informal child carers, providing care for 60% of children receiving

informal child care (661,200 children) or 20% of all children aged 0–12 years (ABS 2006g). Grandparents were used as informal carers mainly for work-related (52%) or personal (36%) reasons. Around 97% of care by grandparents was provided at no cost.

Although grandparents may enjoy their caring role, it can affect their income, health or access to free time, particularly if they provide large amounts of care (ABS 2005b). Grandparents tended to care for shorter amounts of time than other relatives, although some provided extensive care—overall, grandparents provided around 50% of the total hours of informal child care in the survey week. The majority of children (62%) received less than 10 hours of care per week from their grandparents and were cared for on 1 or 2 weekdays per week (63%) or only on weekends (14%). However, 7% received care for 35 or more hours per week, 11% were cared on 5 weekdays per week and 10% were cared for on both weekdays and weekends.

### Grandparents raising grandchildren

Grandparents may assume responsibility for their grandchildren's emotional, practical and financial support, when parents are no longer able to fulfil their parental responsibilities. The reasons for this include substance

**Table 9.1: Characteristics of grandparent families, 2003**

	Grandparent families		Children in grandparent families	
	Number	Per cent	Number	Per cent
<b>Age of younger partner or lone grandparent</b>				
<55	8,700	38.7	13,100	42.1
55–64	10,100	45.1	12,900	41.3
65+	*3,700	*16.3	*5,100	*16.5
<b>Age of youngest child</b>				
0–4	*3,300	*14.8	*6,800	*21.9
5–11	8,400	37.4	11,500	36.8
12–14	8,000	35.8	9,800	31.5
15–17	*2,700	*12.1	*3,000	*9.7
<b>Labour force status</b>				
One or both grandparents employed	7,600	33.8	10,100	32.5
No grandparent employed	14,900	66.2	21,000	67.5
<b>Main source of income</b>				
Government pension, benefit or allowance	13,900	61.6	20,700	66.4
Other	8,100	36.2	9,700	31.0
<b>Total</b>	<b>22,500</b>	<b>100.0</b>	<b>31,100</b>	<b>100.0</b>

\* Estimate has a relative standard error of 25% to 50% and should be used with caution.

Source: Reproduced from ABS 2004d:Table 25.Z



abuse, relationship breakdown, mental or physical illness, or death (COTA National Seniors Partnership 2003).

There were 22,500 grandparent families with children aged 0–17 years in Australia in 2003 (Table 9.1). These families represented around 1% of all families with children aged 0–17 years. In the majority of grandparent families (73%) the age of the youngest child was between ages 5 and 14. In 39% of grandparent families, the younger partner or lone grandparent was younger than age 55, and in the majority (61%) of grandparent families, the younger partner or lone grandparent was aged 55 years or more.

The literature indicates that, despite differences in the social security, education and health systems between developed countries, the experiences of grandparents are similar—grandparents struggle with financial and legal issues, they are often not eligible for payments and support services available to others who provide formal out-of-home care to children not their own, and their legal rights are often ambiguous and difficult to enforce (COTA National Seniors Partnership 2003). Grandparents who have to resume parenting roles often experience huge life change because of this. They may become socially isolated from their peers because of the demands of raising children and feel a sense of loss for their child-free retirement years (AIHW 2003a).

They may also face financial hardship. In around one-third (34%) of grandparent families, one or both grandparents were employed, and 62% received a

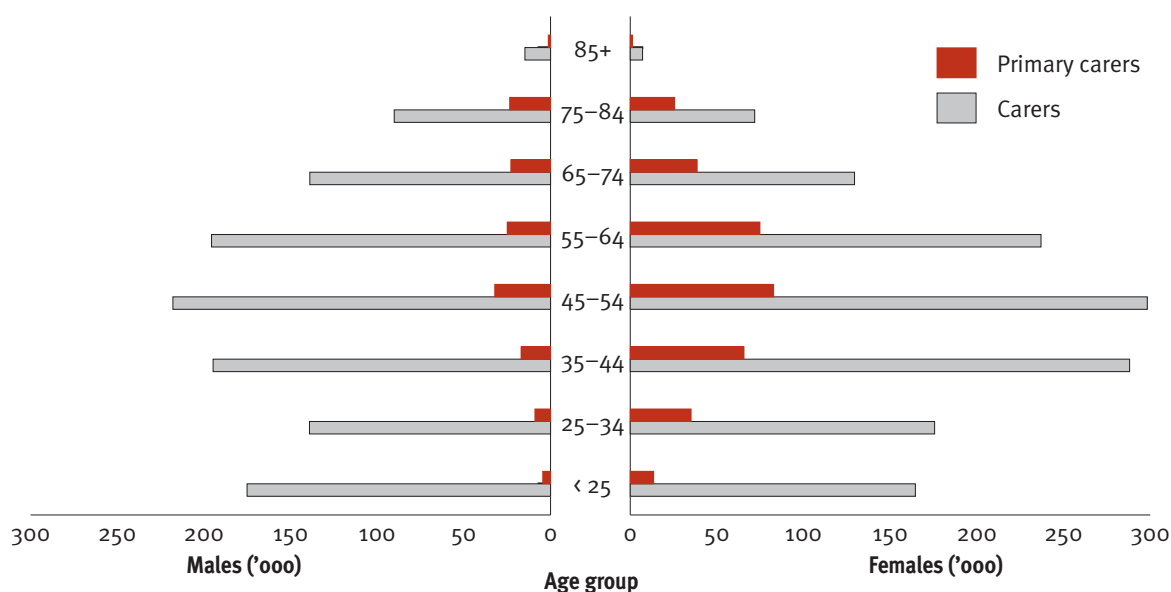
government pension, benefit or allowance as their main source of income (Table 9.1). The government support and payments available to grandparents to support their parenting role has depended on whether grandchildren come into and remain in their care under Commonwealth Family Law, state child protection legislation or informal arrangement (COTA National Seniors Partnership 2003). These issues are currently under consideration by federal, state and territory Community and Disability Services Ministers.

### Older carers

According to the ABS Survey of Disability, Ageing and Carers (SDAC), a carer is a person who provides ongoing help or supervision to people with disability or a long-term health condition, or to people aged 60 years and over (ABS 2004b). In 2003, there were 2.5 million carers, of whom 18% (452,300) were aged 65 and over (Table A9.1). Around 472,500 carers were primary carers—providing the most ongoing informal assistance with self-care, mobility or communication to a person with disability—and 24% (113,100) of these were aged 65 years and over.

This means that, overall, 19% of older people were carers and 5% were primary carers—among older people this proportion peaked in the 75–79 year age group among whom 6% were primary carers (AIHW 2005b). By age 85 few people were the primary carers of others (under 1%).

**Figure 9.1: Carers and primary carers, by age and sex, 2003**



Source: Table A9.1.

Although 54% of all carers were women, less than half of older carers were women (46% or 208,300 carers). Women predominated among primary carers—over two-thirds (71%) of all primary carers were women and women outnumbered men in all but the oldest age group (aged 85 years and over) (Figure 9.1).

Women take on the caring role at a younger age than men and are more likely to provide care for people other than their own partners (ABS 2005d: Table 19). Among older carers, 92% of male carers were caring for a partner compared with 76% of female carers; 8% of older female carers were looking after their son or daughter and 5% were caring for a parent. Around 9,000 older people were primary carers for people who were neither their partner, child nor parent (AIHW 2005b).

## The caring role

The type of assistance provided by carers is potentially wide-ranging, including emotional support, financial and practical assistance, and supervision and assistance with personal care, mobility and communication for extended periods. Among older primary carers, 77% assisted with mobility, 66% assisted with self-care and 29% assisted with communication (AIHW analysis, ABS 2004a).

The caring role can be undertaken by people for a number of years. One-third (33%) of older primary carers had spent more than 10 years in the caring role, with a further 23% having spent between 5 and 9 years. Caregiving by primary carers can also be intense—79% of older carers were assisting a person with continuous rather than episodic care needs (AIHW analysis, ABS 2004a).

Caregiving is bound up with interpersonal relationship and role expectations (Hales 2007) and many carers see their role as a natural expression of their relationship with a family member or friend. This may at times result in reluctance to seek help or support. Most older carers are caring for a spouse or partner (83%). Since primary carers of a spouse or partner are the least likely of all primary carers to seek help (Hales 2007), they may be at risk of not receiving support when it is needed.

## Health and disability status

Along with personal rewards, caregiving can also involve significant costs for carers, including negative effects on carer health and wellbeing.

The health of the majority of older primary carers (based on self-report) is good (40%), very good (21%), or excellent (7%), although almost a third have either fair (27%) or poor (5%) health (AIHW analysis, ABS 2004a). Perhaps not surprisingly, younger primary carers reported

better health than older carers, with 50% of carers aged 15–44 years reporting their health as either very good or excellent compared with 38% of those aged 45–64 and 28% of those aged 65 years and over. A lower proportion of older primary carers also reported excellent or very good health compared with the overall population aged 65 years and over, of whom 36% reported having excellent or very good health (ABS 2006r).

Although the majority of older primary carers reported relatively good health, a significant proportion (59% or 66,400) had disability and around 15,100 (13%) had a severe or profound core activity limitation (AIHW analysis, ABS 2004a).

## Income support for carers

Government pensions and allowances were the main source of cash income for 75% of older carers and 82% of older primary carers (AIHW analysis, ABS 2004a). Age Pension was the most common type of government pension, allowance or benefit provided to around 69% of older carers and 67% of older primary carers. In addition to general income support, older carers may be able to access government payments for carers: the Carer Payment and the Carer Allowance. At the end of 2006, 6,019 older carers were receiving the Carer Payment and 96,198 older carers were receiving the Carer Allowance (AIHW 2007c).

The Carer Payment is an income support payment for people who are unable to support themselves through substantial participation in the workforce while caring for someone with disability, or severe medical condition or who is frail aged. It is set at the same rate as the Age Pension. As at September 2007, a single person on the maximum rate of Carer Payment received \$537.70 a fortnight, and a couple \$898.20 per fortnight. The Carer Payment is subject to the same income and assets tests as the Age Pension. Older carers who are eligible for the Age Pension generally receive this instead of the Carer Payment.

The Carer Allowance is an income supplement payment available to people who provide daily care and attention in a private home to a person who has disability or a severe medical condition or who is frail aged. It is adjusted on 1 January each year, and in 2007 was set at \$98.50 per fortnight (Centrelink 2007). The Carer Allowance is free of income and assets tests and may be paid in addition to the Carer Payment or other payments.

The extent and nature of older people’s involvement in family, community and social life are important influences on their quality of life. This topic discusses older people’s social involvement with family and friends, their participation in ongoing learning, cultural and sporting activities and events, and their involvement in other leisure and recreational activities such as travel and tourism. Older people’s ability to participate in some of these activities may be affected by a range of factors considered elsewhere in this publication, such as housing, transport, access to information technology, income, health, and disability. Although many older people are socially and physically active, participation and attendance rates generally decline with age, leaving a significant proportion of older people who do not participate in or attend these activities.

This topic does not capture the full range of activities and interests in which older people engage. Information about participation in other activities and interests such as hobbies (e.g. games and puzzles, arts and crafts, reading, music, collecting, gambling and computing) was collected as part of the 2006 ABS Time Use Survey; the data were not, however, available at the time of preparing this publication.

## Social contact and participation

### Contact with family and friends

According to the 2006 ABS General Social Survey (GSS), around 96% of the 2.5 million people aged 65 years and over living in the community (people living in residential aged care are excluded from this survey) had contact at least once a week with family or friends living outside the household (Table 10.1). Around 76% had face-to-face contact in the previous week with family and friends with whom they did not live.

A larger proportion of older women were in face-to-face contact in the previous week with family and friends than men (82% compared with 69%), and this was true for all but the oldest age group. Patterns of contact across age groups differed for men and women. For example, compared with their younger counterparts, a lower proportion of men aged 85 and over had any form of contact with family or friends, but a higher proportion had face-to-face contact. The pattern for women was broadly similar across age groups for each type of contact.

**Table 10.1: Contact at least once a week with family and friends living outside the household by people aged 55 and over, by sex, 2006**

	Any form of contact		Face-to-face contact		Total	
	Number	Per cent	Number	Per cent	Number	Per cent
<b>Female</b>						
55-64	1,084,500	96.4	922,100	82.0	1,125,100	100.0
65-74	681,500	96.0	584,900	82.4	710,100	100.0
75-84	488,600	96.7	409,100	81.0	505,100	100.0
85+	139,200	99.5	114,000	81.5	139,800	100.0
<i>Total females 65+</i>	<i>1,309,300</i>	<i>96.6</i>	<i>1,107,900</i>	<i>81.8</i>	<i>1,355,100</i>	<i>100.0</i>
<b>Male</b>						
55-64	1,059,300	94.4	848,800	75.7	1,121,600	100.0
65-74	649,500	95.4	476,400	70.0	680,700	100.0
75-84	388,700	95.6	263,100	64.7	406,700	100.0
85+	69,900	89.0	65,300	83.1	78,500	100.0
<i>Total males 65+</i>	<i>1,108,100</i>	<i>95.0</i>	<i>804,700</i>	<i>69.0</i>	<i>1,166,000</i>	<i>100.0</i>

Source: AIHW analysis, ABS 2007c.

## Participation in informal social activities

Around 93% of older people living in the community participated in informal social activities (e.g. visiting or socialising with friends) in the 3 months before interview (Table A10.1). The most common type of social activity was visiting (or being visited by) friends (87%), followed by meeting friends for indoor (61%) or outdoor (58%) activities. Internet social activity was the least popular form of social activity (7%). The decline in social activity by age was most marked for socialising with outdoor activities—this was true for both men and women.

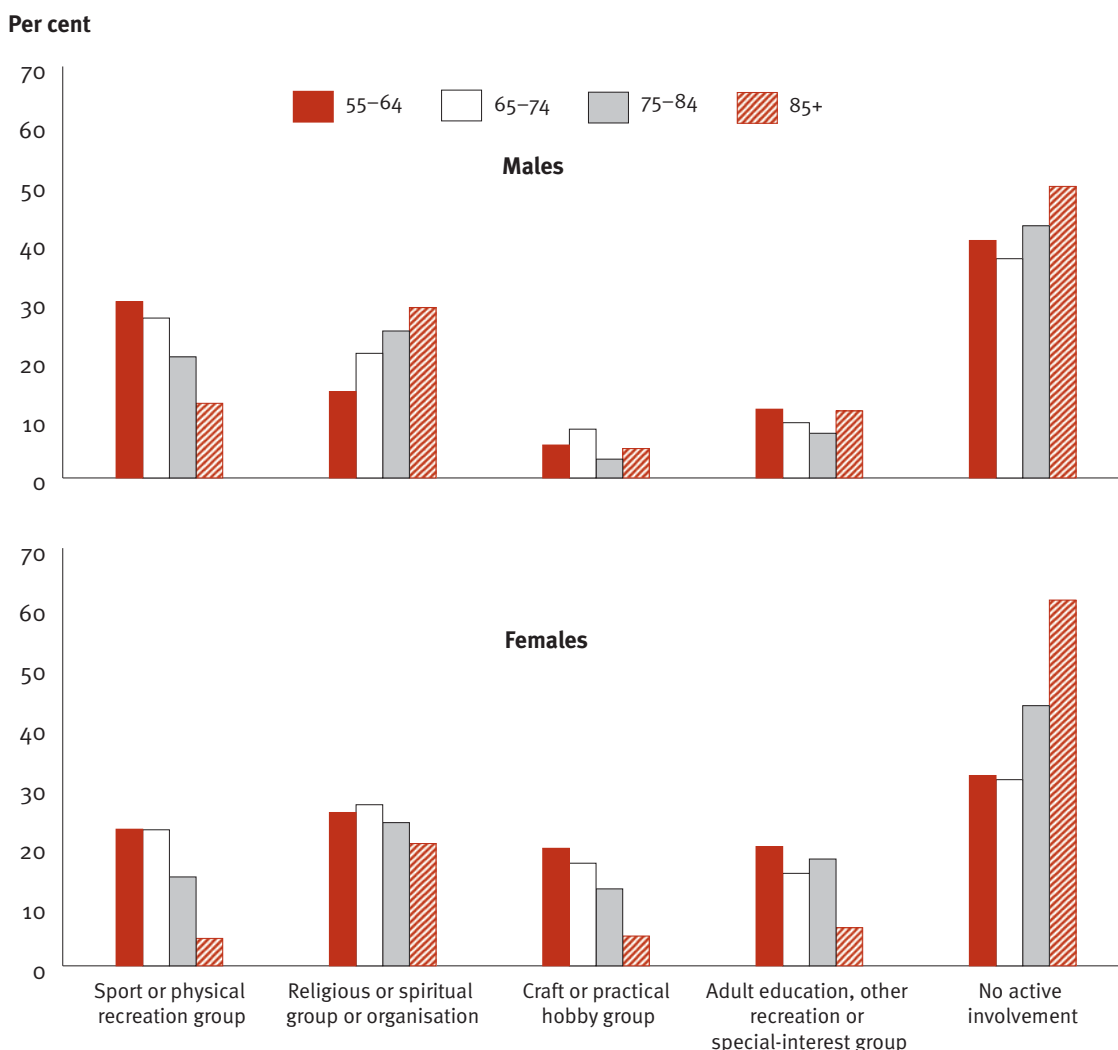
Similar proportions of older men and women participated in these social activities until aged 85

years and over where males had lower participation rates than females. At these ages, 15% of males and 9% of females had not undertaken any of these informal social activities in the previous three months.

## Participation in social or support groups

Over 1.5 million community-dwelling people aged 65 years and over (61%) were actively involved in a social or support group in the 12 months before the 2006 GSS (Table A10.2). The overall proportion of older people actively involved in a social or support group decreased with each subsequent age group, particularly

**Figure 10.1: Active involvement in social or support groups in the last 12 months, by age and sex, 2006**



Source: Table 10.2.

for women—66% of people aged 65–74 years were actively involved in a social or support group compared with 43% of people aged 85 and over. Religious or spiritual organisations were the most popular social or support group among older people (24%) followed by sports and physical recreation groups (21%).

The pattern of involvement is quite different in some respects for men and women. Overall, similar proportions of older men and women were actively involved in a social or support group, although older men appeared more likely to be involved in a sport or physical recreation group (24% compared with 18%) and older women were more likely to be involved in craft or practical hobby groups (6% compared with 14%) or adult education, other recreation or special interest groups (9% compared with 15%) (Figure 10.1). The decline in participation in any social group by age group is much more striking for women than men—by age 85 years and over, 61% of women have no active involvement compared with 50% of men. This may reflect higher rates of severe disability among women in this age group compared to men (see Topic: *Disability*), along with higher rates of widowhood (see Topic 3: *Marital status and living arrangements*), and lower rates of access to a car to drive (see Topic 5: *Transport*).

Women's participation in all types of groups generally declines with age, although the decline is smallest for religious or spiritual groups. Men's participation profile by age group is more variable—their participation in

religious organisations increases with age and their participation in adult education and other special-interest groups, declines from ages 55–64 to 75–84 then increases for those aged 85 years and over (Figure 10.1 and Table A10.2).

## Education participation

Relatively small numbers of older people participate in mainstream formal education. In 2005, there were 4,214 students aged 60 years and over enrolled in higher education courses around Australia—around 62% were for postgraduate awards (DEST 2006:Table 19). Approximately 31,600 people aged 60–64 years and 28,500 people aged 65 years and over were in a publicly-funded vocational education and training course in 2005 (NCVER 2006:Table 3).

Somewhat larger numbers of older people participate in less formal learning and training activities. The University of the Third Age (U3A) encourages retired people to take part in lifelong learning activities for pleasure in a relaxed environment at low cost. The U3A Online website provides considerable resources to help U3As meet their educational objectives. In 2005, there were 178 U3A groups providing courses and allied social activities for more than 54,000 older Australians (Swindell 2005).

**Table 10.2: Attendance at cultural events and venues, by age and sex, 2005–06 (per cent)**

	Males			Females			Persons		
	55–64	65–74	75 & over	55–64	65–74	75 & over	55–64	65–74	75 & over
Art galleries	23.8	20.5	14.1	27.9	22.4	16.7	25.8	21.5	15.6
Museums	26.8	19.7	12.1	23.0	18.6	10.2	24.9	19.2	11.0
Zoological parks & aquariums	29.9	20.2	9.4	32.1	25.1	12.3	31.0	22.7	11.0
Botanic gardens	34.6	33.4	21.5	40.2	36.4	24.9	37.4	34.9	23.5
Libraries	25.5	29.6	29.7	35.0	37.4	30.0	30.3	33.6	29.9
Classical music concerts	12.0	11.9	7.6	13.7	11.6	11.0	12.8	11.8	9.6
Popular music concerts	17.9	14.0	6.4	19.4	11.9	6.5	18.7	12.9	6.5
Theatre performances	15.9	13.8	4.2	24.3	19.6	10.1	20.1	16.8	7.6
Dance performances	5.2	5.1	*1.9	11.8	8.4	6.1	8.5	6.7	4.3
Musicals & opera	17.3	14.7	8.1	22.5	17.3	14.1	19.9	16.0	11.5
Other performing arts	14.0	10.4	7.8	17.9	12.9	6.5	15.9	11.7	7.1
Cinemas	53.1	40.3	23.6	58.1	49.1	28.9	55.6	44.8	26.7
<b>At least one venue or event</b>	<b>79.6</b>	<b>68.6</b>	<b>54.4</b>	<b>82.0</b>	<b>76.6</b>	<b>61.7</b>	<b>80.8</b>	<b>72.7</b>	<b>58.6</b>
<b>Total population ('000)</b>	<b>1,109.1</b>	<b>677.1</b>	<b>485.3</b>	<b>1,108.3</b>	<b>709.1</b>	<b>644.9</b>	<b>2,217.3</b>	<b>1,386.2</b>	<b>1,130.2</b>

\* Estimate has a relative standard error of 25% to 50% and should be used with caution.

Source: Reproduced from ABS 2007a: Table 3.



## Attendance at cultural venues and events

In 2005–06, almost 1.7 million people aged 65 years and over attended at least one cultural event or venue in the previous 12 months. The proportion of adults attending at least one cultural event or venue decreased with each subsequent age group—for example, 97% of people aged 15–17 (794,700 persons) to 59% of people aged 75 years and over (661,900 people) (ABS 2007a: Table 3). Older women were more likely to have attended at least one cultural event or venue in the 12 months before interview than older men (70% and 63% respectively); this was true for most activities. The cinema was the most popular cultural event or venue among older people (37%), followed by libraries (31%) and botanic gardens (29%).

## Sport and physical activity

In 2005–06, around 575,900 people aged 65 years and over *attended* at least one sporting event in the 12 months before interview (ABS 2007k :Table 1). The proportion of adults attending a sporting event generally decreased with each subsequent age group—only 23% of people aged 65 years and over attended a sporting event compared with 39% of those aged 55–64 years

and 57% of people aged 18–24 years (ABS 2007k: Table 1). Attendance rates were higher for men than for women at all ages—30% for men and 18% for women aged 65 years and over (ABS 2007k:Table 1).

A much larger number—over 1.2 million people aged 65 years and over—*participated* in sport or physical recreation in 2005–06 (Table 10.3). The proportion of adults participating in sport or physical recreation generally decreased with each subsequent age group—49% of people aged 65 years and over participated in sport or physical activity compared with 63% of those aged 55–64 years and 73% of people aged 18–24 years (ABS 2007i:1). Participation rates were slightly higher for older men (51%) than for women (48%), and were higher for non-organised sport and physical activities (39%) than for organised sport and physical activities (18%) (Table A10.3).

Walking for exercise was the most popular activity among those aged 65 and over (29%), followed by lawn bowls (5.6%) and golf and aerobics/fitness (both 5.4%). Participation rates decreased between ages 55–64 years and 65 years and over for most activities— notable exceptions were carpet bowls and lawn bowls which increased their popularity among those aged 65 years and over (5.6%).

**Table 10.3: Participation in selected sports and physical recreation activities, by age, 2005–06**

	55–64		65+	
	Number	Per cent	Number	Per cent
Aerobics/fitness	168,200	7.6	136,200	5.4
Bush walking	90,100	4.1	41,800	1.7
Carpet bowls	**1,800	**0.2	39,100	1.6
Cycling	114,200	5.2	42,800	1.7
Fishing	35,600	1.6	34,100	1.4
Golf	190,100	8.6	135,000	5.4
Lawn bowls	65,400	2.9	141,900	5.6
Swimming	134,300	6.1	104,500	4.2
Tennis	84,600	3.8	51,300	2.0
Walking for exercise	771,500	34.8	732,100	29.1
Yoga	44,900	2.0	*6,800	0.3
<b>Any activity</b>	<b>1,386,500</b>	<b>62.5</b>	<b>1,243,900</b>	<b>49.4</b>
<b>All persons</b>	<b>2,217,300</b>	<b>100.0</b>	<b>2,516,400</b>	<b>100.0</b>

\* Estimate has a relative standard error of 25% to 50% and should be used with caution.

\*\* Estimate has a relative standard error of greater than 50% and is considered too unreliable for general use.

Note: Table includes the top 10 activities for each age group.

Source: Reproduced from ABS 2007i:Tables 1 & 7.



## Tourism

Older people are a significant and growing tourism market, but are not a homogeneous tourism segment (Franklin 2006). The myth that older tourists are all grey-haired nomads on an Australian safari with high disposable income and endless leisure time is not supported by the evidence—in fact, older people take fewer trips than the average Australian but stay longer, only 1 in 10 trips have people staying in caravans, and many older people face different financial, carer and health realities in their later years.

In 2005, domestic overnight travellers aged 65 years and over took an estimated 8.0 million overnight trips, accounting for 11% of all domestic overnight trips; they spent 48.1 million nights, accounting for 17% of total nights spent by all domestic overnight visitors (Table 10.4).<sup>1</sup> This equates to an average length of 6.0 nights, higher than the average length of stay for those aged 15–54 years or 55–64 years. Older domestic day travellers took an estimated 17.7 million daytrips, accounting for 14% of all domestic daytrips.

Outbound or international travellers aged 65 years and over took an estimated 381,000 trips, accounting for 9% of all outbound trips. They spent 10.3 million nights, accounting for 11% of total nights spent by all outbound tourists. This equates to an average length of 27

nights, higher than the average length of stay for those in younger age groups.

Not surprisingly, Hossain et al. (2003) found that in 2002 older domestic travellers were more likely to be female, retired or on a pension, have less household income and be less likely to travel for business purposes than those aged between 15–64 years. Domestic travellers aged 55 and over tended to undertake less active activities than those aged 15–54 years and were more likely to be part of a couple. Taking a holiday and visiting friends and relatives were the two main reasons for taking overnight trips or daytrips, regardless of age. Older domestic travellers were more likely to stay with friends or relatives on overnight trips.

1 In 2005, people aged 65 and over represented 16% of the Australian population aged 15 years and over (ABS 2006d).

**Table 10.4: Domestic overnight trips, domestic daytrips and outbound trips, by age, 2005**

	15–54	55–64	65+
<b>Domestic overnight trips &amp; visitor nights</b>			
Overnight trips ('000)	52,245	9,682	7,997
Visitor nights ('000)	184,667	43,119	48,073
Average length of stay (nights)	3.5	4.5	6.0
<b>Domestic daytrip visitors</b>			
Daytrip visitors ('000)	94,137	18,289	17,694
<b>Outbound trips &amp; total nights <sup>(a)</sup></b>			
Outbound trips ('000)	3,217	657	381
Total nights ('000)	66,513	14,761	10,339
Average length of stay (nights)	20.7	22.5	27.1
<b>Total population ('000)</b>	<b>11,492</b>	<b>2,190</b>	<b>2,668</b>

(a) Outbound trips refer to international trips.

Source: NVS 2005.

Technology is playing an increasing role in the lives of older Australians in maintaining independent living and enhancing quality of life, including through helping older people to maintain contact with their family and community. Some of the impediments to independence for older people are frail physical and mental health, poor or inappropriate housing conditions, low income levels, lack of transport facilities, and low levels of community information and community services (IPTS 2006). Rapid advances in information technology and assistive technology are playing an important role in helping older people to maintain or regain their independence by preventing, delaying or overcoming such obstacles. These advances have the potential to change the way many aspects of health and social care are delivered (Audit Commission 2004).

### Information technology

Personal computers and the Internet provide ever-expanding opportunities for older Australians to communicate, gather information, carry out business and access services. A smaller proportion of older Australians use a home computer compared with younger age groups—in 2004–05, 20% of older Australians had used a computer at home in the previous 12 months (Table 11.1). Almost all of these had used it for personal or private purpose (97%). For 19% of users the purpose was work or business related, and 18% used it for education or study. About 30% of users reported using it for voluntary or community purposes, higher than for any other age group.

Over the same period, 17% of older people had used the Internet compared with 68% of those aged 45–54 years and 49% of those aged 55–64 years (Table 11.2). Among older people accessing the Internet at home, dial-up access (71%) is more common than broadband (26%).

Although users aged 65 years and over were much less likely than other age groups to purchase or order goods or services via the Internet (5%) (Table 11.3), the proportion has been increasing over recent years in line with a general trend (ABS 2005e). The proportion is also likely to increase in the future as those currently aged 55–64 years move into older age groups.

In common with people aged 45–64 years, travel, accommodation or tickets of any kind was the most common goods or services purchased over the Internet by older users (76%) followed by computer software, hardware or internet time (39%). The proportion purchasing CDs, music, DVDs, videos, books or magazines (18%) was less than for other age groups.

The most common 'main reason' among older Australians for not purchasing via the Internet was 'have no need' (39%) followed by 'security concerns' (27%) and 'prefer to shop in person/ like to see the product' (21%). Overall, the pattern of reasons for older people was similar to that for younger age groups (Table 11.4).

Latest results from the 2006 ABS General Social Survey (GSS) show that use of computers and the Internet by older Australians is rapidly increasing (ABS 2007d). In 2006, 29% of older Australians used a computer at home in the 12 months before interview and 21% accessed the Internet at home (AIHW derived from ABS 2007d). These are marked increases from 20% and 15% respectively in 2004–05 (Tables 11.1 and 11.2).

In summary, there has been marked growth in access to a home computer and to the Internet in Australia during the 1990s and recent years (ABS 2006k, 2007d). Computer use and Internet access by older Australians remains lower than for younger age groups but both are increasing rapidly. This is important because information technology is being increasingly used for information dissemination and service delivery to older people.

**Table 11.1: Home use of computers, by age, 2004–05 (per cent)**

	45–54	55–64	65+
Home use of computer	67	51	20
Use of computers by purpose			
Personal or private	95	95	97
Work or business related	65	50	19
Education or study	39	26	18
Voluntary or community	20	18	29
Other	10	9	8

Note: Estimates for 'home use of computer' from the 2006 ABS GSS are 75% (45–54), 60% (55–64) and 29% (65+). However, this later survey did not collect the detailed information collected in the 2004–05 Household Use of Information Technology Survey, which forms the basis for this topic.

Source: ABS 2005e.

**Table 11.2: Use of the Internet, by age, 2004–05 (per cent)**

	45–54	55–64	65+
Use of Internet by site			
Home	59	42	15
Work	37	23	3
Neighbour's/ friend's or relative's house	13	8	3
Public library	6	4	2
TAFE or tertiary institution	5	3	*1
Other	13	8	2
Any site	68	49	17
Personal use of the Internet by type of access			
Dial-up	61	71	71
Broadband	37	27	26
Both	*1	*1	**2
Don't know	*1	*1	*1

\* Estimate has a relative standard error of 25% to 50% and should be used with caution.

\*\* Estimate has a relative standard error greater than 50% and is considered too unreliable for general use.

Note: More than one site may be nominated.

Source: ABS 2005e.

**Table 11.3: Internet transactions, by age, 2004–05 (per cent)**

	45–54	55–64	65+
Purchased or ordered goods or services via the Internet for private use	37	22	5
<b>Goods or services purchased or ordered via the internet</b>			
Food, groceries or alcohol	9	7	*6
CDs, music, DVDs, videos, books or magazines	30	24	18
Software, hardware or Internet time	36	35	39
Clothes, sporting equipment or toys	14	8	*6
Travel, accommodation or tickets	80	79	76
Other	16	14	*14

\* Estimate has a relative standard error of 25% to 50% and should be used with caution.

Source: ABS 2005e.

**Table 11.4: Main reason for not purchasing via the Internet, by age, 2004–05 (per cent)**

	45–54	55–64	65+
Have no need	33	31	39
Prefer to shop in person/like to see the product	19	22	21
Security concerns/concerned about providing credit card details online	31	30	27
Privacy concerns/concerned about providing personal details online	4	4	*5
Trust concerns/concerned about receiving or returning goods	*2	*3	*3
Other	11	10	6
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

\* Estimate has a relative standard error of 25% to 50% and should be used with caution.

Source: ABS 2005e.

## Assistive technology

Aids and equipment have been important for a long time in helping people maintain independence. This 'traditional' assistive technology has included, for example, orthotics and prosthetics, wheelchairs, hearing and speech aids, and showering and bathing aids. In 2003, 923,400 older Australians with disability used aids and equipment to help with daily functioning in the areas of self-care, mobility, communication, hearing, meal preparation and health care. The more commonly used equipment were mobility aids, medical aids, hearing aids, showering/bathing aids, toilet aids, incontinence aids, seating/ bedding aids, and mobile/cordless phones (AIHW analysis, ABS 2004a).

Other ways currently being developed and promoted to support the ability of older Australians to remain in their homes for longer are the concept of 'lifetime homes' (flexible housing design adapting to a person's changing needs as they age) and 'smart home' technologies (CDC 2005). These include technologies in areas of home security (e.g. keyless access, video doorbell), safety (e.g. smoke or gas detectors, fire sprinklers, iron safety options), intelligent housing (e.g. monitored hot water systems, personal heating systems, internal and external lighting, garden care), and communications (e.g. Internet shopping, banking and information access; voice over internet protocol (VoIP) services; captioning; phone amplification; talking watches).

Two broad applications of electronic assistive technology focus on the delivery of health and care services (sometimes called telehealth and telecare respectively).

### Telehealth

Telehealth enables the routine monitoring by health professionals of vital signs of patients in their homes. Its application is growing with the development of multimedia capability; the range of remote sensors available for diagnosis, monitoring and treatment; the introduction of wireless technology; and the potential for systems to be made artificially intelligent. Some specific examples include the remote monitoring of heart rate, body weight or blood glucose. Data from the home are transmitted to a response centre or clinician's computer and compared with 'normal' parameters. In the area of preventive medicine, telehealth includes home monitoring for the early detection of the onset of certain medical conditions; using the computer to motivate health-conscious behaviour change; and using home sensors to help health professionals with diagnosis and treatment. Information and

communications technology is increasingly being used to improve the management of chronic disease (Cellar et al. 2003).

### Telecare

Telecare involves the provision of equipment and services that support people in their homes and meet their needs. Examples relevant to safety and movement include community alarm and emergency response systems, and detectors or monitors for falls, fire and gas that trigger a warning to a response centre. Remote monitoring of cooking and washing facilities, sleep patterns and toilet usage can provide useful information for carers (Audit Commission 2004). Lifestyle monitoring can provide early warning of deterioration in an individual's health or wellbeing, prompting a response from family or professionals. Telecare systems can provide reminders for a variety of users and are particularly useful for people suffering short-term memory loss or people in the early stages of dementia. An important application is to help people manage their medications.

### Ethical considerations

The potential benefits associated with the use of assistive technology need to be balanced with important ethical issues around informed consent, data access and privacy. The right of users to override the technology and the right to opt out from using the technology should they so wish are also important considerations.

### Current situation in Australia

Although there are some data on the use of information technology by older Australians and on the use of aids and equipment by older Australians with disability, there are no reliable national estimates on the uptake of the newer assistance technologies.

There is much interest in these areas and, in 2006, a forum on assistive technologies and information technology for managing health and disease in ageing communities was held under the auspices of the Australian Research Council/NHMRC Research Network in Ageing Well (ARO 2006). The Network has a special-interest group on ageing and technology which, apart from looking specifically at chronic disease, is pursuing a broader research agenda on the role of technology in ageing including the use of low tech solutions and the wider incorporation of technologies into the built environment.

As people retire and enter the older age groups, income from wages, salaries and business activities tends to be replaced by income from superannuation, investments and/or government pensions. In addition to income level, wealth accumulated over a lifetime contributes to an older person's economic wellbeing and lifestyle opportunities.

This topic examines levels and sources of current household income and wealth as well as patterns of household expenditure of older Australians living in the community. Reporting household income recognises that income received by individuals is normally shared between partners in a couple relationship and with dependent children. Even where income is not directly shared, other people living in the same household may benefit from the provision of free or low-cost accommodation, or at least from the economies of scale that arise from sharing a dwelling (ABS 2007e).

## Income

In 2005–06, households with a reference person in the age group 65–74 years recorded a median gross household income of \$472 per week; households with a reference person aged 75 years and over recorded a

lower median income of \$421 per week (Table 12.1). These income levels reflect the high proportion of older Australians who are reliant (fully or partially) on Age or Service Pensions.

Government pensions and allowances are the main source of income for most people aged 65 years and over, followed by income from superannuation and investments (Table 12.1; see Topic 13: *Age Pension and superannuation* for more detail). Wages, salaries or income from privately run businesses is a principal source of income for approximately 62% of households with a reference person in the age group 55–64 years but only 13% of households with a reference person in the age group 65–74 years. Government pensions and allowances were the principal source of income for 65% of households with a reference person in the age group 65–74 years and for more than three-quarters (77%) of households with a reference person aged 75 and over. Superannuation and investments were the main source of income for nearly equal proportions of households with a reference person in the age group 65–74 years and 75 years and over (22% and 21% respectively).

Differences in household composition complicate the comparison of average household incomes across age groups. The ABS uses the concept of equivalised household income to enable comparisons of incomes

**Table 12.1: Weekly household income and principal source of household income by age group of reference person, 2005–06**

	Age of reference person in household (years)			All households <sup>(a)</sup>
	55–64	65–74	75+	
<b>Weekly household income</b>				
Mean gross weekly household income (\$)	1,279	668	526	1,305
Median gross weekly household income (\$)	989	472	421	1,040
Mean equivalised disposable household income (person-weighted) (\$ per week)	708	451	406	644
Median equivalised disposable household income (person-weighted) (\$ per week)	611	362	331	563
<b>Proportion of households by principal source of household income (%)</b>				
Wages/salaries or income from own unincorporated business	62.4	12.8	2.3	65.4
Government pensions and allowances				
Retirement pensions	4.9	60.1	65.3	13.4
Other pensions	19.6	5.3	11.5	12.7
<i>Total government pensions and allowances</i>	24.5	65.4	76.8	26.1
Other income				
Superannuation or annuities	6.1	14.4	11.3	3.7
Investments and other income	6.3	7.2	9.6	4.3
<i>Total other income</i>	12.4	21.6	20.9	8.0
Zero or negative income	0.8	0.1	0.0	0.5
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(a) Includes households with a reference person aged 15 or over.

Source: ABS 2007f:Table 13A.



across households with different composition (for example, lone person households versus couple only households or households of couple with dependent children). Measures based on this concept show that, after adjusting for household composition, average (mean or median) income in households with a reference person aged 65 years and over is lower than the national average and is also lower than the average equivalised household income of other age groups (Table 12.1; ABS 2007f).

## Wealth

Although average incomes of older individuals and households are relatively low, average wealth is relatively high. Older people's share of total wealth has increased over the past two decades (due in part to demographic change) (Kelly & Harding 2004). This pattern is prompting considerable public commentary on the potential for personal wealth, such as owner-occupied housing, to be a source of increased self-provision in retirement.

Wealth is a net concept and measures the extent to which the value of household assets exceeds the value of household liabilities. In 2005–06, households with a reference person in the age group 55–64 years had the highest mean household net worth (\$824,000) (ABS 2007f:Table 13A). The mean net worth of households with a reference person in the age group 65–74 years was somewhat lower than this at \$743,000, and that of households with a reference person aged 75 years and over was lower again at \$575,000. Reduced mean net worth at older ages compared with wealth at age 55–64 years is attributed to the drawing down on assets for consumption during retirement and different patterns of wealth accumulation throughout the lifecycle for different age cohorts (ABS 2006l).

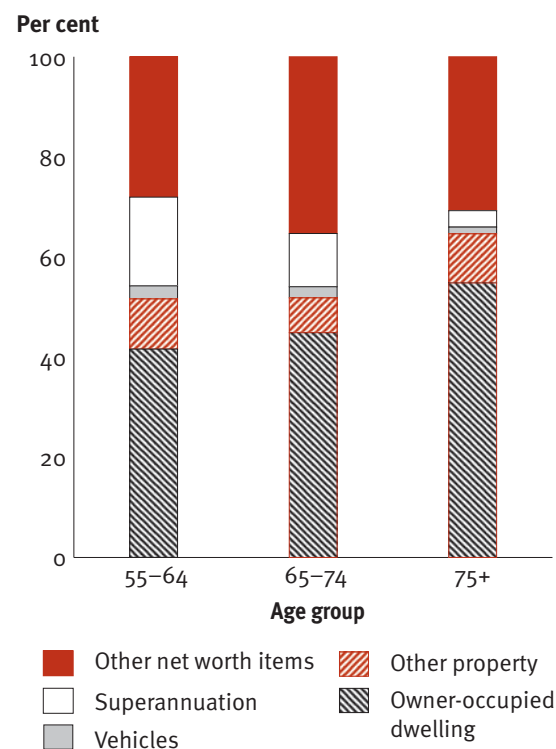
The mean net worth of older households was higher than the average mean net worth of all households (\$563,000) and also higher than for all younger households with a reference person aged under 45 years (ABS 2007f:Table 13A). Older households also have significantly lower levels of debt than younger households (ABS 2006l:Table 20).

In 2003–04 (more detailed wealth data from the 2005–06 survey was not available at the time of writing), 85% of couples with a reference person aged 65 years and over owned their home without a mortgage as did 74% of lone persons aged 65 years and over (ABS 2006l:Table 3). For many older people their home represents a significant part of their assets;

the net value of owner-occupied housing comprises a higher proportion of net worth in households with a reference person aged 65–74 years (45%) and households with a reference person aged 75 years and over (55%) than in households with a reference person aged 55–64 years (42%) (Figure 12.1).

Consistent with its lifecycle stage, households with a reference person aged 55–64 years hold a larger proportion of their net worth in the form of financial assets, especially superannuation (18%), compared with older households (ABS 2006l:Table 20). Superannuation assets currently represent 11% of the wealth of households where the reference person is aged 65–74 years and 3% where the reference person is 75 years and over. Many retired households will have converted superannuation lump sums into other asset classes and/or have drawn down on their superannuation lump sums to generate income streams, to reduce debt or fund large purchases. In addition, only a small proportion of older households will have had access to superannuation schemes over their entire working lives (FaCSIA 2007b).

**Figure 12.1: Composition of household net worth by age group of reference person, 2003–04**



Source: ABS 2006l:Table 20.



A number of researchers and commentators suggest that greater use can be made of private housing wealth to fund retirement income needs and aged care. Financial products such as reverse mortgages are increasingly available—these products allow the home owner to draw down on home equity while continuing to live in the home, an arrangement that might appeal to older people who wish to remain in their familiar local community rather than move house in order to release home equity. A 2004 study found that older Australians were generally dissatisfied with existing products and the level of regulation applying to this financial sector (Olsberg & Winters 2005). Beal (2001) reported the findings of a survey of home owners that suggested a greater willingness among 45–64 year olds to draw on housing wealth to support retirement compared with those aged 65–74 years, and concluded that community attitudes to the use of housing wealth are changing (assuming the results reflect a cohort, rather than age, effect).

## Household expenditure

Household expenditure patterns reflect the expenditure patterns of individual households which are affected by factors such as lifecycle stage and household composition.

On average, older households spend less per week on goods and services than younger households (ABS 2006j: Table 19). This is the case for both overall expenditure and the goods and services component. Estimated average weekly expenditure on goods and services by households with a reference person aged 65 years and over in 2003–04 was \$509.70, compared with \$853.96 for a household with a reference person aged 55–64 years and an average for all households of \$892.83.

Older couple-only households spent an average of \$614.65 per week on goods and services; the comparable figure for older lone person households was \$350.78 (ABS 2006j: Table 17). These household types spent less on average than comparable household types with younger aged reference persons.

Expenditure on goods and services represented around 91% of total household expenditure in households where the reference person was aged 65 years and over, whereas such expenditure constituted a considerably lower proportion of total household expenditure in younger households (ranging from 73% to 82% on average; ABS 2006j: Table 19). Older person households tend to have lower expenditure in

areas other than goods and services, such as income tax, mortgage principal repayments, superannuation contributions and insurance premiums.

Different categories of goods and services account for different proportions of total household goods and services expenditure across the age groups. The relative contributions of broad categories of goods and services to total expenditure are similar for older (65+) and mature-age (55–64 years) households. In both cases, food and non-alcoholic beverages, transport, and recreation consume approximately 48% of total goods and services expenditure. On average, current housing costs contribute 13% of goods and services expenditure in older households and 11% in mature-age households.

The profile of expenditure in lone person older households is quite different in some respects from that of older and mature-age couple households. Current housing costs represent a larger proportion of expenditure on goods and services in older lone person households (21%) than in older or mature-age couple-only households (10% and 9% respectively). Older lone person households also spend relatively more on household services and operation and relatively less on transport and recreation than older or mature-age couple households (Table A12.1). A higher proportion of expenditure on current housing costs in lone person households is most likely to be related to the higher proportion of renters in this population (21% compared with older and mature-age couple households (8% and 7% respectively) (ABS 2006j: Table 18).

The affordability of health care is a concern for many older people. At a national level, spending on health practitioner fees was one of the areas of greatest increase in household expenditure between 1998–99 and 2003–04 (44% increase; ABS 2006j). Medical and health expenses account for a higher proportion of expenditure in both older and mature-age couple-only households (8% for each household type) and lone person older households (9%) than for younger household types.

The ABS has developed analytical cost-of-living indexes to measure the impact of changes in prices on the out-of-pocket living costs of four types of households, including age pensioner and self-funded retiree households. These analytical indexes have been designed to answer the question ‘By how much would after tax money incomes need to change to allow households to purchase the same quantity of consumer goods and services as purchased in the base period?’ (ABS 2003a).

Over the 8-year period covered by the indexes, changes in living costs for each household type (29.2% for age pensioner householders and 26.9% for self-funded retiree households) have tracked closely to the Consumer Price Index (CPI) (27.4%) (ABS 2006a). Over the four quarters from June 2005 to June 2006, living costs for each of the household types covered by the indexes have increased at a higher rate than the CPI—age pensioner households had the highest percentage increase (5.0%) and the rise for self-funded retiree households was 4.6%. The CPI rose by 4.0% over the same period.

The relatively greater increases in this period have been attributed to changes in the cost of particular goods and services which are used more by these household types than others. In particular, older households spend more on certain food items, such as fruit, which had relatively higher price increases during this period, and less on eating out, which had a relatively smaller increase. In terms of housing, all household types had price increases above the CPI. The CPI includes house purchases which are excluded from the analytical indexes—while house purchase costs increased by 3.6% in the CPI, utilities charges and property rates, which have a greater weight in the analytical series compared with the CPI, rose by 5%. Older households also experienced slightly higher increases in health costs compared with employee households—this is attributed to higher increases in concession Pharmaceutical Benefits Scheme (PBS) prices compared with non-concession PBS costs.

Australia's retirement income system is built on three main 'pillars': pension payments (Age Pension and Service Pension); compulsory employer superannuation contributions (the superannuation guarantee); and voluntary savings, including voluntary superannuation savings, home equity and other cash and non-cash assets. Currently, government-funded pensions and income from superannuation and investments are the main sources of income for most retired older people (see Topic 12: *Income, wealth and expenditure*).

In response to population ageing, current policy directions are broadly aimed at reducing reliance on government-funded pensions by increasing superannuation coverage and entitlements (e.g. through the introduction of the superannuation guarantee in 1992 and changes to the taxation of superannuation benefits for people aged 60 years and over from 1 July 2007) and encouraging increased workforce participation among mature-age workers (e.g. through the phased increase in the superannuation preservation age for people born on or after 1 July 1960 from ages 55 to 60, and the introduction of the Pension Bonus Scheme in 1998).

## Age Pension

The Age Pension in Australia has always been a non-contributory payment funded from general revenue. Eligibility is not linked to previous labour force participation but is subject to income and assets tests. The qualifying age for women is being progressively

increased and will be the same as men (age 65) from 1 July 2013. In June 2006, 66% of the Australian population over the qualifying age received the Age Pension (at 30 June 2006, the qualifying age for men was 65 years and for women 63).

Age Pension payments are indexed to the Consumer Price Index (CPI) and benchmarked to 25% of male total average weekly earnings. At 30 June 2006, the maximum single pension rate was \$499.70 per fortnight (by September 2007 this had risen to \$537.70). For those on the partnered full-rate pension, the maximum amount for each member of a couple was \$417.20 per fortnight in June 2006 (rising to \$449.10 in September 2007). In addition to the pension payment, recipients of the Age Pension receive a Utilities Allowance, an allowance to help with utilities bills. A Pensioner Concession Card entitles the holder to price reductions for certain prescription medications, reduced thresholds for the Medicare Safety Net and discretionary bulk-billed medical services<sup>2</sup>, as well as Rent Assistance and Telephone Allowance. State and territory governments and private organisations also offer various concessions to age pensioners, for example on health, household, transport and recreation services.

- 2 Self-funded retirees may be eligible for the income-tested Commonwealth Seniors Health Card, which entitles the holder to concession rates on PBS medicines, increased benefits for out-of-pocket expenses incurred for hospital outpatient services, and bulk-billed general practitioner appointments at the doctor's discretion.

**Table 13.1: Age Pension recipients as at 30 June 2006 (per cent)**

	Under 65	65-69	70-74	75-79	80-84	85+	Total
<b>Males</b>							
Full-rate pension	–	17.1	17.2	15.0	6.4	4.1	59.8
Part-rate pension	–	12.6	11.4	9.6	4.3	2.3	40.2
<i>Total</i>	–	29.7	28.6	24.6	10.7	6.4	100.0
<i>Total (number)</i>	–	235,870	227,077	195,446	85,229	50,923	794,545
<b>Females</b>							
Full-rate pension	5.1	15.0	14.0	11.9	8.3	8.9	63.3
Part-rate pension	3.6	10.0	8.2	6.6	4.3	4.0	36.7
<i>Total</i>	8.7	25.0	22.2	18.5	12.6	12.9	100.0
<i>Total (number)</i>	97,056	278,843	248,331	206,945	140,817	144,357	1,116,349
<b>Persons</b>							
Full-rate pension	3.0	15.9	15.3	13.2	7.5	6.9	61.8
Part-rate pension	2.1	11.1	9.6	7.9	4.3	3.3	38.2
<b>Total</b>	<b>5.1</b>	<b>26.9</b>	<b>24.9</b>	<b>21.1</b>	<b>11.8</b>	<b>10.2</b>	<b>100.0</b>
<b>Total (number)</b>	<b>97,056</b>	<b>514,713</b>	<b>475,408</b>	<b>402,391</b>	<b>226,046</b>	<b>195,280</b>	<b>1,910,894</b>

Note: Table excludes manually assessed and suspended recipients paid by Centrelink and excludes Age Pension recipients paid by DVA.

Source: FaCSIA unpublished data.

Of the 1.9 million recipients of the Age Pension at 30 June 2006, 62% received a full-rate pension (Table 13.1). Part-rate pensions are more common among younger age pensioners, accounting for approximately 41% of pension recipients aged less than 70, compared with 32% of recipients aged 85 and over. Recent trends show people reaching Age Pension qualifying age with higher levels of income and assets and therefore more likely to receive a part-rate than full-rate pension than previously (FaCSIA 2006). It is projected that by 2050 two-thirds of age pensioners will receive a part-rate pension owing to rising superannuation coverage and higher workforce participation rates in older age groups (Costello 2007; DFACS 2003).

In June 2006 women made up 58% of age pensioners but were a higher proportion in older age groups, rising to 74% at ages 85 years and over, consistent with women's greater longevity. Both overall and across ages, relatively more women than men were on a single rate of payment as opposed to a partnered rate (56% of female pensioners compared with 30% of male pensioners; see Table A13.1).

The Pension Bonus Scheme is a voluntary program that provides an incentive for older Australians to stay in the workforce. Eligible scheme members defer claiming the Age Pension and are rewarded with a tax-free lump sum payment for continuing to work a set number of hours a year (Centrelink 2004) when they eventually claim and receive the Age Pension. In 2005–06 bonus payments were made to 8,030 people under this scheme (FaCSIA 2006).

## Superannuation

In 2000, an estimated 78% of males and 71% of females in the pre-retired population had some level of superannuation coverage; however, among retired people aged 45 years and over, only 55% had contributed to a superannuation scheme at some stage. Two-thirds of retired people who had contributed to superannuation received a lump sum benefit—this benefit for more than half (54%) those who received a lump sum benefit within the previous 4 years was less than \$40,000. The majority of those who had received a lump sum benefit (31%) used it to clear home mortgage debt, pay for home improvements or purchase a home. Smaller proportions used the lump sum to purchase or pay debt on a motor vehicle (14%) or pay for a holiday (12%) (ABS 2006v). Around one-fifth (22%) rolled the lump sum over into an approved deposit fund, deferred annuity or superannuation scheme, and a similar proportion (23%) invested the money elsewhere. In 2004–05, around 12% of the retired

population aged 45 years and over received income from superannuation or annuities (ABS 2006v).

It has been argued that the superannuation savings of many people now approaching traditional retirement ages will not provide for an adequate level of income in retirement. For example, an estimated 50% of females born between 1946 and 1961 have superannuation accounts of \$8,000 or less (Kelly 2006). Gender differences in superannuation coverage reflect differences in the occupational and earning profiles of men and women and women's higher rates of part-time and casual work.

Historical data may not be a reliable guide to retirement incomes in the future. Changing patterns in superannuation coverage for people in the labour force and in the use of superannuation savings by retired people stem from a range of factors, for example:

- changes to superannuation and related taxation policy that affect whole cohorts of working-age people (e.g. introduction of the superannuation guarantee, superannuation co-contributions)
- changing workforce participation and workplace relations that may have a greater or less impact on certain groups of employees (e.g. women or specific industries or occupations)
- social changes that affect the living and income sharing arrangements of large numbers of people
- changing patterns of educational attainment
- changing patterns of housing tenure and the accumulation of wealth more generally over a lifetime
- time effects, such as when a retired person exhausts his or her superannuation savings and that person's retirement income profile changes as a result.

## Changes to income sources in retirement

The main source of income for some individuals can change over the course of retirement. Almost two-thirds of retired men in 2004–05 relied on a government pension or benefit as their main source of income (Table 13.2). However, at the time of their retirement, only 54% had received government pensions as their main source of income. Government pensions and allowances show the greatest change in numbers of people when comparing source of income at retirement with current income source. Just over 1.3 million retirees received government pensions and allowances as a main source of income at retirement; this number had increased to almost 2 million for current income in 2004–05.

People who rely on 'other' main sources of income at retirement (which includes a partner's income) are more likely to subsequently receive most of their retirement income from another source. Around 590,000 people relied on 'other income' at retirement, yet only 60,000 people reported 'other income' as their current main source of income in 2004–05. The bulk of movement from 'other income' on retirement to different sources of income is people taking up government pensions and allowances.

'Other income' is associated with the lowest average age at retirement of all income categories, for both men and women (ABS 2006u:Table 4.2 online data cubes). The average age at retirement of women who report 'other income' (40 years) is 7 years younger than the average age at retirement for currently retired women. Potentially, access to income from a spouse or partner in his or her prime working years enables people to retire at comparatively early ages, but they would then

forgo additional years of independent earning and superannuation contributions.

Superannuation was the main source of income at the time of retirement for 20% of retired men and 6% of retired women. Around two-thirds of fully retired people in 2004–05 who had retired to live mainly on superannuation or annuities or income from rental properties continued to rely on these as a main source of income (ABS 2006u:Table 4.2 online data cubes).

Such changes may be due to events such as divorce or death of a spouse, the exhaustion of private sources of income or by reaching qualifying age for the Age Pension. Changes are more common among retired women than men, and are evident in each source of income category with the exception of superannuation and annuities.

**Table 13.2: Retired persons, source of income at retirement and current income, 2004–05<sup>(a)</sup>**

	Main source of income at retirement		Main source of current income	
	('000)	(per cent)	('000)	(per cent)
<b>Males</b>				
Government pension/allowance	707.3	53.9	855.8	65.2
Superannuation or annuity	260.4	19.8	234.0	17.8
Profit or loss from own unincorporated business or share in a partnership	29.3	2.2	*12.0	0.9
Other (includes partner's income)	89.8	6.8	*23.4	1.8
No income - living off savings, lump sum payments or other assets	86.6	6.6	40.2	3.1
Dividends or interest	73.7	5.6	83.8	6.4
Profit or loss from rental property	*25.0	1.9	29.4	2.2
Did not know	26.5	2.0	**2.5	0.2
Not stated/not determined	*13.7	1.0	31.4	2.4
<b>Total</b>	<b>1,312.4</b>	<b>100.0</b>	<b>1,312.4</b>	<b>100.0</b>
<b>Females</b>				
Government pension/allowance	621.3	36.8	1,140.0	67.5
Other (includes partner's income)	502.4	29.8	39.9	2.4
No income - living off savings, lump sum payments or other assets	298.1	17.7	114.6	6.8
Superannuation or annuity	106.2	6.3	102.6	6.1
Dividends or interest	48.3	2.9	168.7	10.0
Profit or loss from own unincorporated business or share in a partnership	41.4	2.5	*24.2	1.4
Profit or loss from rental property	32.8	1.9	47.7	2.8
Did not know	28.2	1.7	*8.5	0.5
Not stated/not determined	*8.9	0.5	41.3	2.4
<b>Total</b>	<b>1,687.7</b>	<b>100.0</b>	<b>1,687.7</b>	<b>100.0</b>

\* Estimate has a relative standard error of 25% to 50% and should be used with caution.

\*\* Estimate has a relative standard error greater than 50% and is considered too unreliable for general use.

(a) Persons aged 45 and over fully retired from the workforce in 2004–05 who had been in paid employment for at least 2 weeks in the previous 20 years (ABS 2006v).

Source: ABS 2006u:Table 4.1 online data cubes.



One major public policy response to population ageing in Australia has been to identify the projected fiscal burden that will arise from the provision of income support, and health and aged care services to growing numbers of older people (e.g. Costello 2002, 2007). A focus on the 'fiscal burden' of an ageing population can result in a reduced appreciation of the contribution that older Australians make to their families and communities. These contributions take many forms, including the provision of care for family members and friends (see Topic 9: *Providing care*), voluntary work and contributions to other community activities (see Topic 8: *Community and civic participation*).

Older Australians also provide financial and material support to others in the community, particularly to other family members. This topic considers some of the ways that financial and 'in-kind' transfers occur between older Australians and their families. The main focus is on the provision of such support by older people, at least some of which will be directed to other older people (e.g. ageing parents, siblings). The topic does not consider transfers over a lifespan (see, for example, King & McDonald 1999; Lloyd et al. 2005) but rather takes a snapshot-in-time approach. Previous Australian

studies have tended to show that older people are major monetary and non-monetary contributors to their adult children and their families (De Vaus & Qu 1998; Millward 1998; Legge & O'Loughlin 2000). These studies concluded that, while the flow of support between generations is in both directions, the evidence suggests that the balance within families appears to be in the direction of older generations supporting younger generations.

### Financial support

The 2006 ABS General Social Survey (GSS) collected self-reported information on certain types of financial support given by selected adults to relatives living in other households, including to children aged 25 years and over, elderly parents or grandchildren. Based on these self-reported data, it is estimated that about 24% (600,000) of older Australians were providing support for older children (aged 25 years and over) or other relatives living outside the household (Table 14.1). The proportion of people providing such support declined with age group, although was still quite common (21%) among those aged 75 years and over. Overall, a higher proportion of older men compared with older

**Table 14.1: Persons providing support to other relatives<sup>(a)</sup> living outside the household, 2006 (per cent)**

	55-64	65-74	75 and over	Total 65 and over
Men	34.1	26.6	25.0	25.9
Women	38.3	27.3	17.9	22.8
<b>Persons</b>	<b>36.2</b>	<b>27.0</b>	<b>21.0</b>	<b>24.3</b>
<b>Types of support<sup>(b)</sup> (persons)</b>				
Money to help pay housing costs	8.0	4.8	3.4	4.2
Provide or pay for food	8.6	3.5	2.5	3.1
Provide or pay for clothing	5.5	4.0	2.2	3.2
Pay for educational costs or textbooks	3.5	2.8	2.5	2.7
Give them spending money	6.5	5.9	6.0	6.0
Buy or give them money to buy big cost items	7.0	4.0	3.0	3.5
Give them money to pay bills or meet debt	11.7	6.7	5.5	6.2
Let them borrow car	7.7	8.1	5.6	7.0
Drive them places	15.5	11.1	5.9	8.8
Other support	2.4	3.3	1.4	2.4
<b>Total</b>	<b>36.2</b>	<b>27.0</b>	<b>21.0</b>	<b>24.3</b>

(a) Support provided to relatives such as children aged 25 and over, elderly parents or grandchildren who live outside the household. Own or partner's children aged under 25 are excluded.

(b) Categories are not mutually exclusive so components do not add to the total.

Note: Few older Australians (< 1%) had children aged under 25 living outside the household.

Source: ABS 2007d.



women provided such support, although the reverse was true in the younger age groups.

The most common forms of direct financial support to other relatives (excluding children under age 25) were for older people to give money to pay bills or meet debt, or to give spending money (both about 6%). This pattern was slightly different for people aged 55–64 years who most commonly provided direct financial support to provide or pay for food (8.6%) and assist with housing costs (8%).

No data were collected on the amount of financial support or the characteristics of the recipients (e.g. are the recipients younger relatives or older parents), and data in these areas are scarce. A study by the Australian Institute of Family Studies in 1996 found that about 73% of 'later life' parents (parents aged between 50 and 70) said that they had given financial support to their adult children, and that the amount was related to their financial ability to assist (Millward 1998). More recently, a study of Australians aged 50 years and over reported that more than a third of respondents said they had given financial assistance to their children or younger family members to purchase a home (Olsberg & Winters 2005).

Younger people also provide financial support to older relatives, and the 2006 GSS provides data similar to that in Table 14.1 for younger age groups. However, because it is not possible to identify the characteristics of recipients, the extent to which such support from younger age groups was directed to people aged 65 years and over is unclear (ABS 2007d). Nor does the GSS collect data on the amount of financial assistance provided by immediate family members to older people (e.g. to buy household equipment). The Australian Institute of Family Studies (1996) found that 23% of 'later life' parents (parents aged 50–70 years) said that they had received financial assistance from their adult children (Millward 1998).

## Indirect financial support

The most common forms of indirect (or in-kind) financial support identified through the GSS was through driving relatives to places (8.8%) and letting relatives borrow the car (7%) (Table 14.1). Another form of indirect financial support within families is the continued use of the parental home by adult children, a situation that has increased in recent decades. For example, the proportion of people in their 20s who were living with at least one parent increased from 21% in 1976 to 30% in 2001 (ABS 2005g). Some of the major

reasons cited as underlying this phenomenon include the increasing cost of housing, higher attendance rates at tertiary educational institutions, delayed marriage ages, marriage breakdown, and the rising cost of living (ABS 1999; Legge & O'Loughlin 2000). In 1999, 10% of older Australians (aged 65 years and over) and 30% of people aged 55–64 years experienced children returning to the household (ABS 2002b). Adult children living at home (remaining at home or returning home) may of course pay board or provide services to their parents.

In turn, some older people live in accommodation owned by or provided by their immediate family (e.g. granny flat, attached flat, living with family) but there are few national data available.

The provision of various types of informal care by older people may also carry financial benefits to recipient family members. There are clear financial benefits to younger family members from the provision of informal child care by grandparents. Grandparents are the main providers of informal child care and around 97% of care by grandparents was provided at no cost (ABS 2006g; see Topic 9: *Providing care*). At June 2005, some 661,200 children were receiving some level of child care from grandparents, which represents 20% of all children under the age of 12 and 60% of all informal child care. This can be an important factor in enabling parents to continue or return to work, and reduces the associated costs to these families of caring for children. British and Australian studies have shown that between a quarter and a half of employed women have their children looked after by the grandmother while they are at work (Millward 1998).

In 22,500 Australian families, grandparents have assumed responsibility for raising their grandchildren when the children's parents are not able to fulfil their parental responsibilities (ABS 2004d; see Topic 9: *Providing care*). The financial value of this support is unquantified but considerable.

Similarly, the financial value of older people caring for people with disability has not been fully estimated but there are clear benefits to other family members and to the government (Access Economics 2005; NATSEM 2006). In 2003, about 452,000 older Australians provided assistance to people with disability—around one-quarter (113,100) as primary carer (Table A9.1; Topic 9: *Providing care*). The majority of older primary carers provided assistance to their spouse (93,700 representing 83% of older primary carers) (ABS 2004b). However, 10,600 older primary carers assist adult children with disability or frail older parents. The

Australian Government has implemented a package of measures to assist families wishing to make private financial provision for the current or future accommodation and care of an immediate family member with severe disability (FaCSIA 2007a).

Older people are also the recipients of informal care provided by younger family members with resultant financial benefits to them. Adult children (mostly daughters) represent 43% of primary carers assisting older people with disability—even though some of these adult children are aged 65 years and over (AIHW 2007c). The source of informal care for people aged 65–74 years with disability is most often a person or persons living in the same household (72%). The opposite is true for those aged 85 years and over, most of whom receive assistance from someone who lives in another household (79%), that is, more likely to be adult offspring than a spouse (see also Topic 29 *Care needs and sources of care*).

Wealth tends to be gradually accumulated throughout the working life and then used during retirement. Many factors will influence the amount of wealth available for inheritance, such as increasing longevity and longer retirement period, the range of economic options available, the changing attitudes, values and priorities of older Australians, and their need to contribute to their future health and aged care costs. Nevertheless, it seems likely that succeeding generations, as a whole, will receive substantial capital injections over the next decade or so because of the death or advancing years of older Australians, although this will not be evenly distributed.

## Inheritance

Some intergenerational transfer of wealth occurs through inheritance, and older Australians have become wealthier over recent decades. By 2004–05, real net worth per Australian (\$305,000) had increased for 14 consecutive years and has risen by over \$86,000 in the previous 3 years (Treasury 2006). Older Australians have shared in this national growth and own much of this national wealth (ABS 2006i), mostly in the form of property and superannuation (Headey et al. 2004; also see Topic 12: *Income, wealth and expenditure*). Total household wealth potentially available for transfer by bequests has been estimated at about \$8.8 billion in 2000 and this is expected to increase markedly over coming decades (Kelly & Harding 2003). This trend in the growth of retirees' wealth has occurred in many countries including the United States, the United Kingdom, Sweden and Italy (Kelly & Harding 2003). However, household net worth is unevenly distributed (ABS 2006i; Headey et al. 2004) and the majority of large inheritances go to people who are already financially secure (Kelly & Harding 2003, 2006).

The likelihood of receiving a substantial inheritance in any particular year is small. It has been estimated that approximately 220,000 people received an inheritance in each of the years 2002 and 2003, representing 1.4% of Australians aged 15 years and over (Kelly & Harding 2006). For these people, the median inheritance was less than \$20,000 and the average age of beneficiary was 48 years.



# Health and functioning

- 15 Ageing and health risk factors
- 16 Life expectancy, health status and causes of death
- 17 Disability levels
- 18 Burden of disease
- 19 Cardiovascular disease
- 20 Cancer
- 21 Diabetes mellitus
- 22 Respiratory disease
- 23 Mental health
- 24 Osteoarthritis and other musculoskeletal conditions
- 25 Dementia
- 26 Vision problems
- 27 Oral health

The health of older Australians is one of the most important medical and economic challenges facing Australia. There will be an increasing number of older Australians in coming decades (see Topic 2: *The changing demographic profile*), and there will be personal and national benefits if they are healthy. Healthy older Australians are less likely to leave the workforce for health reasons, and are more likely to enjoy retirement, with fewer health-care needs and less chronic disease and disability, hence placing less pressure on the national health budget.

A number of factors influence older people's ability to maintain good health and to participate in their community, such as sufficient income, adequate and safe housing, and a physical environment that facilitates independence and mobility. These issues are discussed elsewhere in this report. Older people's own behaviours regarding health risks are also an important influence on their health status. It is worth noting that people's health experiences in later life are affected by their health behaviour during their younger years, and in later life.

**Table 15.1: Prevalence of risk behaviours among Australians aged 55 and over, by age and sex, 2004–05**

Risk behaviour	55–64	65–74	75+	Total 65+
Percentage within age group				
<b>Males</b>				
Smoking <sup>(a)</sup>	20.2	12.7	5.5	9.7
Physical inactivity <sup>(b)</sup>	38.5	31.9	51.5	40.0
Poor diet				
Low fruit consumption <sup>(c)</sup>	43.9	39.4	38.1	38.9
Low vegetable consumption <sup>(d)</sup>	62.2	55.2	56.6	55.8
Usually consume whole milk <sup>(e)</sup>	37.5	38.0	46.6	41.5
Usually add salt to food <sup>(f)</sup>	38.6	40.5	39.8	40.2
Risky alcohol consumption <sup>(g)</sup>	17.6	11.5	4.9	8.8
<b>Females</b>				
Smoking <sup>(a)</sup>	14.2	8.4	4.0	6.3
Physical inactivity <sup>(b)</sup>	31.5	40.5	58.6	49.1
Poor diet				
Low fruit consumption <sup>(c)</sup>	29.7	31.8	30.0	30.9
Low vegetable consumption <sup>(d)</sup>	55.5	53.9	61.0	57.3
Usually consume whole milk <sup>(e)</sup>	25.2	31.8	39.9	35.6
Usually add salt to food <sup>(f)</sup>	23.9	22.1	27.5	24.7
Risky alcohol consumption <sup>(g)</sup>	13.4	9.3	5.6	7.5
<b>Persons</b>				
Smoking <sup>(a)</sup>	17.2	10.5	4.6	7.9
Physical inactivity <sup>(b)</sup>	35.0	36.3	55.6	44.9
Poor diet				
Low fruit consumption <sup>(c)</sup>	36.8	35.5	33.4	34.6
Low vegetable consumption <sup>(d)</sup>	58.9	54.5	59.1	56.6
Usually consume whole milk <sup>(e)</sup>	31.4	34.8	42.7	38.3
Usually add salt to food <sup>(f)</sup>	31.3	31.1	32.7	31.8
Risky alcohol consumption <sup>(g)</sup>	15.5	10.4	5.3	8.1

(a) Current regular (daily) smoker or current smoker not regular.

(b) Sedentary (exercise score less than 100, including no exercise) during previous 2 weeks. The exercise score was based on frequency, intensity and duration of exercise (for recreation, sport or fitness).

(c) Usual daily intake of one serve or less. Dietary guidelines recommend at least two serves of fruit per day for older Australians (NHMRC 2003).

(d) Usual daily intake of three serves or less. Dietary guidelines recommend at least five serves of vegetables per day for older Australians (NHMRC 2003).

(e) An indicator of total fat intake and saturated fat intake (Rutishauser et al. 2001).

(f) Dietary guidelines recommend choosing foods low in salt and using salt sparingly (NHMRC 2003). Estimates refer to 2001 as this data item was not collected in the 2004–05 NHS.

(g) Based on the NHMRC risk levels for harm in the long term (NHMRC 2001).

Note: Estimates are based on self-reported data. Individuals may be engaged in more than one type of behaviour.

Sources: ABS 2002c, 2006r.

## Behavioural risk factors

Healthy behaviours are an important determinant of good health. Conversely, risky behaviours, usually termed 'risk factors', put an individual at increased risk of experiencing disease. Some risk factors have a cumulative effect over the life course and risk behaviours in middle age can lead to poorer health in later life. There is, however, potential for health gain at all stages of life through appropriate management of these risk behaviours in addition to early prevention. The prevalence of major preventable risk behaviours that can lead to ill-health in older Australians is shown in Table 15.1.

### Smoking

Levels of smoking tobacco products have declined generally in Australia, particularly among older Australians (ABS 2006r). The lower rates among older Australians reflect a greater prevalence of smoking cessation in older age groups and greater mortality among smokers than non-smokers (AIHW 2004a). Smoking rates remain higher among older men than older women (Table 15.1). Smoking is a major risk factor for coronary heart disease, stroke, peripheral vascular disease, cancer, chronic obstructive pulmonary diseases and a variety of other diseases and conditions. There is evidence that smoking cessation can have a substantial beneficial effect on subsequent mortality (Anthonisen et al. 2005).

### Physical inactivity

There was little change in exercise levels among older Australians during the 1980s and 1990s (AIHW 2004a, 2006c). Physical inactivity is relatively more common in older age groups (Table 15.1), perhaps reflecting reduced functioning and increased rates of disability in older age. Physical activity at all ages can help reduce the likelihood of obesity and delay functional decline and the onset of chronic disease. It can also reduce the severity of disability associated with chronic diseases, improve mental health, promote social contacts, prolong independent living and reduce the risk of falls (Bauman & Smith 2000; WHO 2002).

## Poor diet

Many older Australians are not consuming adequate amounts of fruit and vegetables. Older men are more likely than older women to report low fruit intake and, to a lesser degree, low vegetable intake (Table 15.1). For men, both low fruit intake and low vegetable intake are less common in older age groups when compared to men aged 55–64. This is not the case for women. Older men are more likely than older women to report whole milk as their usual form of milk, and the prevalence was highest among men and women aged 75 and over. Main type of milk consumed is an indicator of total fat intake and of saturated fat intake in relation to energy intake (Rutishauser et al. 2001). The prevalence of older Australians who reported that they usually add salt to food varied little by age but was higher among men than women.

## Risky alcohol consumption

The prevalence of alcohol consumption at levels that pose a risk to health in the longer term is lower in older age groups and is only 5% in Australians aged 75 years and older (Table 15.1). Alcohol in excessive levels over time increases the risk of developing some cancers, cirrhosis of the liver, alcohol dependence, cognitive problems, dementia, and sexual difficulties in men. Although there is evidence that low levels of alcohol may protect against heart disease and some types of stroke, heavy drinking has no additional benefits for heart disease and increases the risk of stroke. Although older people tend to drink less than people do in their younger or middle years, it remains an important part of social life that often expands in retirement. However, as people age their tolerance for alcohol tends to decrease; they are more likely to take medication, which may interact with alcohol; falls become a greater risk which is further increased with intoxication; and driving ability, which may be influenced by the effects of ageing, can be further impaired (NHMRC 2001).



## Protective behaviours—influenza vaccination

A range of other behaviours influence the health of older Australians including protective behaviours such as vaccination against influenza. Vaccination against influenza is available free to Australians aged 65 years and over. The most recent national telephone survey estimated that 79% of Australians aged 65 years and over were vaccinated against influenza in 2004 (AIHW 2005a), which is a marked increase from 61% in 1998. When the vaccination status of aged care residents was taken into account, the estimated coverage for 2004 increased slightly to 80%.

## Biomedical risk factors

Risk behaviours tend to interact with each other and influence a variety of biomedical factors, which are risk factors expressed as a body measurement. For example, both physical inactivity and a poor diet can adversely affect body weight, blood pressure and blood cholesterol. Behavioural and biomedical risk factors tend to increase each other's effects when they occur together in an individual. Information on four important biomedical risk factors that have been shown to carry comparatively direct and specific risks for health is presented in Table 15.2.

## Obesity

Older Australians have been strongly caught up in the national obesity epidemic — it has been estimated that older Australians are 6–7 kg heavier on average than their counterparts some 20 years ago (AIHW: Bennett et al. 2004). Even Australians in their 50s and 60s have continued to gain weight as they gain years, at least into their mid-70s. The prevalence of obese Australians is around 25–30% among people approaching retirement (Table 15.2). It has been shown that the prevalence of abdominal obesity, as indicated by waist circumference, is also common among Australians in their 50s, and becomes more common among older age groups (AIHW: Bennett et al. 2004). This is consistent with a redistribution of body fat more into the abdominal area as age increases. The likely health consequences for older Australians of increased body fat are premature death from life-threatening diseases and debilitating conditions that impair quality of life (WHO 2000). This has implications for health-care costs, for aged care services, and for carers and their wellbeing (AIHW: Bennett et al. 2004).

**Table 15.2: Prevalence of biomedical risk factors among Australians aged 55 and over, by age and sex, 1999–2000**

Biomedical risk factors	55–64	65–74	75 +	Total 65+
Percentage within age group				
<b>Males</b>				
Obesity <sup>(a)</sup>	25.5	19.9	12.7	16.9
High blood pressure <sup>(b)</sup>	49.3	69.4	78.8	73.3
High blood cholesterol <sup>(c)</sup>	62.0	53.8	49.3	51.9
Impaired glucose tolerance <sup>(d)</sup>	14.8	20.4	24.8	22.2
<b>Females</b>				
Obesity <sup>(a)</sup>	32.8	29.4	15.6	22.9
High blood pressure <sup>(b)</sup>	44.5	66.8	74.6	70.5
High blood cholesterol <sup>(c)</sup>	70.3	74.6	65.4	70.2
Impaired glucose tolerance <sup>(d)</sup>	15.7	21.9	22.1	22.0
<b>Persons</b>				
Obesity <sup>(a)</sup>	29.1	24.8	14.4	20.1
High blood pressure <sup>(b)</sup>	46.9	68.1	76.4	71.8
High blood cholesterol <sup>(c)</sup>	66.1	64.5	58.6	61.8
Impaired glucose tolerance <sup>(d)</sup>	15.2	21.2	23.2	22.1

(a) Obese is a body mass index of 30 kg/m<sup>2</sup> or more.

(b) High blood pressure is a systolic blood pressure of 140 mmHg or more or diastolic blood pressure of 90 mmHg or more or taking hypertensive medication.

(c) High blood cholesterol is total cholesterol of 5.5 mmol/L or more.

(d) Impaired glucose tolerance is plasma glucose concentration of less than 7.0 mmol/L after fasting, and 7.8 or more but less than 11.1 mmol/L 2 hours after an oral glucose load.

Sources: AIHW analysis of the 1999–2000 Australian Diabetes, Obesity and Lifestyle (AusDiab) Study; Dunstan et al. 2002.



## High blood pressure

High blood pressure is very common among older Australians and increases with age (Table 15.2). Often referred to as hypertension, high blood pressure is a major risk factor for coronary heart disease, stroke, heart failure and kidney failure, with the risk of disease increasing as the level of blood pressure increases. Major causes of high blood pressure include diet (particularly a high salt intake), obesity, excessive alcohol consumption and insufficient physical activity. Attention to other health determinants such as body weight, physical activity and nutrition play an important role in maintaining healthy blood pressure. When high blood pressure is controlled, the risk of cardiovascular disease and overall mortality is reduced, but not necessarily to the levels of unaffected people (WHO-ISH 1999).

## High blood cholesterol

High blood cholesterol is also very common among older Australians (Table 15.2), and is a major risk factor for coronary heart disease and ischaemic stroke. It is one of the main causes of atherosclerosis, the process by which the blood vessels that supply the heart and certain other parts of the body become clogged. For most people, saturated fat in the diet is the main factor that raises blood cholesterol levels (NHFA 1999). Genetic factors can also affect blood cholesterol levels, severely in some cases. Attention to health risk factors such as physical activity and nutrition plays an important role in maintaining a healthy blood cholesterol level (NHFA & CSANZ 2001). Some societies have much lower average cholesterol levels than Australia, with a correspondingly lower rate of cardiovascular disease (e.g. Greece, Japan and many African countries). Diet is an important factor in maintaining low average blood cholesterol levels in the community (Forge 1999).

## Impaired glucose tolerance

Impaired glucose tolerance (IGT) is a metabolic stage between normal glucose tolerance and diabetes. As well as being a risk factor for Type 2 diabetes, it is linked to a greater risk of heart disease. In people with IGT, blood glucose levels are higher than normal but less than the level required for a diagnosis of diabetes. IGT is common in people who are physically inactive or obese, particularly with high fat deposits in the abdominal region, and is more common in older people where such risk factors are more widespread. With increasing age, the cells in the pancreas that make insulin—beta cells—become less efficient. This, combined with decreased physical activity and increased body weight, contributes to higher prevalence among older people (Table 15.2). Dunstan et al. (2002) found that the increasing prevalence of obesity in Australia has been a significant contributing factor to the increasing prevalence of diabetes across all age groups. People who have a family history of diabetes are more likely to suffer from IGT and to develop diabetes.

### Life expectancy

At age 65, Australia's men now expect to live for a further 17.5 years and women for another 21.1 years, which is about 6 years more than their counterparts at the beginning of the 20th century (AIHW 2006c). Men and women aged 85 years can expect to live for a further 5.7 and 6.9 years respectively, which is about 2 years more than for the early 1900s. Most of these gains in life expectancy among older Australians occurred during the latter three decades of the twentieth century, when deaths from cardiovascular diseases (notably heart disease and stroke) fell rapidly. However, most of the recent gain in life expectancy was spent with disability, much with a severe or profound core activity limitation (AIHW 2006e). These trends in life expectancy have important consequences for the number of Australians reaching older ages and for patterns of health, disease and disability in the community.

### Health status

Many older people have a positive view of their health even though older age is generally associated with increasing levels of disability and illness. Self-assessed health status is used as an indicator of general health

and wellbeing, and has been found to be a strong indicator of future mortality (Idler & Benjamini 1997). By far the majority of older Australians consider themselves to be in good, very good or excellent health, although the proportion of older men and women reporting fair or poor health increases with age (Table 16.1). This was also the case in 1995 and 2001 (ABS 2006r). Over the decade to 2005 there has been an increase in the proportion of older Australians reporting their health as excellent or very good (ABS 2006r). Also, older women have consistently been more likely than older men to rate their health as excellent or very good, at any given age.

### Causes of death

The top 12 specific causes of death were responsible for almost 70% of all deaths among older Australians in 2004 (Table 16.2).

Ischaemic heart diseases (coronary heart diseases) and cerebrovascular diseases (notably stroke) were the two leading causes of death accounting for about 30% of all deaths among older men and women in 2004 (see Topic 19: *Cardiovascular disease*). These diseases are also major causes of disability among older Australians (see Topic 17: *Disability levels*). Other heart diseases, which include heart failure, also featured prominently.

**Table 16.1: Self-assessed<sup>(a)</sup> health status of Australians aged 55 and over, by age and sex, 2004–05**

	55–64	65–74	75+	65+
	Per cent			
<b>Males</b>				
Excellent/ very good	46.8	36.2	28.7	33.1
Good	27.8	31.0	34.7	32.5
Fair/ poor	25.4	32.8	36.5	34.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Females</b>				
Excellent/ very good	47.7	41.2	33.3	37.5
Good	28.8	30.0	32.4	31.1
Fair/ poor	23.6	28.7	34.3	31.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Persons</b>				
Excellent/ very good	47.2	38.8	31.3	35.5
Good	28.3	30.5	33.4	31.8
Fair/ poor	24.5	30.7	35.2	32.7
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(a) People's general assessment of their own health against a five-point scale ranging from excellent to poor.

Note: Components may not add to total because of rounding. Estimates for 2004–05 published by the ABS are age-standardised to permit comparison with 2001 and 1995 estimates.

Source: ABS 2006r.

Lung cancer was the third leading cause of death for older men and the sixth for older women. Colorectal cancer was also prominent for both sexes, and prostate cancer and breast cancer were two prominent sex-specific causes of death (see Topic 20: *Cancer*). Cancers where the primary site was unknown was ranked the 11th cause of death for both older men and women.

Chronic pulmonary obstructive disease, which includes emphysema, was a significant cause of death for older men and women (ranked fourth for men and fifth for women), responsible for just under 5% of all deaths among older Australians (see Topic 22: *Respiratory disease*).

Although the 'burden of disease' caused by dementia is mainly due to disability rather than premature death, dementia and related disorders, which include Alzheimer's disease, still cause many deaths among older Australians (ranked ninth for men and fourth for women) (see Topic 25: *Dementia*).

Diabetes was the underlying cause of over 3,000 deaths and was ranked the eighth leading cause

of death for both older men and women. It is more commonly listed as an associated cause of death, especially when coronary heart disease, cancer and stroke are the underlying causes of death (see Topic 21: *Diabetes mellitus*). It is also associated with much disability and poor quality of life.

Diseases of the arteries etc., which includes aortic aneurysm, atherosclerosis and other peripheral vascular diseases, was the twelfth leading cause of death for older men and women.

The top 12 leading causes of death for each of the age groups 65–74, 75–84 and 85+ are given in Tables A16.1–A16.3 and show important differences. For example, the top 12 causes of death for persons aged 65–74 years included pancreatic cancer, cirrhosis of the liver (men) and ovarian cancer (women). At ages 75–84 years, deaths from dementia and related disorders become relatively more important, and influenza and pneumonia appear in the top 12 causes of death for the first time. For those aged 85 years and over, influenza and pneumonia become relatively more important and deaths from kidney failure appear in the top 12 causes of death.

**Table 16.2: Leading causes of death in Australians aged 65 and over, by sex, Australia, 2004**

Rank	Males	Number	Per cent of total	Females	Number	Per cent of total
1	Ischaemic heart diseases	10,698	20.9	Ischaemic heart diseases	10,872	20.0
2	Cerebrovascular diseases	4,380	8.6	Cerebrovascular diseases	6,886	12.7
3	Lung cancer	3,539	6.9	Other heart diseases	3,950	7.3
4	Chronic obstructive pulmonary disease	2,736	5.3	Dementia & related disorders	3,223	5.9
5	Other heart diseases	2,688	5.3	Chronic obstructive pulmonary disease	1,991	3.7
6	Prostate cancer	2,534	5.0	Lung cancer	1,822	3.4
7	Colorectal cancer	1,610	3.1	Influenza & pneumonia	1,798	3.3
8	Diabetes	1,555	3.1	Diabetes	1,541	2.8
9	Dementia & related disorders	1,435	3.0	Colorectal cancer	1,489	2.7
10	Influenza & pneumonia	1,359	2.8	Breast cancer	1,477	2.7
11	Cancers (unknown primary site)	1,326	2.6	Cancers (unknown primary site)	1,423	2.6
12	Diseases of arteries etc.	1,134	2.2	Diseases of arteries etc.	1,157	2.1
	<b>Total (12 leading causes)</b>	<b>34,994</b>	<b>68.4</b>	<b>Total (12 leading causes)</b>	<b>37,629</b>	<b>69.4</b>
	<b>Total (All deaths 65+)</b>	<b>51,163</b>	<b>100.0</b>	<b>Total (All deaths 65+)</b>	<b>54,237</b>	<b>100.0</b>

*Notes*

1. See Appendix Table A16.4 for definitions of causes of death classification.
2. Information on the cause of death is gained from death certificates. The underlying cause of death is the disease or injury that initiated the train of events leading directly to death. Any other condition or event that is considered to contribute to the death is known as an associated cause.

Source: AIHW National Mortality Database.

Key factors affecting the ability of many people to take part in the daily activities of life—from workforce participation to independent living—include disability, illness or injury. Although the majority of older Australians are free from a disability for which they require personal care (77%), the proportion with more intensive care and assistance needs rises with age.

**Disability status**

In 2003, over half of all people aged 65 years and over (56% or 1.4 million) had at least one form of disability lasting (or expected to last) at least 6 months and which restricted everyday activities (Table A17.1). Disability rates increase with age group from 39% of those aged 60–64 years to 82% of those aged 85 years and over. There is little difference in the rates for males and females. Physical or multiple and diverse disability is the most common type of disability at older ages, affecting 45% of older people (AIHW 2005b:Table 5.2).

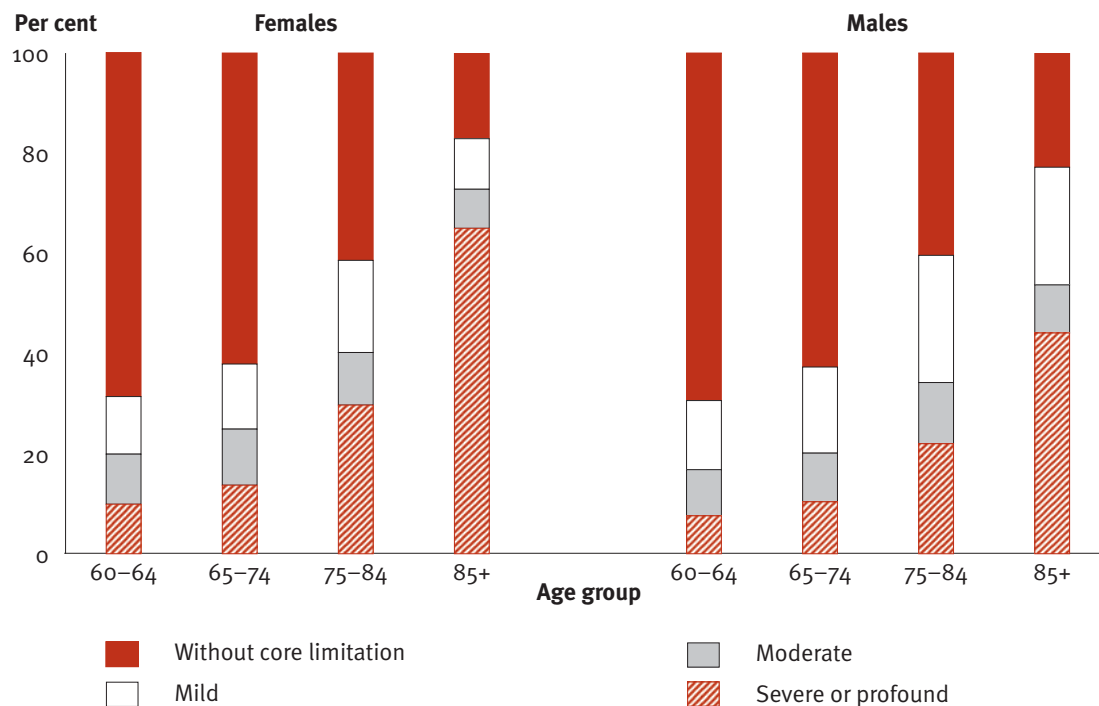
The presence of core activity limitations—which relate to difficulty or need for assistance in performing activities basic to daily living (self-care, mobility or communication)—is a useful indicator of the extent to which people are likely

to need some form of support (whether from a person or from modifications to the environment) in their daily life. These limitations range from mild or moderate, where assistance is not required but difficulty in performing core activities may be experienced or aids and equipment may be used, to severe and profound, where assistance is sometimes or always needed. Having a disability does not necessarily imply a need for assistance—for example, people may experience breathing difficulties which restrict the type and amount of physical activity they can undertake, but they do not need help or supervision with daily living activities.

Among older people with a disability, only 41% had a profound or severe limitation (derived from Table A17.1). A small proportion of older people with a disability have no core activity limitation (10%), and the remainder need no help with core activities although they may experience some difficulty with them or use aids and equipment. They may also experience difficulty with other activities such as using public transport (ABS 2004b). People with a severe or profound core activity limitation are those most likely to be in need of assistance from informal carers and aged care programs.

Almost one-quarter (23%) of all people aged 65

**Figure 17.1: Proportion with core activity limitation, by age and sex, 2003**



Source: Table A17.1.

years and over had a profound or severe core activity limitation in 2003 (Table A17.1). The severity of disability increases markedly with age, from 9% of those aged 60–64 years to 58% of those aged 85 years and over (Figure 17.1). Differences between males and females are mainly in the form of the severity of disability and reflect the older age structure of the female population aged 60 years and over—a higher proportion of women have a severe or profound core activity limitation (27% compared with 17%).

## Disability and health conditions

Disability and its components (activity limitations, impairments etc.) are related to health conditions, environmental factors and personal factors (see AIHW 2005b:Figure 5.1). The relationship between health conditions and disability can be looked at in a number of ways. One way is by examining health conditions most likely to be associated with profound or severe core activity limitation. Among people aged 65 years and over, dementia is prominent as the health condition most likely to be associated with a severe or profound core activity limitation—98% of those with dementia identified through the Australian Bureau of Statistics (ABS), 2003 Survey of Disability, Ageing and Carers (SDAC) (97,300 people) reported a severe or profound core activity limitation (Table A17.2). Other highly disabling conditions were problems with speech (87% have a severe or profound core activity limitation), and Parkinson's disease (79%).

Another way of looking at the relationship between disability and health condition is to ask the question 'When looking at profound or severe limitation in the population, which are the most common associated diseases or conditions?' A different picture emerges here which is related to the prevalence of the health condition.

Among the 560,900 older Australians with a profound or severe limitation in 2003, arthritis was the most common health condition, affecting 50% of older people with a profound or severe core activity limitation (Table A17.2). Hearing disorders (43%), hypertension (38%), heart diseases (30%) and stroke (23%) were also common conditions among older people with a profound or severe disability. For each of these conditions, its prevalence in the population combined with its likelihood of being associated with a profound or severe core activity limitation leads to considerable burden on the community. For example, 10% of people aged 65 years and over reported a stroke and half of these reported a profound or severe core activity limitation, meaning that 126,200 older people had both a stroke and a profound or severe limitation. Conditions such as dementia and Parkinson's disease, although highly likely to be related to profound or severe core activity limitations, were less common as they were generally less prevalent in the population.

Each condition in Table A17.2 is relatively more common among older people with a profound or severe core activity limitation than among the general older population, with the exception of high cholesterol and hypertension (high blood pressure). For example, the prevalence of dementia and Alzheimer's disease was 17% among older people with a profound or severe core activity limitation compared with 4% among the older population in general.

Table A17.2 also shows the proportion of people for whom the selected health condition is considered to be their main disabling condition. The leading health conditions on this measure for people aged 65 years and over were dementia (68%) and Parkinson's disease (67%). The next group of health conditions which people reported as a main disabling condition were arthritis (48%), leg, knee, foot or hip damage from injury or accident (46%), back problems (45%) and cancer (42%).

**Table 17.1: Average number of health conditions, by disability status and age group, 2003**

Disability status	0–64	65 & over	Total
Profound	3.02	4.85	4.13
Severe	2.93	4.42	3.39
Moderate	3.10	4.18	3.50
Mild	2.58	3.31	2.88
Disability, no limitations or restrictions	1.79	2.78	2.03
Total with a disability	2.56	3.98	3.06
Total with any health condition	1.90	3.27	2.27
<b>Total population</b>	<b>0.65</b>	<b>2.84</b>	<b>0.93</b>

Source: AIHW 2005b:Table A5.6.



The presence of multiple health conditions tends to be associated with more severe disability (AIHW 2005b: Table A5.6). In 2003, the average number of health conditions for people aged 65 years and over was 2.84, but older people with a profound core activity limitation had an average of 4.85 health conditions and people with any health condition (with or without disability) had an average of 3.27 conditions (Table 17.1). Older age groups had higher average numbers of health conditions across all categories of disability status.

Table A17.2 also shows the average number of health conditions for people aged 65 years and over according to selected health conditions. Older people with depression reported the highest mean number of health conditions (5.5 conditions), followed by those with phobic and anxiety disorders and dementia (5.3 conditions), those with nervous tension/stress and head injury/acquired brain damage (5.1 conditions) and leg, knee, foot or hip damage from injury or accident and stroke (4.9 conditions).

An important caveat on health condition data from the ABS SDAC is that the survey relies on self-identification of health conditions, which can result in misreporting, particularly when conditions are in their mild or moderate stage or have not yet been diagnosed (e.g. dementia). This can lead to underestimation of the prevalence of some conditions when compared with prevalence estimates based on clinical assessment.

## Disability and incontinence

Incontinence is not included as a long-term health condition in the 2003 SDAC Confidentialised Unit Record File (CURF). The symptoms of incontinence can result in a severe impact on an individual's quality of life and their ability to participate in many life areas. People who experience incontinence are identified in the SDAC from questions on need for assistance with managing bladder or bowel control and the use of continence aids (AIHW 2006b). In 2003, an estimated 128,300 people with disability always needed assistance with bladder or bowel control—about 71% of this group (90,900) were aged 70 years and over (derived from AIHW 2006b: Tables 4.1 and 4.2). A further 101,300 people with disability sometimes needed assistance with bladder or bowel control, of whom 59% (59,800) were aged 70 years and over. The majority (72%) of the 150,700 people with disability aged 70 years and over who sometimes or always needed such assistance lived in cared accommodation.

## Life expectancy and disability

Growing life expectancy has been accompanied by the hope that extra years of life are spent in good health and without disability. Evidence from some overseas countries (notably the United States) during the 1990s had suggested that disability rates among older populations were declining (e.g. Schoeni et al. 2001; Waidmann & Manton 1998). A more recent OECD study which focused on trends in severe disability rates in 12 countries (including Australia) found mixed evidence (OECD: Lafortune et al. 2007). Rates of severe disability were declining in only five of the twelve countries; increasing rates were observed for three countries; rates were stable in two countries; and no conclusive trend was apparent for another two countries. Evidence for Australia suggests a relatively stable picture of severe disability rates over time in the older population (see AIHW 2001:201–3 for a discussion of this)—after age-standardisation there is virtually no change between the 1998 and 2003 Surveys of Disability, Ageing and Carers (ABS 2004b).

A recent analysis of Australian data over the 15-year period from 1988 to 2003 also suggests that a considerable proportion of additional years of life gained during this period are years of life spent with disability. Over this period, men's life expectancy at age 65 years increased by 1.5 years—of this gain, one additional year of life is spent with disability (67% of the gain) and 27% of the gain is life with disability and profound or severe core activity limitation. Older women increased their life expectancy at age 65 by 1.2 years—over 90% of the gain is estimated to be time spent with disability, and around 58% is likely to be time spent with disability and profound or severe limitation (AIHW 2006e).

Even though underlying age-specific prevalence rates of disability appear relatively stable, the ageing of the Australian population and the greater longevity of individuals are leading to more people, especially at older ages, with a disability and a severe or profound core activity limitation. Any increase in these numbers has important implications for service providers, planners and policy analysts. Assuming the continuation of current disability prevalence rates, the number of older people in this category is projected to rise by almost 100% over the next two decades—from an estimated 560,900 in 2003 to 1,116,200 in 2023.



Throughout this report various measures have been used to describe the impact of particular diseases on the health of older Australians, such as numbers and rates of disease prevalence, disability and death. A measure called disability-adjusted life years (DALYs) has been developed under the auspices of the World Bank and the World Health Organization to summarise the burden of disease, combining data on both fatal and non-fatal disease outcomes—this has been adapted by the AIHW for the Australian context. It has the advantage of identifying those health problems that cause much illness and disability even if they are not often fatal (such as dementia) and also conditions that may not cause many deaths but, when they do, those deaths occur among younger people.

The ‘burden of disease’ is a measure of the amount of ill health, disability and premature death caused by individual disease or health conditions. Measured by the DALYs (Box 18.1), it is the years of healthy life lost through living with a disability owing to illness or injury, or through premature death (Begg et al. 2007).

### Box 18.1: Disability-adjusted life years

*DALYs for a disease or health condition are calculated as the sum of the years of life lost owing to premature death (YLL) in the population and the years lost owing to disability (YLD) for incident cases of the health condition:*

$$DALYs = YLL + YLD$$

where  $YLL = \text{number of deaths} \times \text{standard life expectancy at age of death and}$

$YLD = \text{incidence} \times \text{duration} \times \text{severity weight.}$

*The loss of healthy life owing to health conditions (YLD) requires estimation of the incidence of the disabling health condition (disease or injury) in the specified time period. For each new case, the number of years of healthy life lost is obtained by multiplying the average duration of the condition (to remission or death) by a severity weight that quantifies the equivalent loss of healthy years of life owing to living with the health condition or its sequelae.*

The DALY methodology provides a useful way to link information on disease occurrence to information on both short-term and long-term health outcomes, including activity limitations and restrictions in participation in usual roles, and death. Results are given for older Australians aged 65–74 years and 75 years and over.

## Older Australians aged 65–74

Adults aged 65–74 years made up 7% of the total population and experienced 16% of the total burden of disease and injury in Australia in 2003 (Begg et al. 2007). Cancer and cardiovascular diseases accounted for over half of the total burden in this age group (Figure 18.1). Females experienced a greater share of the burden than males from musculoskeletal conditions, but the reverse was true for all other broad cause groups. Overall, 60% of the burden in this age group was due to death.

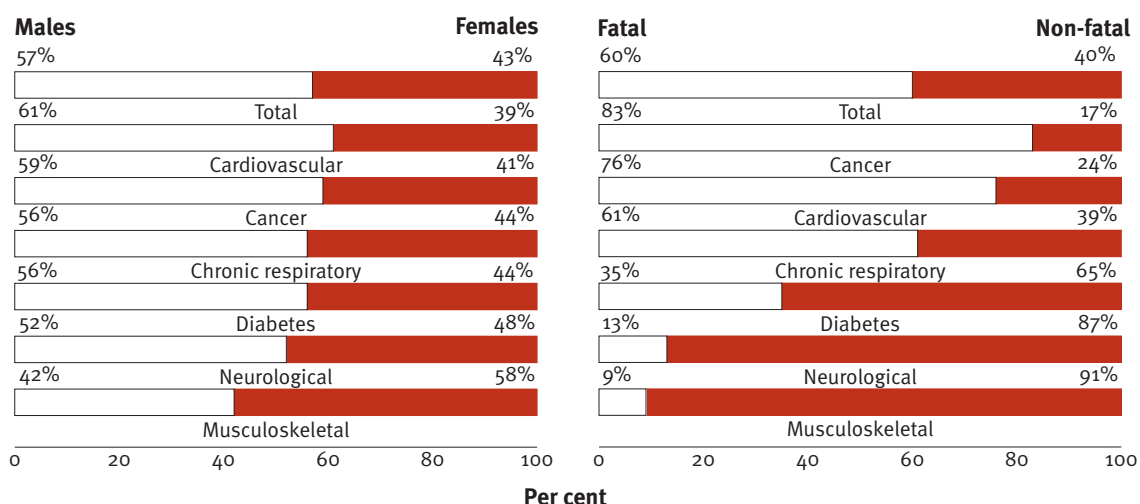
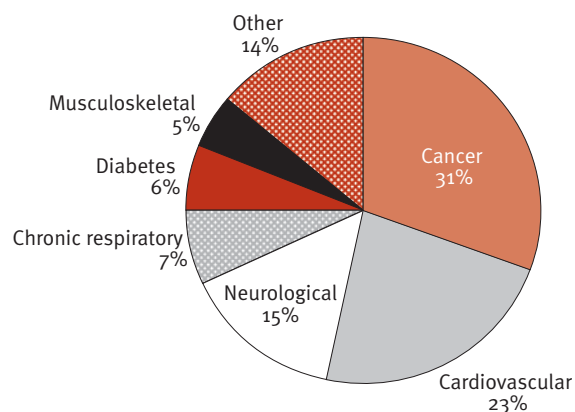
Ischaemic heart disease, lung cancer and Type 2 diabetes were the leading causes of burden in males, together accounting for 29% of total male burden (Table 18.1). In females, ischaemic heart disease, Type 2 diabetes and breast cancer were the leading causes, accounting for 23% of total burden. The top ten conditions accounted for 56% of total burden in this age group.

## Older Australians aged 75 and over

Older people aged 75 years and over made up 6% of the total population and experienced 25% of the total burden in Australia in 2003 (Begg et al. 2007). Cardiovascular diseases and cancer accounted for over half of the total burden in this age group (Figure 18.2). Females experienced a greater share of the burden than males overall and for all broad cause groups except chronic respiratory diseases and cancer. Overall, 68% of the burden in this age group was due to death.

Ischaemic heart disease, stroke and dementia were the leading causes of burden in males, together accounting for 34% of total male burden (Table 18.2). In females, ischaemic heart disease, dementia and stroke were the leading causes, accounting for 42% of total burden. The top ten conditions account for 61% of the total burden in this age group.

**Figure 18.1: Burden (DALYs) in 65–74 year olds by broad cause group expressed as: (a) proportions of total, (b) proportions by sex, and (c) proportions due to fatal and non-fatal outcomes, Australia, 2003**



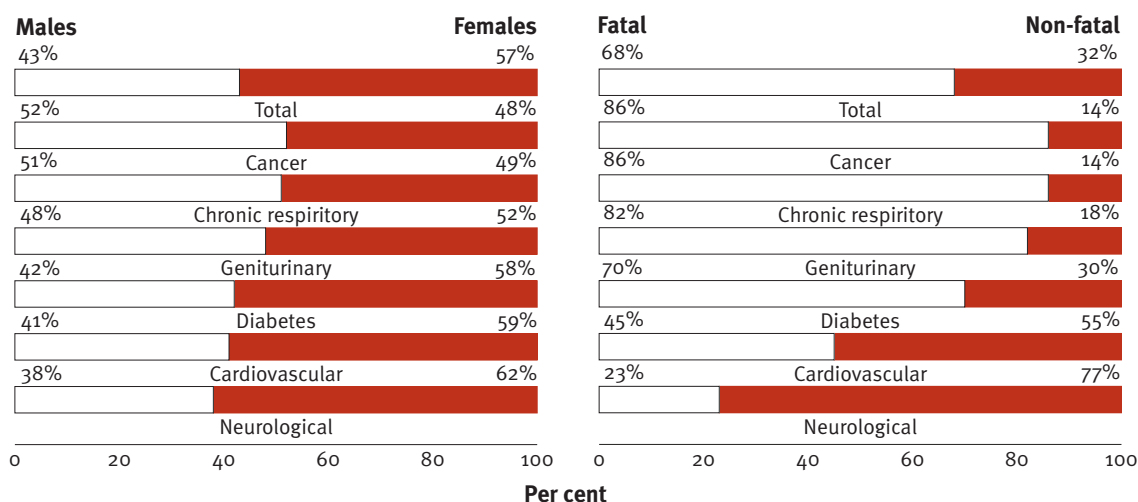
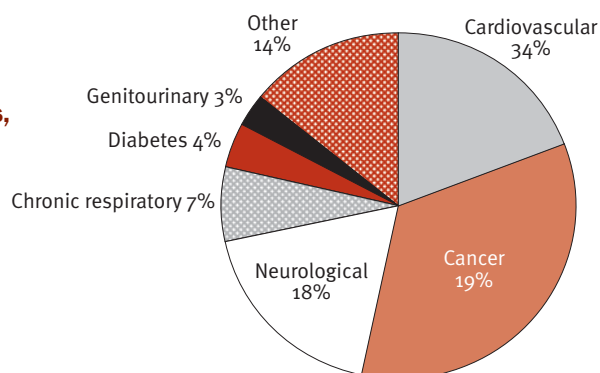
Source: Begg et al. 2007

**Table 18.1: Leading causes of DALYs in 65–74 year olds, by sex, Australia, 2003**

Rank	Males	DALYs	Per cent of total	Females	DALYs	Per cent of total
1	Ischaemic heart disease	37,860	15.5	Ischaemic heart disease	21,052	11.4
2	Lung cancer	19,258	7.9	Type 2 diabetes	11,517	6.2
3	Type 2 diabetes	14,203	5.8	Breast cancer	10,445	5.7
4	Prostate cancer	11,950	4.9	Dementia	10,236	5.5
5	Adult-onset hearing loss	11,920	4.9	Lung cancer	9,937	5.4
6	COPD <sup>(a)</sup>	11,693	4.8	Stroke	9,635	5.2
7	Stroke	10,938	4.5	COPD <sup>(a)</sup>	8,855	4.8
8	Colorectal cancer	10,531	4.3	Colorectal cancer	7,513	4.1
9	Dementia	7,872	3.2	Osteoarthritis	6,088	3.3
10	Parkinson's disease	3,958	1.6	Adult-onset hearing loss	5,834	3.2

(a) Chronic obstructive pulmonary disease.

**Figure 18.2: Burden (DALYs) in those aged 75 and over by broad cause group expressed as: (a) proportions of total, (b) proportions by sex, and (c) proportions due to fatal and non-fatal outcomes, Australia, 2003**



Source: Begg et al. 2007.

**Table 18.2: Leading causes of DALYs in those aged 75 and over, by sex, Australia, 2003**

Rank	Males	DALYs	Per cent of total	Females	DALYs	Per cent of total
1	Ischaemic heart disease	55,680	19.3	Ischaemic heart disease	70,853	18.7
2	Stroke	21,834	7.5	Dementia	46,984	12.4
3	Dementia	21,095	7.3	Stroke	39,830	10.5
4	Prostate cancer	15,484	5.4	Type 2 diabetes	15,330	4.1
5	COPD <sup>(a)</sup>	14,900	5.2	COPD <sup>(a)</sup>	13,318	3.5
6	Lung cancer	13,533	4.7	Colorectal cancer	9,703	2.6
				Lower respiratory tract infections	9,137	2.4
7	Type 2 diabetes	11,262	3.9	Lung cancer	9,059	2.4
8	Colorectal cancer	8,442	2.9	Breast cancer	8,995	2.4
9	Adult-onset hearing loss	7,052	2.4	Falls	7,814	2.1
	Lower respiratory tract infections	6,395	2.2			

(a) Chronic obstructive pulmonary disease.

### Cardiovascular disease

Cardiovascular disease (also known as circulatory disease or 'heart, stroke and vascular diseases') covers all diseases and conditions of the heart and blood vessels. The main underlying causal mechanism in cardiovascular disease is atherosclerosis, a process marked by abnormal build-ups of fat, cholesterol and other substances in the inner lining of the arteries. It is most serious when it reduces or blocks blood supply to the heart (causing angina or heart attack) or to the brain (causing a stroke) (AIHW 2006c).

Even in the absence of disease, however, the heart undergoes physiological change as a person ages. The heart muscles may relax less between beats and become stiffer, and the heart may not pump blood as efficiently as it once did. The older heart may become less responsive to stimulation by the nervous system, and it cannot increase the strength or rate of its contractions during exercise as well as it could in youth. The walls of the arteries tend to lose their elasticity and stiffen, which may lead to a form of systolic hypertension. The reflex that maintains blood pressure when standing up may become slower. A decline in

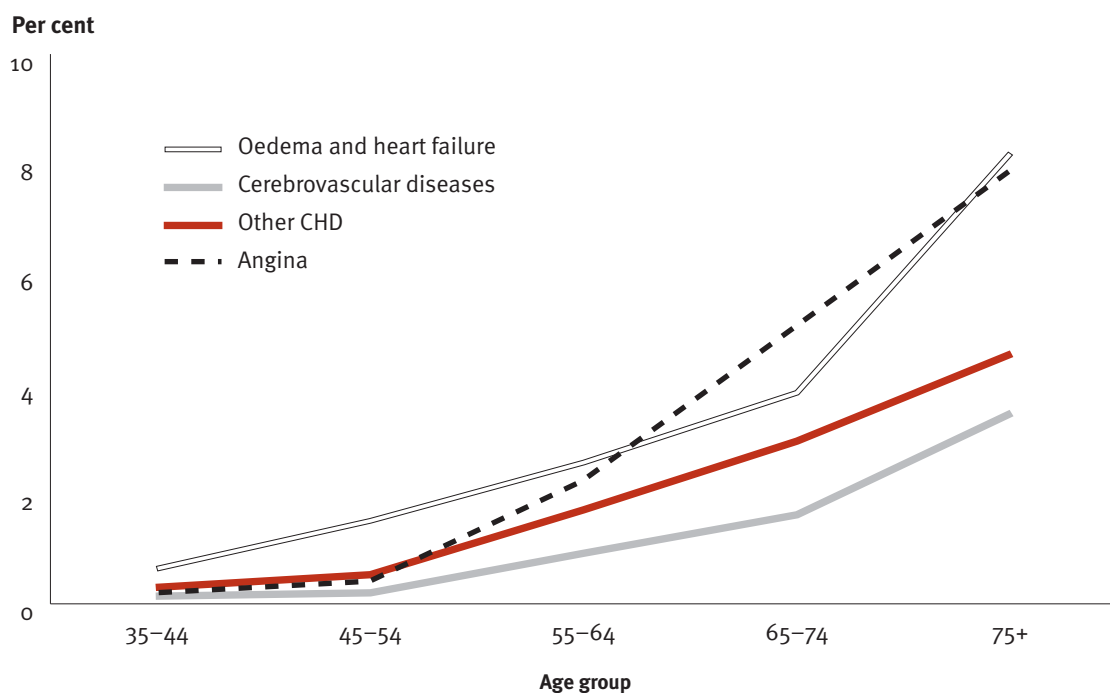
these functions with age may occur with other heart conditions such as atherosclerosis and compound their effect and treatment.

Cardiovascular problems in older age may affect quality of life, length of life, or both. Of these diseases, coronary heart disease (CHD), stroke, heart failure and peripheral vascular disease are major contributors to the disease burden in Australia and have their greatest impact among older Australians. Cardiovascular disease is a National Health Priority Area in Australia.

### Coronary heart disease

CHD, also known as ischaemic heart disease, is the most common form of heart disease. There are two major clinical forms, heart attack (often known as acute myocardial infarction or AMI) and angina. A heart attack is a life-threatening event that occurs when a blood vessel supplying the heart itself is suddenly blocked completely, threatening to damage the heart and its functions. An angina attack is temporary chest pain or discomfort that occurs when the heart's own blood supply is inadequate to meet extra needs, as in exercise.

**Figure 19.1: Prevalence of selected cardiovascular diseases, by age, 2004–05**



Source: ABS 2006r, see also TableA19.1.

The prevalence of CHD increases with age (Figure 19.1, Table A19.1). In 2004–05, 2.2% of Australians aged 55–64 years had angina as a long-term (recurrent) condition, the proportion increasing to 7.8% among those aged 75 years and over (based on self-report) (ABS 2006r). Similarly, the prevalence rate for other forms of CHD rose from around 1.7% for people aged 55–64 to 4.5% for those aged 75 years and over. This equates to around 153,000 older Australians (aged 65 years and over) with angina as a long-term condition and 89,500 with another form of CHD (note that a person may report more than one disease).

In 2004–05, there were 162,277 hospital separations where CHD was the principal diagnosis, of which 97,100 (60%) were for older Australians (Table A19.2). Of these, angina accounted for around half and heart attack for around one-quarter. Hospitalisation rates for CHD increased rapidly with age (Figure 19.2). The CHD hospitalisation rate among older Australians increased by more than 10% over the past decade, during which time there were changes in diagnostic technology, changes in treatment regimes and reductions in deaths.

CHD is one of the major causes of disability among older Australians. In 2003, 166,900 older people with coronary heart disease had a disability and 22% (37,200) of these had coronary heart disease as their main disabling condition. Of these, 32% (11,800) had a severe or profound core activity limitation, meaning that they needed help with self-care, mobility and communication (AIHW analysis of the 2003 ABS Survey of Disability, Ageing and Carers).

CHD is the largest single cause of death in Australia, accounting for 21,570 deaths among older Australians in 2004, with 83% of these occurring among people aged 75 years and over (Figure 19.3, Table A19.3). In 2004, the CHD death rate among older men was nearly 1.5 times that for older women. CHD death rates have fallen rapidly since the 1970s. The declines are likely to be due to a reduction in heart attacks and to better survival resulting from improvements in treatment.

## Cerebrovascular disease

Cerebrovascular disease refers to any disorder of the blood vessels supplying the brain and its covering membranes. Most cases of cerebrovascular death are due to stroke. Stroke occurs when a blood vessel to the brain is suddenly blocked or bleeds. This may result in part of the brain dying because of the lack of blood, leading to a loss of brain function or impairment in a range of activities including movement, thinking

and communication. Blockage is the most common cause of stroke. There can also be temporary strokes (where symptoms disappear within 24 hours), known as transient ischaemic attacks.

Based on self-reports from the 2004–05 National Health Survey, about 0.5% of Australians (90,800) had cerebrovascular disease and 66% (59,600) were aged 65 and over (ABS 2006r). Prevalence rates were higher among older men than older women and increased rapidly with age to 3.5% among Australians aged 75 years and over (Figure 19.1, Table A19.1). Based on the 2003 Survey of Disability, Ageing and Carers, which includes people in hospital, residential aged care and other non-private dwellings, 252,800 older Australians aged 75 and over were victims of a stroke.

In 2004–05, there were 40,718 hospital separations where cerebrovascular disease was the principal diagnosis, of which 30,100 (74%) were for older Australians (Table A19.2). Rates increased rapidly with age (Figure 19.2). The hospitalisation rate for cerebrovascular disease among older Australians decreased by about a third over the past decade, during which time death rates also fell markedly.

Stroke is one of the most disabling long-term health conditions among older people. In 2003, 213,200 older people with a history of stroke had a disability and 25% (52,700) of these had stroke as their main disabling condition. Of these, 76% (40,200) had a severe or profound core activity limitation, meaning that they always or sometimes needed assistance with self-care, mobility and communication. Stroke survivors with a disability were much more likely to have a severe or profound core activity limitation than the average person with a disability (AIHW: Senes 2006).

Cerebrovascular disease accounted for 11,266 deaths among older Australians in 2004, with 89% of these occurring among people aged 75 years and over (Figure 19.3, Table A19.3). More females than males (6,886 compared with 4,380) aged 65 years and over died of cerebrovascular disease. However, the age-standardised death rate was slightly higher among males, reflecting the high number of deaths among males in the (relatively) younger age groups. There was no downward trend in the death rates for cerebrovascular disease between 1950 and 1975; however, consistent declines have occurred for both males and females since then.

## Heart failure

Heart failure occurs when the heart functions less effectively in pumping blood around the body. It can result from a variety of diseases and conditions that impair or overload the heart, notably heart attack, high blood pressure or a damaged heart valve. People with mild heart failure may have few symptoms, but in more severe cases it can result in chronic tiredness, reduced capacity to undertake physical activity, and shortness of breath.

Based on self-reports from the 2004–05 National Health Survey, about 1.3% of Australians (263,000) had heart failure (including oedema) of which 54% (141,000) were aged 65 years and over. Prevalence rates were higher among older women than older men and increased with age to 8.2% among Australians aged 75 years and over (Figure 19.1, Table A19.1).

In 2004–05, there were 41,321 hospital separations where heart failure was the principal diagnosis, of which 35,900 (87%) were for older Australians (Table A19.2). Again, rates increased rapidly with age (Figure 19.2). The hospitalisation rate for heart failure fell in Australia between 1996 and 2004 (Najafi et al. 2007).

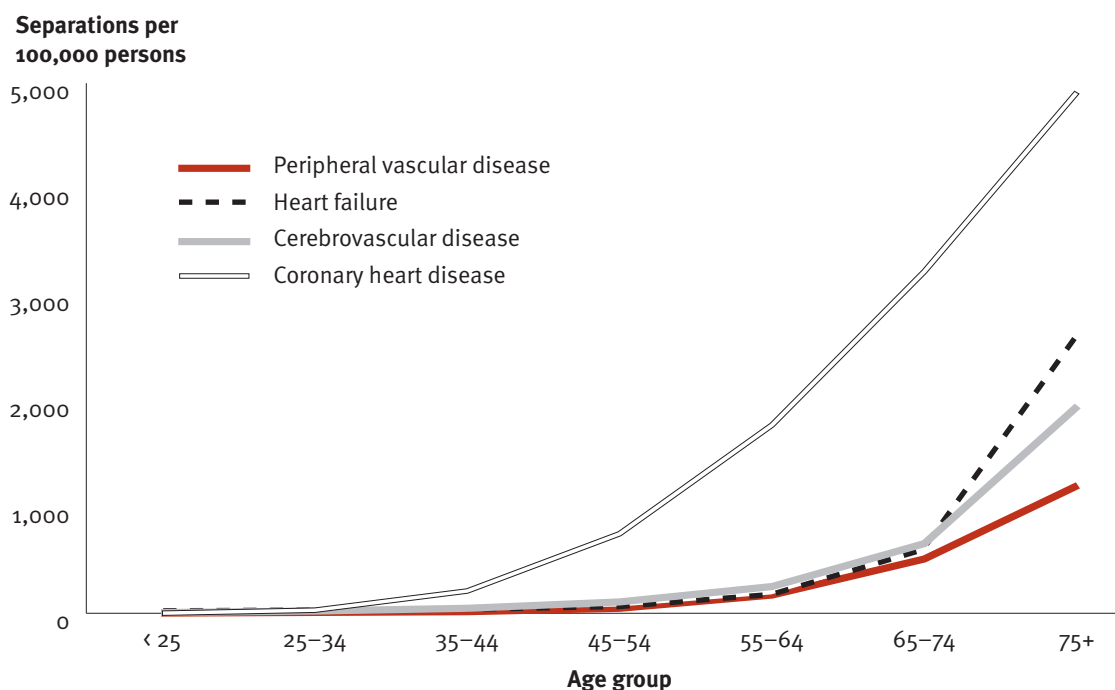
Heart failure accounted for 2,210 deaths of people

aged 65 and over in 2004, with 93% of these occurring among people aged 75 years and over (Figure 19.3, Table A19.3). More females than males (1,371 compared with 839) aged 65 years and over died of heart failure. The condition is more likely to be listed as an associated cause of death than as the underlying cause. It occurs frequently as an associated cause when the underlying cause of death is kidney failure, CHD, diabetes or chronic lower respiratory disease.

## Peripheral vascular disease

Peripheral vascular disease refers to diseases of the arteries outside the heart and brain. It occurs when fatty deposits build up on the inner walls of these arteries and affect blood circulation, mainly in the arteries leading to the legs and feet. It ranges from asymptomatic disease, through pain on walking, to pain at rest and limb-threatening reduced blood supply that can lead to amputation. A major form of peripheral vascular disease is abdominal aortic aneurysm (the main artery leading from the heart) below the level of the diaphragm. These aneurysms can be life-threatening if they rupture, so surgery is performed in severe cases.

**Figure 19.2: Hospital separations for selected cardiovascular diseases, by age, 2004–05**



Source: AIHW National Hospital Morbidity Database, see Table A19.2.



In 2004–05, there were 25,682 hospital separations where peripheral vascular disease was the principal diagnosis, of which 20,000 (78%) were for older Australians (Table A19.2). Again, rates increase rapidly with age (Figure 19.2). The hospitalisation rate for peripheral vascular disease among older Australians increased by more than 20% over the past decade, and coincided with increased hospitalisation rates for CHD and heart failure, decreased rates for stroke, and large declines in deaths from peripheral vascular disease over the same period.

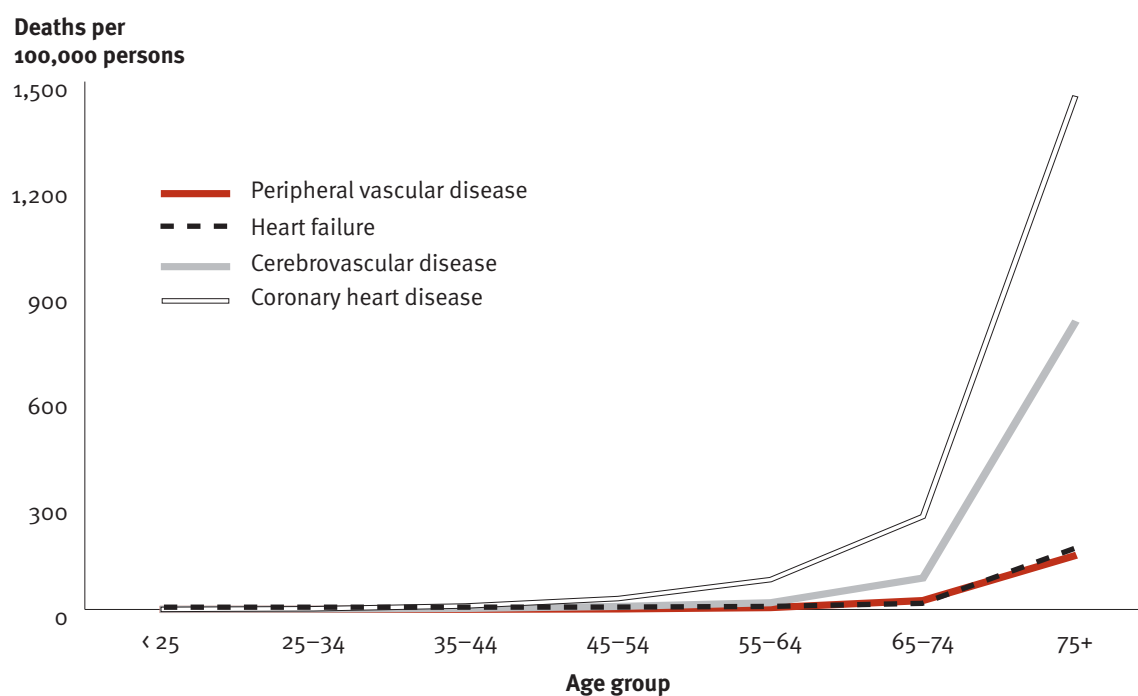
Peripheral vascular disease accounted for 2,233 deaths for people aged 65 and over in 2004, with 84% of these occurring among people aged 75 years and over (Table A19.3). In 2004, older males were more likely to die from peripheral vascular disease than older females. The major cause of death in people with peripheral vascular disease is CHD, reflecting the generalised nature of the disease process.

and diabetes. Atrial fibrillation, transient ischaemic attack and a high intake of alcohol also increase the risk of stroke. Some of these risk factors are discussed in Topic 16: *Ageing and health risk factors*.

## Risk factors

The major preventable risk factors for these cardiovascular diseases are tobacco smoking, high blood pressure, high blood cholesterol, insufficient physical activity, overweight and obesity, poor nutrition

**Figure 19.3: Deaths from selected cardiovascular diseases, by age, 2004**



Source: AIHW National Mortality Database, see Table A19.3.

Cancer is a diverse group of diseases in which some of the body's cells become defective, begin to multiply out of control, can invade and damage the tissue around them, and can also spread (metastasise) to other parts of the body to cause further damage. They are a large cause of death in Australia and also contribute much to morbidity and disability. The National Health Priority Area cancers are lung cancer, melanoma skin cancer, non-melanocytic skin cancers, cancer of the cervix, breast cancer, colorectal cancer, prostate cancer and non-Hodgkin's lymphoma.

Information on new cases of cancer is collected by state and territory cancer registries, and compiled by the AIHW at the National Cancer Statistics Clearing House (see Box 20.1).

### Incidence

Excluding non-melanocytic skin cancers, 52,994 new cases of cancer (31,441 males and 21,553 females) were diagnosed among older Australians in 2003 (AIHW 2007d). The incidence rate in 2003, of 2,076 cases per 100,000 older persons, is slightly lower than the incidence a decade earlier (2,147 cases per 100,000 older persons), but much higher than the rate two decades ago—1,712 cases per 100,000 older persons in 1983 (Table 20.1).

Much of the increase in the incidence of cancer in the decade between 1983 and 1993 may be attributed to better diagnostic techniques, opportunistic screening

#### Box 20.1: Cancer surveillance and monitoring in Australia

*The registration of cancer is required by law in each of the states and territories, usually under the Public Health Acts, where the data are collated by cancer registries. These registries collect clinical and demographic information about people with newly diagnosed cancer from hospital, pathology, radiotherapy and physicians records.*

*All state and territory cancer registries supply records of all new cases of cancer (since 1982), excluding non-melanocytic skin cancers, to the National Cancer Statistics Clearing House (NCSCH). The NCSCH is operated by the AIHW under the supervision of the Australasian Association of Cancer Registries (AACR). Both the Australian Institute of Health and Welfare Act and Australian Government privacy law provide for the protection of confidentiality of records supplied to the NCSCH. In addition to generating national statistics, the NCSCH enables data to be released to researchers after a strict scientific and ethical review process which involves the AACR executive, the AIHW Ethics Committee, and the state and territory cancer registries.*

and the establishment of organised screening programs. There were large increases in the diagnosis of prostate cancer, the most common cancer in males, mainly because of the introduction of prostate-specific antigen

**Table 20.1: Incidence of selected cancers in older Australians, 1983, 1993 and 2003**

Type of cancer	New cases			Incidence rates <sup>(a)</sup>		
	1983	1993	2003	1983	1993	2003
All cancers (C00–C96 <sup>(b)</sup> , D45–D47 <sup>(c)</sup> )	25,204	43,141	52,994	1,711.6	2,146.9	2,075.7
NHPA cancers						
Colorectal cancer (C18–C20)	4,255	6,283	8,420	293.0	315.0	329.8
Prostate cancer (C61, males)	3,149	9,278	9,320	579.1	1126.1	831.9
Lung cancer (C33–C34)	3,492	4,974	5,802	226.0	243.0	227.8
Breast cancer (C50, females)	2,113	3,447	4,260	241.0	295.4	302.3
Melanoma (C43)	1,029	2,544	3,935	66.3	124.8	154.4
Non-Hodgkin lymphoma (C82–C85, C96)	760	1,401	2,012	51.3	70.0	78.7
Cervical cancer (C53, females)	244	259	188	26.8	22.0	13.1

(a) Incidence rates, given as number of new cases per 100,000 persons, were age-standardised to the 2001 Australian population.

(b) Excludes non-melanocytic skin cancer C44.

(c) Only includes D47.1 & D47.3.

Source: National Cancer Statistics Clearing House, AIHW.

testing. Similarly, for breast cancer, the most common cancer in females, the introduction of the national mammographic screening program (BreastScreen Australia) has improved detection of small-diameter breast cancers and may have contributed to those large increases (AIHW & National Breast Cancer Centre 2006; AIHW & Department of Health and Ageing 2007). Cancer incidence is higher among males than among females (Figure 20.1). Major contributors to this higher incidence are smoking-related cancers, melanoma and mesothelioma that have their origins up to 35 years earlier, in the higher smoking rates among males, and their higher exposure to the sun and to asbestos. In 2003, there were 5,133 new cases of smoking-related cancers among older males compared with 2,214 among older females; 2,470 new cases of melanoma among older males compared with 1,465 among older females; and 385 new cases of mesothelioma among older males compared with 76 among older females (AIHW 2007d).

The number of new cases of cancer among older Australians in 2003 (52,994) is a 23% increase on 1993. With the ageing of the population, the number of new cases of cancer among older people will increase over future decades, even if incidence rates remain relatively unchanged.

The current risk of a diagnosis of cancer in Australia by age 75 is 1 in 3 for males and 1 in 4 for females. The risk increases to 1 in 2 for males and 1 in 3 for females by the age of 85.

## Most common cancers

Prostate cancer is the most commonly registered cancer in older males, with 9,320 cases diagnosed in 2003. It is followed by colorectal cancer (4,517 new cases), lung cancer (3,800) and melanoma (2,470). Together these four cancers accounted for 64% of all registered cancers in older males in 2003. The average age of first diagnosis for males (of any age) in 2003 was 66, and the median age was 68.

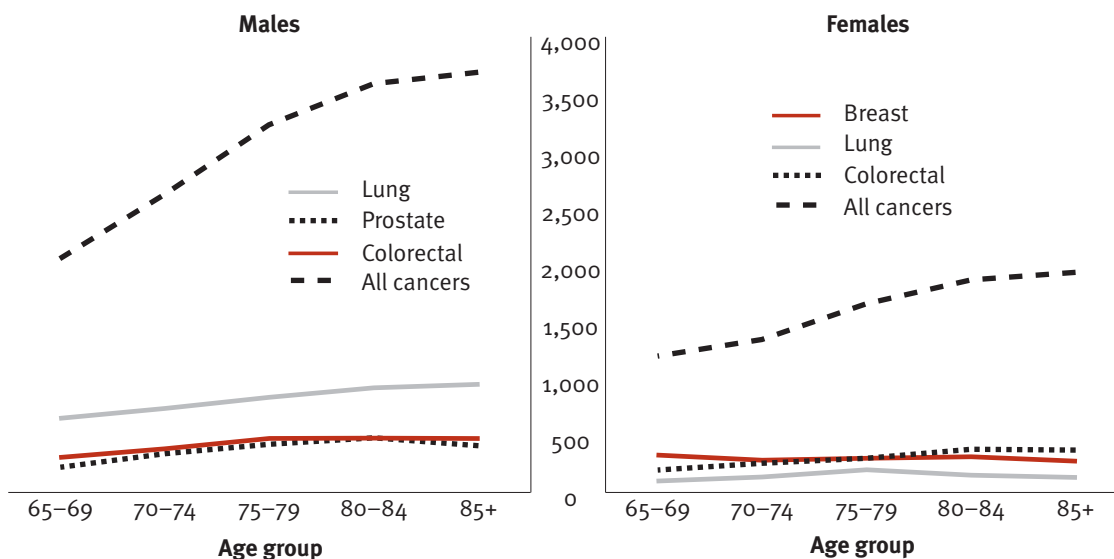
In older females, breast cancer (4,260 new cases in 2003) is the most commonly registered cancer, followed by colorectal cancer (3,903 new cases), lung cancer (2,002) and melanoma (1,465). These four cancers accounted in total for 54% of all registered cancers in older females in 2003. The average age of first diagnosis for females (of any age) in 2003 was 64, and the median age was 65.

Incidence rates by age and sex for the most common cancers are shown in Figure 20.1.

## Non-melanocytic skin cancers

Complete incidence data on non-melanocytic skin cancers are not routinely collected by state and territory cancer registries as they are not legally notifiable. Periodic national household surveys collect data to estimate incidence of these cancers, the most common being basal cell carcinoma and squamous

**Figure 20.1: Incidence rates per 100,000 people for all cancers, prostate, breast, colorectal and lung cancers, by age and sex, 2003**



Source: National Cancer Statistics Clearing House, AIHW; see Table A20.1.

cell carcinoma NCCI (2003). Among older Australians in 2002, there were an estimated 151,400 new cases of basal cell carcinoma and 80,100 new cases of squamous cell carcinoma, a total of 231,500. Older males accounted for 60% of basal cell carcinoma and 58% of squamous cell carcinoma cases.

## Prevalence of cancer

Compared with the other major chronic diseases, cancer has a relatively low prevalence. This is partly because the incidence is skewed to older age groups, and partly because the survival, duration and incidence rates for most cancers are much lower than for other chronic diseases such as cardiovascular disease, diabetes and mental disorders. However, cancers with relatively high survival rates (such as breast and prostate cancers) are much more prevalent in the population than those with a high fatality rate (such as lung cancer and mesothelioma).

Based on people reporting that they had been diagnosed by a doctor, an estimated 148,900 older persons living in private households in 2004 had a malignant cancer (0.2% of the older population) (ABS 2006r). A further 14,900 older persons had been diagnosed with a benign cancer or a cancer of uncertain nature. The overall self-reported prevalence of cancer among older Australians was 6.6%.

## Deaths from cancer

Cancer is a large cause of death. In 2004, there were 28,200 deaths from cancer among older Australians, which was 27% of all deaths in this age group (Table 20.2). Of these, 16,057 were male (31% of all male deaths in this age group) and 12,143 were female (22% of all female deaths in this age group). The average age at death was 71.4 years in males and 71.8 years in females.

The current risk of dying from a malignant cancer before the age of 75 is 1 in 8 for males and 1 in 11 for females. The risk of dying from cancer before the age of 85 is double these proportions: 1 in 4 for males and 1 in 6 for females.

The age-standardised death rate for all cancers fell from 1,125 per 100,000 older persons in 1984 to 1,071 per 100,000 older persons in 2004 (Table 20.2). The fall since 1984 in death rates from cervical cancer among older females reflects the National Cervical Screening Program which has been successful in detecting and treating pre-cancerous abnormalities. Death rates have also fallen for lung cancer, colorectal cancer and breast cancer. The death rate from melanoma increased during the period.

**Table 20.2: Trends in mortality, selected cancers for older Australians, 1984, 1994 and 2004**

Type of cancer	Number of deaths			Death rate <sup>(a)</sup>		
	1984	1994	2004 <sup>(d)</sup>	1984	1994	2004 <sup>(b)</sup>
All cancers (C00–C97 <sup>(c)</sup> , D45–D47 <sup>(d)</sup> )	16,599	23,905	28,200	1,125.1	1,187.1	1,071.2
<b>NHPA cancers</b>						
Lung cancer (C33–C34)	3,404	4,856	5,361	218.2	233.7	205.3
Colorectal cancer (C18–C20)	2,444	3,246	3,068	169.1	161.6	116.7
Prostate cancer (C61, males)	1,267	2,400	2,534	246.9	326.9	238.7
Breast cancer (C50, females)	1,103	1,435	1,477	123.9	121.1	98.3
Non-Hodgkin's lymphoma (C82–C85, C96)	479	949	1,122	31.8	47.2	42.6
Melanoma (C43)	257	507	728	16.8	24.9	27.6
Non-melanocytic skin cancers (C44)	167	264	325	12.5	13.5	12.2
Cervical cancer (C53, females)	160	157	110	17.9	13.2	7.1

(a) Death rates, given as number of deaths per 100,000 persons, were age-standardised to the 2001 Australian population.

(b) Mortality data for 2004 (the latest available) were extracted by year of registration. Data for 1984 and 1994 were extracted by year of death.

(c) Includes non-melanocytic skin cancer C44.

(d) Only includes D47.1 & D47.3.

Source: AIHW National Mortality Database.

Considerable levels of disability and poor quality of life are caused by diabetes. It is also associated with morbidity and premature death, especially if undetected or poorly controlled. If diagnosed at age 40 men will lose, on average, about 12 years of life and women about 14 years, compared with their non-diabetic peers (Narayan et al. 2003).

There are three main types of diabetes, each with different causes and clinical histories (Box 21.1). The underlying problem that causes Type 2 diabetes, the most common type of diabetes among older Australians, is insulin resistance, which increases with ageing, gaining weight or being sedentary (Chau et al. 2005).

Diagnosis and treatment of diabetes in older people is often complicated by the presence of physiological changes associated with ageing ADEA (2003). Care of older people with diabetes can be difficult because of co-morbidities, cognitive and functional disability, depression, frailty and social issues. When diabetes is under treated or poorly managed, then older people are likely to experience greater morbidity, disability and death as a result.

#### Box 21.1: Type of diabetes

*Diabetes mellitus (diabetes) is a metabolic disease in which high blood glucose levels result from defective insulin secretion, insulin action or both (WHO 1999). Insulin is a hormone produced by the pancreas that helps the body to use glucose. There are three main types of diabetes:*

- *Type 1 diabetes is marked by a total or near-total lack of insulin and results from destruction of insulin-producing cells in the pancreas. It is the most common type of childhood diabetes. People with this form of diabetes require daily insulin therapy to survive.*
- *Type 2 diabetes is marked by reduced levels of insulin or the inability of the body to use insulin properly (insulin resistance). It is more common among people aged 45 and over. It can be treated with oral hypoglycaemic (glucose-lowering) drugs, but some people may also need insulin therapy.*
- *Gestational diabetes is a form of diabetes that develops during pregnancy in some women. It is a marker of increased risk of developing Type 2 diabetes later in life.*

### Risk factors

Type 1 diabetes is believed to be caused by particular biological interactions and exposure to environmental agents among people genetically predisposed to diabetes (Atkinson & Eisenbarth 2001).

In addition to genetic predisposition and ageing, several modifiable risk factors play a role in the onset of Type 2 diabetes, including obesity, physical inactivity and poor nutrition. (AIHW 2002a). Further information on the prevalence of modifiable risk factors is given in Topic 15: *Healthy ageing*.

### Prevalence

There are two main sources of national diabetes prevalence data in Australia. The first is the 1999–2000 Australian Diabetes, Obesity and Lifestyle Study (AusDiab study), in which diabetes prevalence was estimated on the basis of measured blood glucose levels. The second is the ABS National Health Survey (NHS), in which prevalence estimates are based on self-reported information.

Measured data, such as those collected in the AusDiab study, provide more accurate estimates of the prevalence of diabetes than self-reported survey data. Diabetes prevalence derived from measured data can be estimated for both diagnosed and previously undiagnosed cases. The accuracy of self-reported data, such as those collected in the NHS, relies on respondents being aware of and accurately reporting their condition, and therefore will not include previously undiagnosed cases of diabetes. However, because the NHS is conducted regularly, it is able to provide more recent information and time series on the prevalence of diabetes over time.

Based on data from the AusDiab study, it has been estimated that nearly 19% (443,000) of older Australians had diabetes in 1999–00, many of whom were not aware that they had diabetes.

In 2004–05, based on self-reported data, 13% (333,200) of older Australians had been diagnosed with diabetes (Figure 21.1). Of these, 86% reported having Type 2 diabetes, 9% Type 1 diabetes, and 4% did not know which type of diabetes they had.

In the 15 years since 1989–90 the self-reported prevalence of diabetes in Australia has more than doubled for all people and for those aged 65 years and over, (Figure 21.2). Although a real increase in the incidence of diabetes may play a major role in this upward trend in diabetes prevalence, rising awareness in the community and better detection of the disease

may also contribute. Measured data also show a similar upward trend: the prevalence of diabetes estimated from the 1999–00 AusDiab study was more than double that estimated from the 1981 Busselton survey (Dunstan et al. 2002).

## Complications

Diabetes complications can arise quickly or develop over a number of years. Short-term complications are considered a medical emergency, and may lead to coma and death within a short period. These include a condition known as diabetic ketoacidosis, which can occur from a severe lack of insulin, and hypoglycaemia (low blood sugar), which is a complication of insulin treatment (AIHW 2002a).

Long-term complications include disease of large blood vessels (macrovascular disease) that leads to conditions such as coronary heart disease, stroke and peripheral vascular disease; and disease of small blood vessels (microvascular disease) that can cause chronic kidney disease, nerve damage and retinopathy (loss of vision).

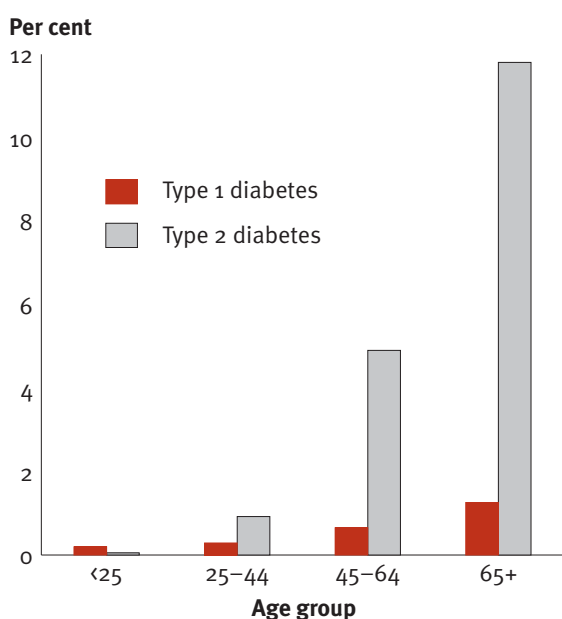
Hospitalisation rates for people with diabetic complications (neurological, ophthalmic and renal) increased with age (Figure 21.3). Ophthalmic complications were the most common for persons aged 65 years and over followed by renal and neurological complications.

## Hospitalisations

Among people aged 65 years and over, diabetes was the principal diagnosis for 40,018 separations in 2004–05 and an additional diagnosis for 279,735 separations; together these accounted for 13% of all hospital separations for older Australians in that year.

For persons aged 65 years and over, 47% of hospital separations for diabetes as the principal diagnosis were for eye complications (ophthalmic), 13% for multiple complications, 12% for other specified complications of diabetes, 9% for circulatory complications, 8% for renal complications and 7% for poor control.

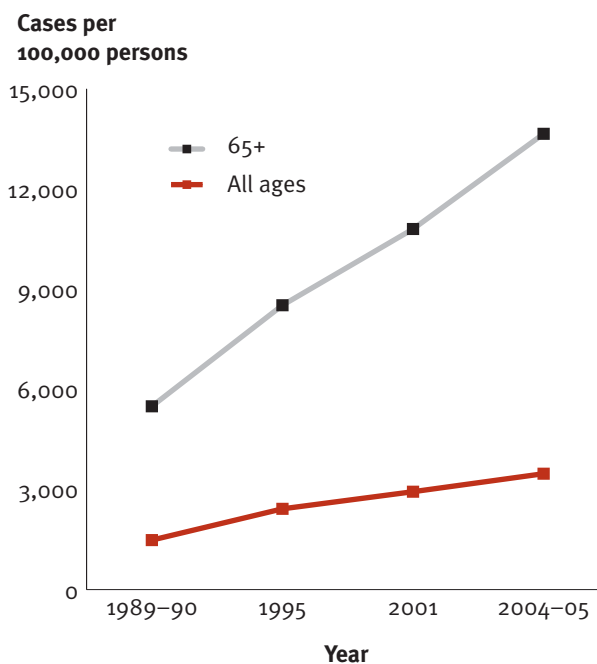
**Figure 21.1: Age-specific prevalence of diabetes, 2004–05**



Note: Based on self-reported data.

Source: ABS 2006r, see also Table A21.1.

**Figure 21.2: Prevalence of diabetes (self-reported), 1989–90 to 2004–05**



Notes

1. Age-standardised to the 2001 Australian population.

2. Based on self-reported data.

Sources: AIHW analysis of the 1989–90, 1995 and 2001 ABS National Health Surveys; ABS 2006r, see also Table A21.2.



## Disability

In 2003, 203,200 older people with diabetes had a disability and 22% (45,400) of these had diabetes as their main disabling condition. Of these, 29% (13,100) had a severe or profound core activity limitation, meaning that they always or sometimes needed assistance with self-care, mobility and communication (2003 ABS Survey of Disability, Ageing and Carers).

## Deaths

A total of 10,203 deaths in Australia in 2004 were related to diabetes among people aged 65 years and over. Diabetes was listed as the underlying cause of 3,096 of these deaths (3% of all deaths among people aged 65 years and over) and as an associated cause in 7,107 deaths (7% of all deaths in this age group).

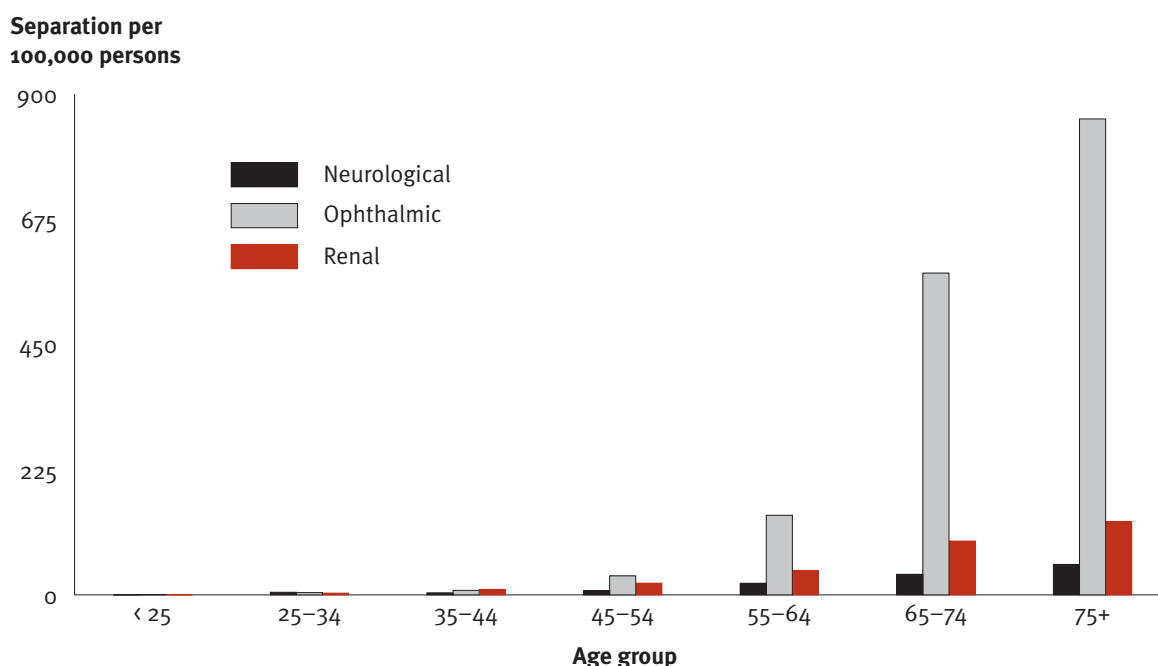
Where diabetes was the underlying cause of death, the most commonly listed associated causes of death for people aged 65 years and over were 'other cardiovascular disease' (27%), coronary heart disease

(21%) and stroke (8%). Where diabetes was listed as an associated cause of death in people aged 65 years and over, coronary heart disease was listed as the underlying cause of death in 31% of cases, neoplasms in 23% of cases and stroke in 11% of cases.

Although there has been an increase in the prevalence of diabetes in the population, the age-standardised death rate for diabetes as the underlying cause of death was stable for males and slightly decreased for females over the period 1997–2004.

There is some evidence of improved long-term survival for people with Type 1 diabetes, consistent with the introduction of glycosylated haemoglobin (HbA1C) testing, home blood glucose monitoring and improved blood pressure therapy (Nishimura et al. 2001).

**Figure 21.3: Rate of hospitalisation for persons with diabetic complications, by age, 2004–05**



Note: Age-standardised to the 2001 Australian population.

Source: AIHW analysis of 2004–05 National Hospital Morbidity Data, see also Table A21.3.

Respiratory diseases place significant demands on the health care system and are a considerable financial burden for the individual and the community (AIHW 2005c). This section looks at two chronic respiratory diseases that are particularly relevant to older Australians, namely chronic obstructive pulmonary disease (COPD) and asthma. Asthma is a National Health Priority Area in Australia. Acute respiratory infections, which include influenza and pneumonia, are also considered.

### Chronic obstructive pulmonary disease

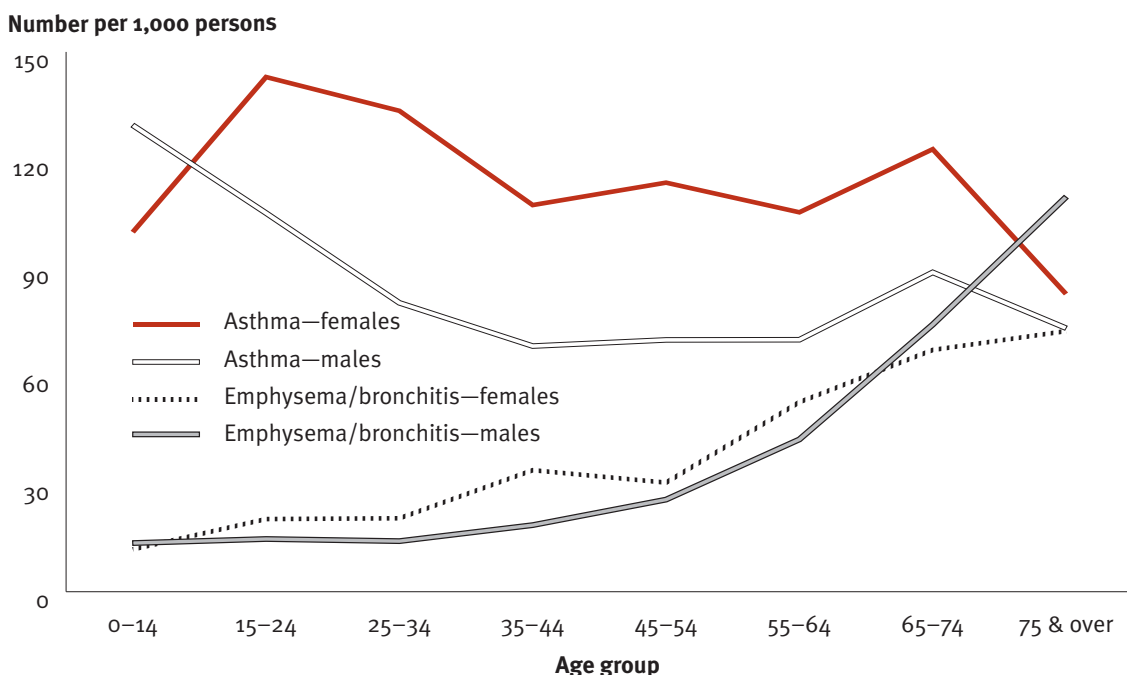
COPD is a serious long-term disease in which people have progressively worse shortness of breath on exertion. The main disease process underlying COPD is emphysema. This occurs as a result of the gradual destruction of lung tissue owing to the unopposed action of enzymes stimulated by inhaled irritants. The lungs become floppy and less able to move air in and out, thereby limiting the ability of the lungs to exchange gases. People with long-term cough and phlegm are regarded as having chronic bronchitis, a condition resulting from over-active mucous glands in

the large airways. Emphysema and chronic bronchitis are the main contributors to COPD and both are caused mostly by tobacco smoking, so they often coexist (AIHW 2006c).

The prevalence of emphysema or bronchitis increases with age (Figure 22.1). Estimates from respondents' self-reports to the 2004–05 National Health Survey (NHS) indicate that about 8% (191,400) of older Australians had emphysema or bronchitis, which is greater than the proportion in the total population (3%) (ABS 2006r). Although these estimates would contain some cases of bronchitis that were not chronic in nature, these numbers are probably underestimates because COPD is usually not diagnosed until it is moderately advanced and begins to restrict a person's daily activities (AIHW 2005c, 2006c). Also, the NHS is confined to private dwellings and does not include older people in, for example, residential care among whom the prevalence is likely to be greater.

Older Australians with COPD may require regular hospital care when symptoms worsen, lead to increased disability or become life-threatening. In 2004–05, there were 40,800 hospital separations among older Australians where the principal diagnosis was COPD, representing 1.7% of all hospital separations for that

**Figure 22.1: Prevalence of emphysema/bronchitis and asthma, by age and sex, 2004–05**



Source: ABS 2004–05 National Health Survey, see also Table A22.1.

age group. Hospital separations for COPD occur mainly among older Australians, with those aged 65 and over accounting for 77% of all COPD-related separations in 2004–05. At these ages, the male hospital separation rate for COPD is much higher than the female rate (Figure 22.2; AIHW 2005c). COPD hospital separation rates among older Australians have changed little over recent years (AIHW: Australian Centre for Asthma Monitoring 2006). Older Australians in hospital with a principal diagnosis of COPD often receive allied health services, especially physiotherapy (AIHW 2005c).

The shortness of breath experienced by people with emphysema, bronchitis or other types of COPD can be quite disabling. It can interrupt daily activity, the ability to exercise, and sleep patterns. It has been reported that, within about 8 years of being diagnosed, most people with COPD become incapable of productive work (Golding et al. 1993). In 2003, 75,100 older people with emphysema or bronchitis had a disability and 50% (37,400) of these had emphysema or bronchitis as their main disabling condition. Of these, 44% (16,500) had a severe or profound disability, that is, they sometimes or always needed personal assistance or supervision with one or more of the core activities—self-care, mobility and communication (2003 ABS Survey of Disability, Ageing and Carers).

COPD is a significant cause of death among older Australians, reflecting the end result of a progressive decline in lung function. It was the underlying cause of 4,730 deaths of older Australians in 2004 (2,740 males and 1,990 females), representing 4.5% of all deaths among older Australians that year. COPD is also listed commonly as a contributing or associated cause of death (6,470 deaths in 2004). The death rate among people aged 55 years and older declined by over 20% from 1997 to 2003 (AIHW: Australian Centre for Asthma Monitoring 2006).

## Asthma

Asthma is a chronic inflammatory disease causing episodes of wheezing, breathlessness and chest tightness because of narrowing of the airways within the lungs and obstruction of airflow. The symptoms of an episode are usually reversible, either spontaneously or with treatment. Although the underlying causes of asthma are still not well understood, constitutional factors such as genetic traits, age and sex, as well as environmental factors such as diet and lifestyle, may increase the risk of developing asthma (AIHW: Australian Centre for Asthma Monitoring 2005). Many factors that trigger airway narrowing and symptoms in

people with asthma, including exercise, viral infections, irritants (such as smoking and other air pollutants), specific allergens (house dust mites and mould spores) and some food preservatives (AIHW 2005c). Among older Australians the disease often coincides with COPD (AIHW: Australian Centre for Asthma Monitoring 2006).

Estimates based on the 2004–05 NHS indicate that 229,400 older Australians currently have asthma, representing 9% of that population (ABS 2006r). Prevalence rates are higher among older females than older males (Figure 22.1) (see also AIHW: Ampon et al. 2007).

Acute or reactive management of asthma (for severe exacerbations or increased symptoms) often occurs in hospital emergency departments. In 2004–05, asthma was the principal diagnosis in 3,600 hospital separations for Australians aged 65 years and over, representing 0.1% of all hospital separations for that age group. Australians aged 65 years and over accounted for 10% of all asthma-related separations in 2004–05. The asthma hospital separation rate for older females is higher than for older males and both increase steadily with age (Figure 22.2). Among older Australians, hospital separation rates for asthma as the principal diagnosis have been declining over recent years (AIHW: Australian Centre for Asthma Monitoring 2006). The diagnosis of asthma is more problematic in adults over 50 (as well as in very young children) because other breathing disorders may be difficult to distinguish from asthma (AIHW: Australian Centre for Asthma Monitoring 2006). For this reason, hospital separation data among older Australians should be interpreted cautiously (as should prevalence and mortality data).

In 2003, 121,000 older people with asthma had a disability and 24% (29,500) of these reported asthma as their main disabling condition. Of these, 42% (12,500) had a severe or profound disability, meaning that they sometimes or always needed personal assistance or supervision with one or more of the core activities (self-care, mobility and communication) (2003 ABS Survey of Disability, Ageing and Carers).

Asthma is not a common cause of death in Australia. In 2004, it was identified as the underlying cause of 206 deaths among older Australians (60 males and 146 females). In addition, asthma was registered 738 times as an associated cause of death. Deaths rates increase markedly after the age of 50, and deaths among older Australians represent 66% of all deaths from asthma. The death rate among people aged 55

years and over declined by almost 50% from 1997 to 2003 (AIHW: Australian Centre for Asthma Monitoring 2006).

Deaths from asthma among older people are often complicated by the presence of COPD, so attributing the actual cause of death in this group may be problematic (AIHW: Australian Centre for Asthma Monitoring 2006). Nevertheless, those whose underlying cause of death was attributed to asthma died on average about 10 years younger than those whose underlying cause of death was attributed to COPD.

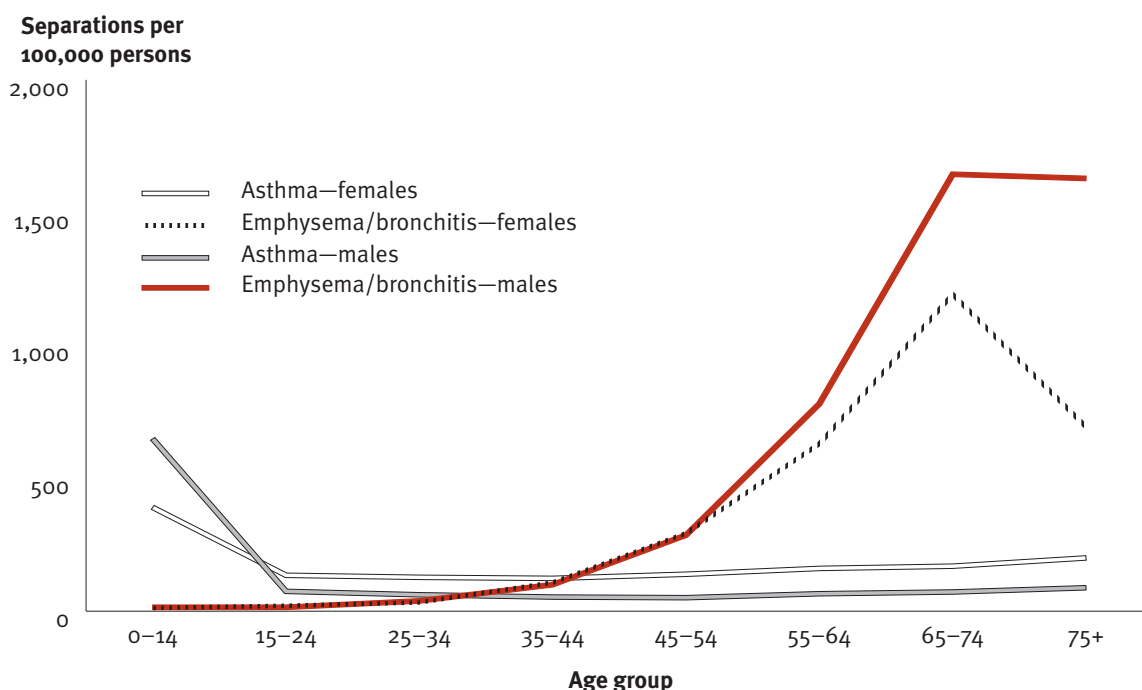
### Acute respiratory infections

Acute respiratory infections (ARI) include the upper and lower respiratory tract infections, influenza and pneumonia. They are a major cause of acute illness, hospitalisation and mortality among older Australians (AIHW 2005c). Several different types of infectious agents cause ARI, notably influenza viruses, rhinoviruses, respiratory syncytial virus and bacteria such as *Streptococcus pneumoniae*. Older Australians, along with children, Indigenous Australians and people with chronic diseases, are at an increased risk for these infections (AIHW 2006c).

ARI was listed as the principal diagnosis in about 45,600 hospital separations for older Australians in 2004–05, representing 1.8% of all hospital separations for that age group. Australians aged 65 and over accounted for 35% of all ARI-related hospital separations in 2004–05. Most ARI hospital separations for older Australians resulted from pneumonia and influenza.

ARI was the underlying cause of 3,498 deaths (1,549 males; 1,949 females) in 2004, making ARI the leading cause of death from infectious diseases. Most ARI deaths occurred among older Australians—3,263 ARI deaths (93%) occurred among people aged 65 years and over. The average age at death was 79 years for males and 83 years for females in 2004. The vast majority of ARI deaths among older Australians were due to pneumonia (96%, 3,127 deaths). Most deaths from pneumonia (56%) occur among persons aged 85 years and over.

**Figure 22.2: Hospital separations for COPD and asthma, by age and sex, 2004–05**



Source: AIHW National Hospital morbidity database, see Table A22.2.

Although the majority of older people enjoy good mental health, a significant minority experience one or more mental or behavioural disorders (9.5% of older people), high levels of psychological distress (10.9%), or take medication for their mental wellbeing (24%).

Mental health problems can cause considerable suffering and may cause individuals to experience social isolation and poor quality of life, as well as having negative impacts on families and the wider community (WHO 2006). It is one of the leading causes of the total burden of disease and injury in Australia (Begg et al. 2007) and is associated with increased exposure to health risk factors, poorer physical health and higher rates of death from many causes including suicide (AIHW 2006c).

In view of its impact on the health of the Australian population and the possible reduction in disease burden with prevention and treatment, mental health has been declared a National Health Priority Area.

The literature on mental health in older people tends to focus on dementia (see Topic 25: *Dementia*), however, functional disorders such as schizophrenia, anxiety disorders and clinical depression are more prevalent (Collier 2006). Major life changes such as divorce, involuntary unemployment, retirement, becoming grandparents, illness or disability, caring or bereavement may contribute to mental health problems in older adulthood. For example, Gill et al. (2006) report that younger male retirees are more likely to have mental health problems relative to their working peers and older retirees, although poor mental health does not appear to be an enduring characteristic of those who retire early.

### Older people and mental health data

The available data for mental disorders among older people are marked by reliability problems (Snowdon et al. 1998). Even more generally, methodological differences and the use of differing arbitrary cut-offs to distinguish cases from non-cases results in differences in estimates of prevalence between studies (Jorm 2006). The exclusion of individuals living in cared accommodation from the 1997 National Survey of Mental Health and Wellbeing and the 2004–05 National Health Survey (NHS) particularly affect analysis of mental health problems among older people. The former survey also excluded those with moderate or severe dementia—Snowdon (2001) notes that the prevalence of depression is considerably higher among those with physical disability, those in residential care and those with dementia.

### Long-term mental health conditions

The overall proportion of people self-reporting a mental and behavioural condition has increased from 6% in 1995 to 11% in 2004–05. This may be partly due to more people being willing to report mental health problems as the stigma associated with mental illness diminishes (AIHW 2007c). Results from the 2004–05 NHS show that, with the exception of organic mental problems (which include dementia), mental and behavioural problems are not more common among older people compared with younger people (Table 23.1). However, significant numbers of older people (230,800 people or 9.5%) still reported having at least one long-term mental or behavioural problem. The most commonly reported problems among older people were mood (affective) disorders and anxiety-related problems (reported by 4.6% and 4.0% respectively of people aged 65 years and over). Men were more likely than women to have a substance use disorder and women were more likely than men to have an anxiety or affective disorder. The 2004–05 NHS respondents were not specifically asked whether they had been diagnosed with any mental disorder, so the information provided could be based on self-diagnosis rather than diagnosis by a health professional.

Other studies have found anxiety to be the most common mental disorder among older people, although it is also the most under-diagnosed and under-treated. For example, the 1997 National Survey of Mental Health and Wellbeing of Adults which used the Composite International Diagnostic Interview (CIDI) to provide diagnoses of mental disorders for research purposes, found that anxiety disorders were more prevalent than affective disorders across all age groups (ABS 1998).

There is evidence that rates of mental disorders are higher among those who have physical impairments, cancer, chronic conditions such as arthritis, or are experiencing the effects of a stroke (Jorm 1995, cited in DHAC 2000: 81).

These estimates of prevalence in the older population may be understated. For example, depression is often not well recognised or detected in older people because depression may present with symptoms such as sleep and appetite problems, forgetfulness and lack of concentration (rather than dysphoria) which may be dismissed as part of the ageing process or confused with conditions such as dementia (DHAC 2000:101; O'Connor 2006). Older people have been twice as likely to decline involvement in some surveys and refusers are more likely to be depressed (Snowdon 2001).



Additionally, older people more commonly attribute depressive symptoms to physical illness, which are discounted by CIDI (O'Connor 2006).

There is some evidence that ageing is associated with an intrinsic reduction in susceptibility to anxiety and depression (Jorm 2000). Possible reasons for this reduction include decreased emotional responsiveness with age, increased emotional control and psychological immunisation to stressful experiences. However, Jorm (2000) also noted that the research about the prevalence of depression and anxiety in old age is inconsistent, and argued for the need to distinguish ageing from cohort effects through longitudinal data covering the adult life span.

## Psychological distress

The 2004–05 NHS includes questions about negative emotional states in the 4 weeks before interview. These questions are used to form the Kessler 10 Scale which groups results into four categories: low, moderate, high and very high levels of psychological distress. Adults reporting a long-term mental or behavioural problem were more likely to record higher levels of current psychological distress (ABS 2006r).

In 2004–05, 3.2% of people aged 65 years and over (78,300 people) reported very high levels of psychological distress (see Figure 23.1). A further 7.7%

(189,100 people) reported high levels of psychological distress. Proportionally fewer older males than older females reported high to very high levels of distress—11.6% for older females and 10.2% for older males.

O'Connor (2006) notes that results from the 1997 National Survey of Mental Health and Wellbeing show a small reduction in psychological distress with age—consistent with previous surveys of adult and aged community groups using a mental health scale which report similar reductions in scores with age. However, gerontological surveys that focus on the older population show either no change with age or a modest increase. This supports the suggestion by Jorm (2000) that measures for identifying psychological distress among older age groups need to be sensitive to possible age bias.

## Suicides

Although suicide is a relatively uncommon event (1.6% of all deaths registered in 2005 were attributed to suicide), the human and economic costs are substantial. There were 2,101 suicides in 2005, of which 13% (283) were by older people. The pattern of age-specific suicide rates for males and females is shown in Figure 23.2. The highest age-specific suicide death rates are observed in middle age, and the lowest are observed in the youngest age group and the young

**Table 23.1: Mental and behavioural problems, by age, 2004–05 (per cent)**

Mental & behavioural problem	0–14	15–24	25–34	35–44	45–54	55–64	65–74	75+	Total
Alcohol & drug problems	n.p.	0.7	1.4	1.2	1.6	*0.7	*0.5	n.p.	0.8
Mood (affective) problems	0.8	5.4	6.6	7.8	7.7	6.6	4.6	4.8	5.3
Anxiety-related problems	2.3	4.6	5.1	6.7	6.4	6.8	4.2	3.7	4.9
Problems of psychological development	2.6	2.3	1.0	0.9	0.9	0.8	*0.5	*0.8	1.4
Behavioural & emotional problems with usual onset in childhood/adolescence	3.0	1.3	n.p.	n.p.	n.p.	**0.1	n.p.	n.p.	0.9
Organic mental problems	n.p.	–	n.p.	n.p.	n.p.	*0.2	n.p.	1.9	0.2
Other mental & behavioural problems	0.5	0.8	1.1	1.2	1.0	1.1	*0.4	*0.4	0.9
Symptoms & signs involving cognition, perceptions, emotional state & behaviour	*0.2	*0.3	0.6	1.4	1.3	1.4	*0.4	*1.1	0.8
Any mental or behavioural problem	6.7	9.9	11.5	13.6	13.1	12.4	8.8	10.3	10.7
<b>Total population ('000)</b>	<b>3,920.6</b>	<b>2,693.0</b>	<b>2,813.6</b>	<b>2,959.2</b>	<b>2,734.8</b>	<b>2,120.2</b>	<b>1,353.7</b>	<b>1,086.4</b>	<b>19,681.5</b>

\* estimate has a relative standard error of 25% to 50% and should be used with caution.

\*\* estimate has a relative standard error greater than 50% and is considered too unreliable for general use.

– nil or rounded to zero (including null cells).

n.p. not available for publication but included in totals where applicable, unless otherwise indicated.

Source: Derived from ABS 2006r:Table 4.

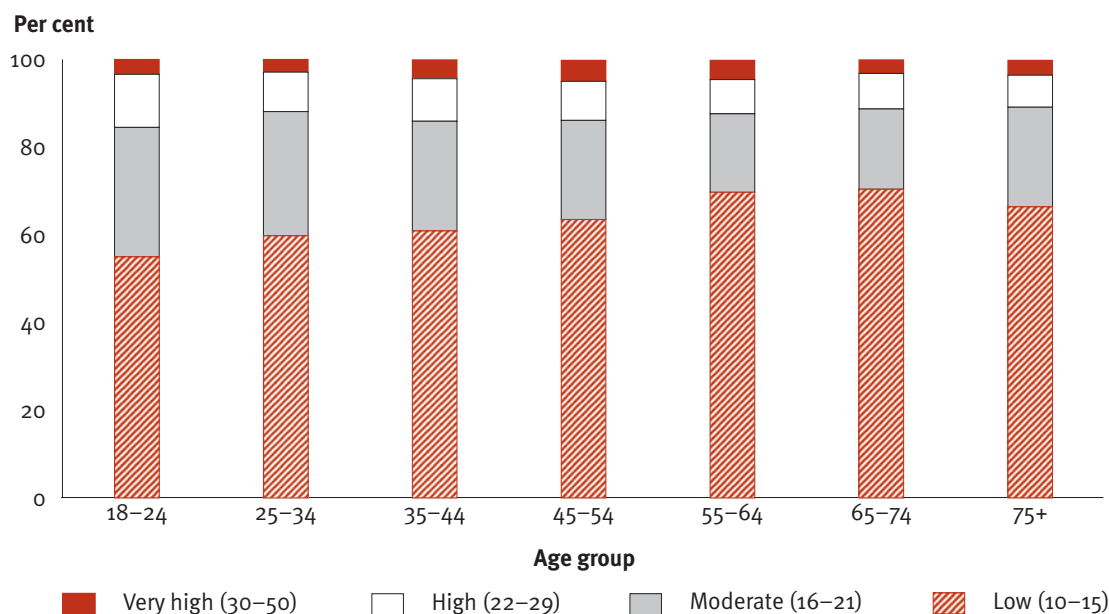


old (aged 65–69 years). The rate of suicide among older men increases with age. Fairweather et al. (2007) note that although rates of suicidal ideation decrease with age, completion rates normally increase with age.

Despite more women than men reporting affective disorders, the suicide rate for women is considerably lower than that for men at all ages—males constitute

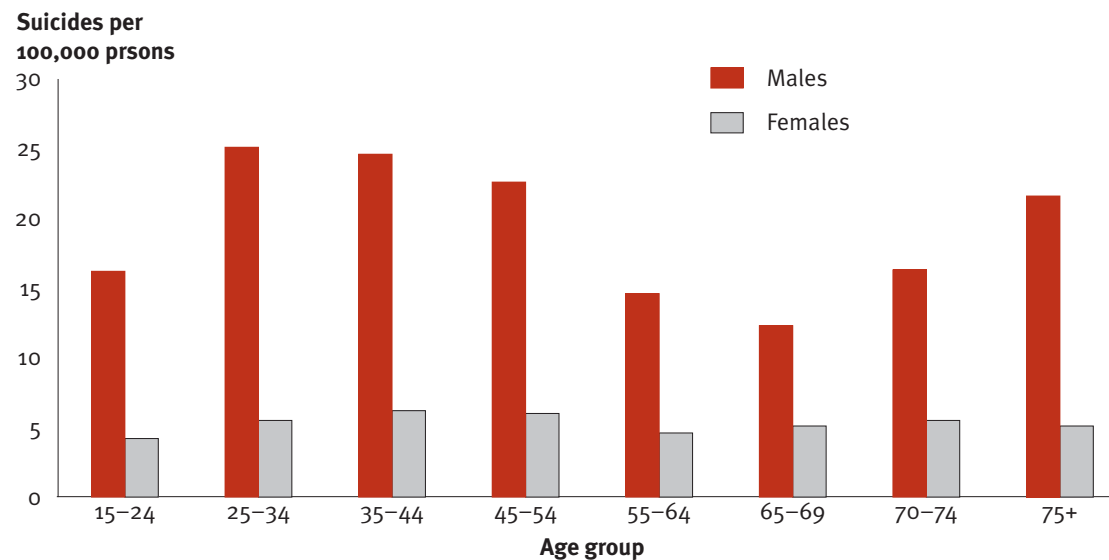
nearly three-quarters (73%) of older suicides in 2005. For those aged 65 years and over, the male age-standardised suicide death rate was over three times higher than the corresponding female rate.

**Figure 23.1: Level of current psychological distress, by age, 2004–05**



Note: As measured by the Kessler 10 scale, from which a score of 10 to 50 is produced.  
Source: Table A23.1.

**Figure 23.2: Suicide rates, by age, 2005**



Source: Table A23.2.

## Medications

In 2004–05, nearly a quarter (587,700) of older persons reported that they had used pharmaceutical medication and/or vitamins, minerals or herbal treatments for their mental wellbeing in the 2 weeks before interview (Table 23.2). Of those using medications for mental wellbeing, almost half reported using sleeping tablets or capsules, followed by other medications, antidepressants, and tablets or capsules for anxiety or nerves. Use of medications was higher overall in older age groups but this was largely because of the higher use of sleeping medications (11% of persons aged 65 years and over compared with 4.5% for the whole adult population).

**Table 23.2: Medication used for mental wellbeing, by age, 2004–05**

	18–34	35–44	45–54	55–64	65+	Total
Used medication	15.0	18.5	20.9	21.6	24.1	19.2
Sleeping tablets or capsules	1.8	2.8	4.0	5.3	11.4	4.5
Tablets or capsules for anxiety or nerves	1.1	1.7	2.4	2.9	3.1	2.0
Tranquillisers	*0.2	*0.4	1.0	1.0	1.1	0.7
Antidepressants	3.6	5.8	6.1	7.0	4.9	5.2
Mood stabilisers	0.4	0.9	*0.6	*0.7	*0.3	0.6
Other medications for mental wellbeing <sup>(a)</sup>	10.6	12.2	13.0	11.4	8.8	11.2
Did not use medication	85.0	81.5	79.1	78.4	75.9	80.8
<b>Total<sup>(b)</sup></b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number</b>	<b>4,708,800</b>	<b>2,959,200</b>	<b>2,734,800</b>	<b>2,120,200</b>	<b>2,440,100</b>	<b>14,963,100</b>

\* Estimate has a relative standard error of 25% to 50% and should be used with caution.

(a) Includes the use of vitamins, minerals and herbal treatments.

(b) Persons may have reported the use of more than one type of medication and therefore components may not add to totals.

Source: Reproduced from ABS 2006r:Table 16.

Highly prevalent, arthritis, osteoporosis and other diseases of the joints and bones place a significant burden on the individual and community, including disruptions to daily life, the use of hospital and primary care services and lost productivity (AIHW: Rahman et al. 2005). Significant activity limitation is associated with these conditions, particularly in the older population. More than 1.6 million older Australians are estimated to have had arthritis or a musculoskeletal condition in 2004–05 (ABS 2006r). The most commonly occurring conditions among older Australians are various forms of arthritis and back pain. Almost one in five older Australians with arthritis or a musculoskeletal condition is reported to have some disability. In view of this large disease burden—the number of people affected and the high disability impact—arthritis and musculoskeletal conditions were declared a National Health Priority Area in 2002. The focus of this initiative is osteoarthritis, rheumatoid arthritis, juvenile idiopathic arthritis and osteoporosis (AHMC 2005).

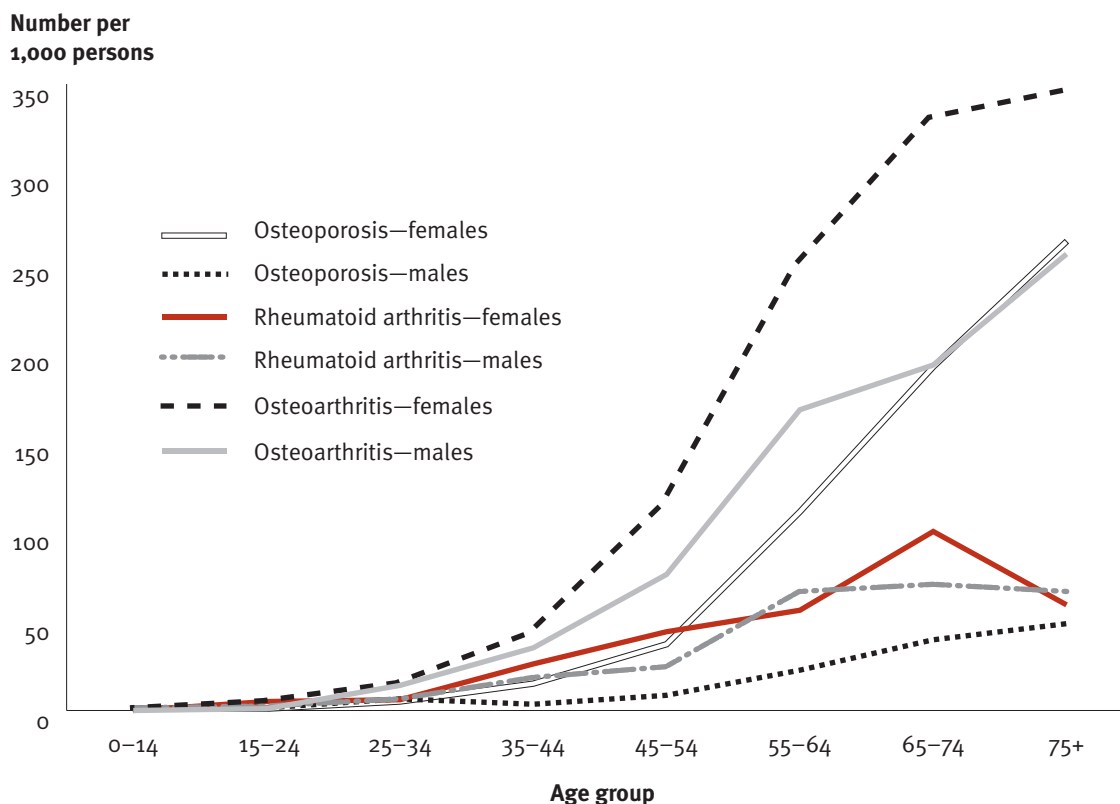
## Osteoarthritis

Based on self-reported information from the 2004–05 National Health Survey (NHS), the most common form of arthritis, osteoarthritis, affected nearly 687,300 older Australians in that period (ABS 2006r). The condition mainly affects the hands, spine and weight-bearing joints such as the hips, knees and ankles. Osteoarthritis is usually a progressive disease, becoming worse with time and often leading to functional limitations. As the disease progresses, the pain becomes more severe and incapacitating, thus affecting the wellbeing of the individual. The prevalence of osteoarthritis increases with age and is more common among females than males (Figure 24.1).

## Rheumatoid arthritis

Rheumatoid arthritis, the most common autoimmune disease in Australia, affected around 181,800 older persons in 2004–05, based on self-reports from the NHS (ABS 2006r). The disease involves inflammation

**Figure 24.1: Prevalence of various forms of arthritis, by age, 2004–05**



Source: AIHW analysis of 2004–05 ABS National Health Survey CURF, see Table A24.1.

of the joints, most often affecting the hand joints in a symmetrical fashion. Disability associated with rheumatoid arthritis starts early in the disease process and can seriously compromise the quality of life. The disease also produces a range of deformities.

## Osteoporosis

Osteoporosis is the thinning and weakening of the bone substance, increasing the risk of fracture and deformity. Fractures after minimal trauma are a hallmark of osteoporosis. They can reduce a person's ability to walk unassisted, and may lead to loss of independence. Estimates based on self-reported information from the 2004–05 NHS suggest that almost 400,000 older Australians had osteoporosis (ABS 2006r). Osteoporosis has no symptoms and people often do not know that they have it until a fracture occurs. Therefore, estimates based on self-reported information are likely to underestimate its prevalence. The disease is more common in females than males, and is mostly limited to older people (Figure 24.1).

## Disease severity and disability

Not everyone is affected in the same way by arthritis and musculoskeletal conditions. As the disease or condition progresses, decreased quality of life in terms of disability occurs because of more severe pain and limitations on activity. Depending on the amount of pain and stiffness, some people experience profound or severe activity limitation, whereas others have comparatively less.

Among people aged 65 years and over in 2003 who experienced disability associated with arthritis, 110,833 (38%) had profound or severe core activity limitation. This level of activity limitation implies an ongoing need for assistance with daily activities. The most common core activity limitation was mobility limitation, where people mainly needed assistance with going out of the house (74%), transferring to and from bed (30%) and getting about in the house (33%). Self-care was the second highest reported form of core-activity limitation. People in this group needed assistance with dressing (43%) and showering/bathing (28%). In both cases, the proportion with core-activity limitation was higher among females than males.

## Diagnosis and treatment

Although arthritis and musculoskeletal conditions have a considerable impact on health and quality of life, their effects can be reduced through early diagnosis and appropriate management. There have been recent developments in understanding their causal mechanisms and risk factors, and improvements in medications for their treatment, mainly to control pain and improve functioning. Joint replacement surgery, in particular, has revolutionised the lives of many people.

## Knee and hip replacements

Joint replacement (knee and hip replacement, or 'arthroplasty') is considered the most cost-effective intervention for severe osteoarthritis. The pain and disability of severe arthritis can be reduced by these procedures, restoring some patients to near-normal function (Brooks 2001; Bachmeier et al. 2001).

In 2004–05, there were 26,694 total joint replacements performed in Australia on people aged 65 years and over with the principal diagnosis of osteoarthritis, representing 69% of all total joint replacements in this age group. Arthroplasty of the knee was common among older females and arthroplasty of the hip was more common among older males. The numbers of knee and hip arthroplasties are increasing in Australia and, with the ageing of the population, this trend is likely to continue (AIHW: Rahman et al. 2005).

## Early diagnosis of rheumatoid arthritis

Early treatment for rheumatoid arthritis improves outcomes in some people, limiting the pain, joint damage and disability that occurs (Taouli et al. 2002). However, rheumatoid arthritis can be difficult to diagnose in its early stages as symptoms vary in appearance and severity and can be similar to those of other types of arthritis and joint conditions.

Despite these difficulties, once the symptoms are brought to the attention of a rheumatologist an accurate diagnosis can often be made quickly. This is done through blood tests, joint x-rays showing damage or bone thinning, magnetic resonance imaging (MRI) or ultrasound, to diagnose the disease and to rule out other conditions. Several clinical trials have shown the benefits of early diagnosis of rheumatoid arthritis, and MRI has been found to be an important tool for this purpose (Oliver et al. 2005).

## Osteoporosis and hip fractures

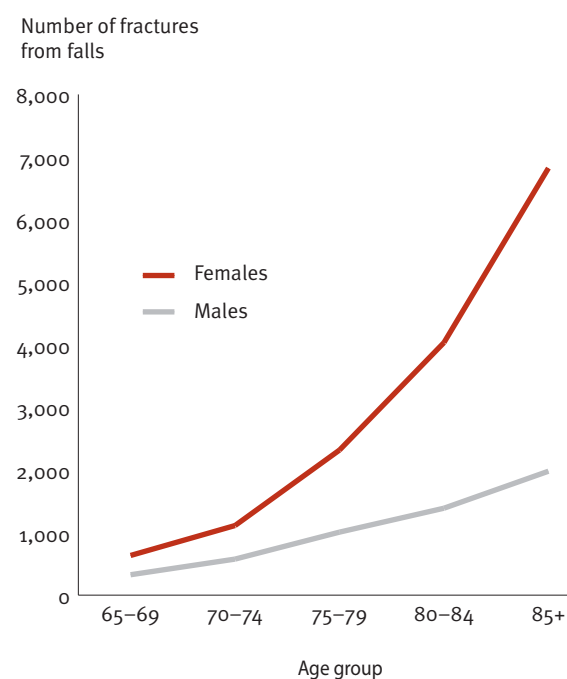
Fractures after minimal trauma (falls from standing height or less) are a hallmark of osteoporosis. A large proportion (92%) of fractures in people aged 65 years and over are osteoporotic in nature. Vertebral (spinal) fractures often occur without symptoms, almost 70% being clinically undetected. These fractures are often associated with height loss, vertebral deformity and vertebral compression. Activities such as lifting are a major cause of vertebral fractures.

Non-vertebral fractures, on the other hand, are painful and associated with swelling and deformity. In particular, hip fractures are highly debilitating and may shorten life expectancy, with almost 30% of those who have a hip fracture dying within 12 months (Woolf & Pfleger 2003). Many people with hip fractures do not regain their regular posture and mobility (Cumming et al. 1997), and the fracture almost always requires hospitalisation and major surgery.

In 2004–05, hip fracture was the most common reason for hospital separations among people aged 65 years and over with an additional diagnosis of osteoporosis. This was followed by fracture of the forearm and the lower leg. Hip fractures constituted more than 40% of all fracture separations among those aged 65 and over, and the proportion increased to 51% among those aged 85 years and over.

Falls are a major cause of hip fractures. In 2004–05, a fall was listed as the external cause of injury in 20,200 separations of persons aged 65 years and over with the principal diagnosis of hip fracture, representing 92% of all such separations. More females than males were hospitalised, with the hospital separation rate being higher for females at all ages. Hospital separations for fall-related hip fractures increase rapidly with age, from around the age of 65 years (Figure 24.2). The rates have changed little in recent years.

**Figure 24.2: Hospital separations for fall-related hip fractures, by age and sex, 2004–05**



Source: AIHW National Hospital Morbidity Database; see Table A24.2.

Dementia is not a single specific disease—it describes a syndrome associated with a range of diseases which are characterised by the impairment of brain functions, including language, memory, perception, personality and cognitive skills. It restricts daily activities and, in the long term, can result in high care needs. Many diseases can cause dementia, the most common being Alzheimer's disease. Other common forms of dementia include vascular dementia, dementia with Lewy bodies, front temporal dementia (including Pick's disease) and mixed forms of dementia. Dementia is a major health problem among older people, although it is not a natural part of ageing.

Governments at national and state level are developing responses to the challenges posed by dementia, through initiatives such as the Australian Government's *Helping Australians with dementia, and their carers—making dementia a National Health Priority* introduced in the 2005 Federal Budget. This funding package (\$320.6 million over five years) will support people with dementia and their carers through three measures: *Dementia—A National Health Priority*, *Extended Aged Care at Home Dementia Packages*, and *Training to Care for People with Dementia*.

### Treatment and risk factors

There is currently no cure for dementia, although anticholinesterases can help manage the symptoms associated with Alzheimer's disease. There are more than 130 trials for Alzheimer's drugs under way in Australia, with several showing promise of curing the disease or slowing its development. However, controlling cardiovascular risk factors (e.g. diabetes and high blood pressure) and keeping physically, mentally and socially active can reduce the risk of dementia. Results from the Dubbo Study of the Health of the Elderly suggest that gardening has a strong protective effect against dementia (Simons et al. 2006). Other lifestyle activities that seemed to lower the risk of developing dementia included drinking a moderate amount of alcohol, daily walking and education. Pre-existing heart or lung disease, a physical disability and depression increased the risk of dementia.

### Disability

Because of its disabling rather than fatal nature, dementia has a much greater effect on years of healthy life lost because of disability than it has on years of life lost because of premature death (Begg et al. 2007). In 2003, dementia was ranked the fifth leading cause of overall female burden of disease and was the most significant neurological disorder experienced. It is the greatest single contributor to burden of disease because of disability at older ages as well as the second greatest single contributor to the cost of care in residential aged care after incontinence (AIHW 2007e).

In older people, dementia is more likely than other health conditions to be associated with severe or profound limitations in self-care, mobility and communication, is more likely to be the main health condition resulting in disability, and is very likely to be associated with multiple health conditions (see Topic 17: *Disability levels* and Table A17.2). Other long-term health conditions include gait disturbance, slowed movement, fractures, arthritis, osteoporosis and urinary tract infections. The oral health of older people with dementia is also significantly worse than that of their unaffected age peers (AIHW Dental Statistics and Research Unit 2005).

Dementia is a progressive condition whose impact on the individual's functioning increases with the growing severity of the underlying disease. Dementia may be classified as 'mild' in about 55% of people, 'moderate' in 30% and 'severe' in 15%, based on the severity definitions of the Clinical Dementia Rating (CDR) scale (AIHW 2007e). Those with moderate dementia are described as having such severe memory loss that only highly learned material is retained, they are severely impaired in making judgments or solving problems and they often have no pretence of independent function outside the home, and require help with personal care.

Consequently, people with dementia use a significant quantity of health and aged care services including GPs, pharmaceuticals, aged care assessments, community care programs, hospitals and residential aged care. They also require a significant amount of time and help from their carers and many carers experience distress associated with the behavioural and psychological symptoms of dementia. Care and organisation of the environment can help with physical problems such as incontinence, difficulties of food intake and problems in lying down. Medication can improve the symptoms of dementia, which in turn may improve quality of life, ease the burden on caregivers, and delay admission to residential care.



## Prevalence of dementia

### Dementia prevalence by age and sex

Rates increase markedly with age. It is estimated that in 2006 about 6.5% of people aged 65 years and over and 22% of people aged 85 years and over had dementia (Table 25.1; AIHW 2007e). That is, there were around 181,000 people aged 65 years and over including 73,500 people aged 85 years and over with dementia. Almost two-thirds of older people with dementia (65% or 118,200 people) were female. The estimate for women is greater than that for men because women live longer, and the age-specific rates on which the estimates are based are higher for women in the older age groups.

According to these estimates, 43% of people with dementia are aged 75–84 years and 39% are aged 85 years and over. The age profile of males with dementia is different from that of females. For example, a higher proportion of males with dementia are aged less than 75 years (29%) than females (13%).

### Dementia prevalence by place of residence

Because dementia is one of the most disabling health conditions, a large proportion of people with severe and advanced dementia require full-time care and live in cared accommodation. The 2003 Survey of Disability, Ageing and Carers (SDAC) is currently the best source of data about dementia in cared accommodation—there is evidence that the SDAC underestimates cases of mild and moderate dementia in households, but to a

lesser extent in cared accommodation.

The prevalence of dementia by place of residence (cared accommodation or households) is shown in Table 25.2. Of the 166,600 older people with dementia in 2003, 44% (74,100) were in cared accommodation, and consequently the remaining 56% (92,500 people) lived in households. The proportion of people with dementia who live in households decreases with age—79% of people with dementia aged 65–74 still live in the community, but for those aged 85 and over the proportion decreases to 36%.

The age profile of people with dementia in cared accommodation is older than for people in households. Almost one-quarter of people with dementia living in households are aged 85 years and over, compared with 55% of those in cared accommodation. Nearly half of males aged 85 and over with dementia still lived in households compared with 32% of females in the same age group. This pattern is reflected across all age groups where a greater proportion of men than women with dementia are still living in households.

The majority of people with dementia living in private households have mild dementia (93%); in contrast, 96% of people with dementia living in cared accommodation have moderate or severe dementia. Reflecting this pattern, most people with mild dementia are living in households (96%) and most people with moderate or severe dementia are in cared accommodation (91%). Accordingly, of the estimated \$1.4 billion health and aged care system expenditure for dementia in 2003, the majority (\$993 million) was in the residential aged care sector (AIHW 2007e).

**Table 25.1: Prevalence of dementia in older Australians, by age and sex, 2006**

	Rate (per cent)			Number		
	Males	Females	Persons	Males	Females	Persons
0–64	0.1	0.0	0.1	5,900	2,900	8,800
65–74	2.0	1.8	1.9	13,900	12,600	26,500
75–84	7.3	9.3	8.4	30,500	50,300	80,800
85+	17.1	24.9	22.4	18,300	55,300	73,600
<b>Total 65+</b>	<b>5.0</b>	<b>7.8</b>	<b>6.5</b>	<b>62,700</b>	<b>118,200</b>	<b>180,900</b>

Note: Derived from aggregated age- and sex-specific rates from a meta-analysis of data from European studies (Lobo et al. 2000). Percentages are of the estimated Australian resident population of that age and sex at 30 June 2006.

Source: Reproduced from AIHW 2007e based on data from Lobo et al. 2000 and Harvey et al. 2003.

Table 25.3 shows that the SDAC identified 67,650 people in permanent residential aged care with dementia, constituting 49% of the permanent resident population (as at June 2003). The age profile for people with dementia is slightly older than that for all permanent residents: 14% of residents are aged less than 75 years but this is true for only 8% of residents with dementia.

A person with dementia is also more likely to be in high-level care according to the Resident Classification Scale (RCS). The categories RCS 1 to RCS 4 of the RCS are designated high-level care. 83% of people with dementia (56,000 people) require high-level care compared with 64% of all permanent residents. Residents with dementia also dominate the high-level care categories—72% of residents in the highest care category (RCS 1) had dementia, dropping to 46% in RCS 4 and only 23% of residents in the low-level care categories RCS 5 to RCS 8 (Table 25.3).

### Dementia prevalence in the future

Between 2006 and 2031, the number of older people with dementia is projected to increase from 180,800 to 452,600, an increase of 150% or 271,900 persons (Table 25.4). In the 5 years to 2011 the number of older people with dementia is projected to increase by 17% (31,300 persons) to around 212,000 persons.

This expected increase results from the projected increase in the number of older people over this period and is based on the assumption that prevalence rates for dementia remain stable. However, prevalence rates may change as a result of changes in prevention, detection, management and treatment of the disease.

### Incidence of dementia

Based on information about prevalence, duration of illness and mortality it has been estimated that in 2003 there were around 37,000 incident (new) cases of dementia among Australians of all ages (AIHW 2007e:Table 4.9), of which 35,500 were among people aged 65 years and over. The majority among older Australians (64% or 22,700) were female and 12,800 were male. Incidence increased with age in both males and females, but decreased in those aged 85 years and over.

Not all of these incident cases of dementia will be initially visible because onset usually occurs with mild symptoms. However, as dementia is not reversible, these people will eventually become part of the visible prevalent population unless they die from other causes before that.

**Table 25.2: Prevalence of dementia in households and cared accommodation, by age and sex, 2003**

	<sup>(a)</sup> Cared accommodation	Households	Total prevalence	Per cent living in households
<b>Males</b>				
0-64	600	4,900	5,500	90%
65-74	2,300	11,000	13,200	83%
75-84	7,300	20,900	28,200	74%
85+	7,900	7,700	15,600	49%
<b>Total 65+</b>	<b>17,500</b>	<b>39,500</b>	<b>57,000</b>	<b>69%</b>
<b>Females</b>				
0-64	600	2,000	2,600	76%
65-74	3,000	9,200	12,200	75%
75-84	20,000	28,100	48,100	58%
85+	33,600	15,700	49,300	32%
<b>Total 65+</b>	<b>56,600</b>	<b>53,000</b>	<b>109,600</b>	<b>48%</b>
<b>Persons</b>				
0-64	1,200	6,900	8,100	85%
65-74	5,300	20,100	25,400	79%
75-84	27,300	49,000	76,300	64%
85+	41,500	23,400	64,900	36%
<b>Total 65+</b>	<b>74,100</b>	<b>92,500</b>	<b>166,600</b>	<b>56%</b>

(a) 'Cared accommodation' includes accommodation for the retired or aged, home for the aged, home—other, hospital—general, and hospital—other. It is broader in scope than 'Residential aged care'.

Source: Reproduced from AIHW 2007e, based on data from Lobo et al. 2000 and Harvey et al. 2003 and AIHW analysis of ABS 2003 SDAC confidentialised unit record file.

**Table 25.3: Dementia in residential aged care, by age and RCS category, 2003**

Age	RCS 1	RCS 2	RCS 3	RCS 4	RCS 5 -RCS 8	Total <sup>(a)</sup>	% total dementia	Total permanent residents <sup>(b)</sup>	% total permanent residents
<65	325	135	270	0	221	<b>951</b>	1.4	6,038	4.3
65-74	1,121	1,247	802	60	1,173	<b>4,403</b>	6.5	13,065	9.4
75-84	6,548	7,367	4,656	1,494	4,489	<b>24,554</b>	36.3	49,165	35.4
85+	12,541	11,854	6,322	1,494	5,529	<b>37,740</b>	55.8	70,783	50.9
<b>Total with dementia</b>	<b>20,535</b>	<b>20,603</b>	<b>12,051</b>	<b>3,049</b>	<b>11,413</b>	<b>67,650</b>	<b>100.0</b>	<b>139,051</b>	<b>100.0</b>
<i>Percentage of persons with dementia in each RCS category</i>									
	30.4	30.5	17.8	4.5	16.9	<b>100.0</b>	..	..	..
<b>Total permanent residents</b>	<b>28,470</b>	<b>34,213</b>	<b>20,255</b>	<b>6,558</b>	<b>49,555</b>	<b>139,051</b>	..	..	..
<i>Percentage of permanent residents in each RCS category</i>									
	20.5	24.6	14.6	4.7	35.6	<b>100.0</b>	..	..	..
<i>Per cent of RCS category with dementia</i>									
	72.1	60.2	59.5	46.5	23.0	<b>48.7</b>	..	..	..

(a) Population with dementia in residential aged care is derived from analysis of the ABS 2003 Survey of Disability, Ageing and Carers.

(b) Total permanent residents of residential aged care (AIHW 2004d).

Note: see AIHW 2007e for a discussion of the methodology which allocated residents with dementia to one of the RCS categories.

Source: AIHW 2007e: Table 7.27.

**Table 25.4: Projected number of people with dementia, by age and sex, 2006 to 2031**

	2006			2011			2031		
	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons
0-64	5,900	2,900	8,800	6,700	3,300	10,000	8,000	4,000	12,000
65-74	13,900	12,600	26,500	16,700	14,900	31,600	28,400	26,000	54,500
75-84	30,500	50,300	80,700	33,000	51,500	84,500	71,800	104,100	175,900
85+	18,300	55,300	73,500	25,700	70,300	96,000	74,200	148,100	222,200
Total 65+	62,600	118,200	180,800	75,300	136,700	212,000	174,400	278,200	452,600
<b>Total</b>	<b>68,500</b>	<b>121,100</b>	<b>189,600</b>	<b>82,000</b>	<b>140,000</b>	<b>222,000</b>	<b>182,400</b>	<b>282,200</b>	<b>464,600</b>

Source: Reproduced from AIHW 2007e: Table 4.5 based on data from Lobo et al. 2000 and Harvey et al. 2003.

Visual impairment can affect physical, functional, emotional and social wellbeing and markedly reduce quality of life. The ability to perform basic activities of daily living can be affected, leading to less independence. Driving ability and access to a licence can be affected, which is a key aspect of independence for many older people (Keeffe et al. 2002; RTA 2007) (see Topic 5: *Transport*). Impaired vision is often accompanied by isolation, depression, and poorer social relationships, and is strongly associated with falls and hip fractures. Preventing and treating visual impairment increases the prospect of enjoying life as a healthy, productive older person. In 2005, a national framework for action was released that aims at promoting eye health and preventing avoidable blindness and vision loss in Australia (DoHA 2005b, 2005c).

### Prevalence of eye diseases, visual impairment and blindness

Based on studies that have included an eye examination, cataract is the most common eye disease among Australians aged 65 and over, affecting over 1.2 million people (almost half of that population). This is followed by age-related macular degeneration (AMD), diabetic retinopathy and glaucoma (Table 26.1).

About 170,000 Australians aged 65 years and over have visual impairment caused by eye disease. Of

these, 51,000 people are classified as blind and almost 119,000 other people have low vision. There is a strong association between visual impairment and advancing age (Figure 26.1).

Cataract is the primary cause of 42% of cases of visual impairment in older Australians and AMD the primary cause of 30%. The leading causes of blindness among Australians aged 65 years and over are AMD (55%), glaucoma (16%) and cataract (13%). Uncorrected refractive error, which can be corrected by eyewear, is the cause of visual impairment in a further 204,600 Australians aged 65 years and over.

### Cataract

A cataract is a clouding of the eye's naturally clear lens. When the lens becomes opaque, the amount of light that passes through it is reduced and scattered, and the image cannot be correctly focused on the retina at the back of the eye. Vision becomes poor, as if looking through a frosty window, and eyes may be more sensitive to glare and light, and colours may seem faded or yellowed.

Age-specific rates for cataract increase with age and are well over 70% for people aged 80 years and over (Figure 26.1). Generally, prevalence rates are higher among women than among men.

**Table 26.1: Most prevalent eye diseases and associated visual impairment and blindness among older people, 2004**

	Eye disease		Visual impairment		Blindness	
	Number	Per cent	Number	Per cent	Number	Per cent
Cataract	1,215,400	46.7	71,800	42	6,600	13
Age-related macular degeneration	<sup>(a)</sup> 138,800	5.3	50,600	30	28,300	55
Glaucoma	87,100	3.3	13,300	8	8,100	16
Diabetic retinopathy	97,100	3.7	5,400	3	<sup>(b)</sup> 8,000	16
Other	..	..	28,500	17		
<b>Total</b>	<b>..</b>	<b>..</b>	<b>169,600</b>	<b>100</b>	<b>51,000</b>	<b>100</b>

(a) A further 398,400 older Australians were estimated to have early age-related maculopathy, which usually carries no symptoms, and were therefore at risk of developing age-related macular degeneration.

(b) Figures are for diabetic retinopathy and 'other' combined.

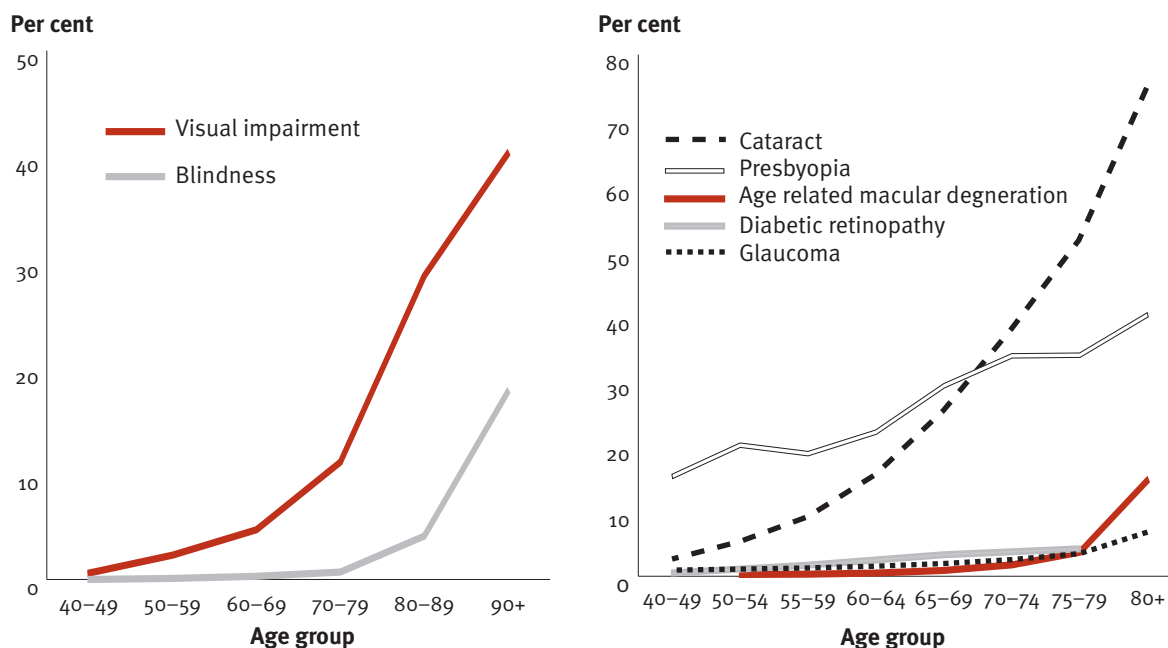
#### Notes

1. Visual impairment was defined as visual acuity < 6/12 and blindness as visual acuity < 6/60. Visual acuity of 6/12 is the ability to see only at 6 metres what the normal eye can see at 12 metres. Visual impairment includes blindness.

2. Refractive error is not included.

Source: AIHW 2005f.

**Figure 26.1: Prevalence rates of visual impairment and its causes, by age, 2004**



Source: AIHW 2005f, see also Table A26.1.

## Age-related macular degeneration (AMD)

Age-related macular degeneration (AMD) is a progressive condition affecting the central part (macula) of the retina that provides fine vision for daily tasks such as reading and recognising faces. In the early stage, sometimes referred to as age-related maculopathy (ARM), vision is unaffected and people may be unaware that they have the condition. People with ARM are at higher risk of AMD but do not necessarily progress to AMD.

Age-specific rates increase markedly for people over 80 years (Figure 26.1). Rates are similar between men and women.

## Glaucoma

Glaucoma is a disease involving damage to the optic nerve and subsequent vision loss or blindness. The condition is often associated with increased intraocular pressure resulting from either malfunction or malformation of the eye's drainage system. Most cases of glaucoma usually begin with a loss of peripheral

vision, which is often unnoticeable. As permanent nerve damage occurs, symptoms become obvious. Tunnel vision may develop, and only objects that are straight ahead can be seen. Signs include headache, blurred vision, light sensitivity or haloes around lights.

There was no statistically significant difference in prevalence rates between men and women, and rates increased with age (Figure 26.1).

## Diabetic retinopathy

Diabetes impairs the body's ability to use glucose for energy and results in high blood glucose levels. Over a period of years, this will damage small blood vessels in the body, among other effects, and often cause complications. Diabetic retinopathy (DR) is a common diabetes complication that affects the small blood vessels of the retina.

In the early stages the blood vessels of the retina can develop small swellings in the walls, bleed, and leak fluid. This stage is not usually associated with visual impairment and there are no symptoms. However, if this process affects the macula, fluid can accumulate and,

unless treated, loss of central vision occurs. In people who have had diabetes for many years, abnormal blood vessels can grow on the surface of the retina, and without treatment these can bleed, causing cloudy vision or blindness.

Abnormal fibrous tissue may also develop, leading to retinal detachment and severe vision loss.

Some 97,100 people aged 65 years and over have DR (Table 26.1). For this age group this represents 3.7% of people and 18.3% of people with diabetes. The prevalence of DR was greater in the older age groups (Figure 26.1).

## Presbyopia

Presbyopia is a condition in which the natural lens of the eye loses its flexibility so that focusing on close objects becomes difficult. It develops over a number of years and usually becomes noticeable during middle age, beginning in the 40s. The signs of presbyopia include tendency to hold reading materials at arm's length, blurred vision at normal reading distance, and fatigue, eyestrain or headache when performing close work. Presbyopia is generally believed to be part of the natural process of ageing, unlike eye diseases such as cataract, age-related macular degeneration, glaucoma and diabetic retinopathy.

Estimation of the prevalence of presbyopia is problematic. Based on self-reported data from the 2004–05 NHS, presbyopia affects 333,700 older Australians (aged 65 years and over), which represents 14% of that age group (ABS 2006r). However, these estimates are in marked contrast to those from the 2001 NHS (761,800 and 34%). This large fall is more likely to be an unforeseen effect of a change in methodology than a true reflection of a change in population health (ABS 2006r). Both surveys found that there was a clear increase in the prevalence rate with age, with men and women having similar patterns.

## Aboriginal and Torres Strait Islander peoples

There are limited data available on the eye health of Aboriginal and Torres Strait Islander peoples. There are no estimates of cataract prevalence based on ophthalmic examination and the data based on self-report is inconclusive. Reliable prevalence estimates are also lacking for AMD and glaucoma. Diabetic retinopathy is likely to be an important vision-threatening condition among Indigenous Australians because of the high rate of Type 2 diabetes in some

communities. The prevalence of trachoma is very high among the children of some Indigenous communities and its sequel, trichiasis, is relatively high among older Indigenous Australians in some areas. There are few recent data on the prevalence of trachoma, or of trichiasis among older Indigenous Australians. There are no eye examination data on the eye health on Indigenous people living in urban and rural settings.

## The ageing factor

Ageing is the major contributing factor to visual impairment and blindness. Prevalence rates are greater among successive age groups and rates of major vision-threatening conditions are also strongly age-related (Figure 26.1). Unless these rates fall markedly, the number of older people with vision problems will increase over future decades as the population ages.

Some vision problems among older Australians are acquired early in life (e.g. congenital eye disorders, retinitis pigmentosa and eye trauma), but at a population level their prevalence is small compared with vision problems associated with ageing towards the end of life.

## Treatment for eye diseases

The availability of successful treatments differs according to the eye disease. There is a simple and effective surgical procedure that restores vision for cataract. There is no cure for AMD but treatment may delay or halt its progress. Medical treatment, laser treatment or surgery can slow the progress of glaucoma but any vision loss cannot be restored. Diabetic retinopathy can be successfully treated by laser surgery if identified early, and laser treatment can be used to prevent severe vision loss and blindness even in advanced cases.



Older adults are a priority group for oral health policies, including Australia’s National Oral Health Plan (NACOH 2004). This has come about because of two significant trends that will continue to have a profound effect on oral disease and requirements for dental care through the first half of the 21st century. The first is the demographic trend of population ageing, in which the number and proportion of older adults is increasing (see Topic 2: *The changing demographic profile*). The consequence is that a broad range of diseases associated with older age are becoming more common in the Australian population, including oral conditions such as dental decay and gum disease. The second trend is an equally dramatic reduction in rates of tooth loss which has increased the number and proportion of Australians who are retaining their own natural teeth. Because those retained teeth remain at risk of developing oral disease, and because of the multiplier effect of population ageing, the number of older people with conditions such as dental decay is projected to increase (AHMAC Steering Committee for National Planning for Oral Health 2001).

The most recent information about oral health status of older Australians comes from the National Survey of Adult Oral Health 2004–06 in which 14,123 people in the age group 15–97 years were interviewed and 5,505 people were dentally examined (AIHW Dental Statistics

and Research Unit 2007). It represented Australia’s second national oral examination survey, occurring some 17 years after the National Oral Health Survey of Australia 1987–88 (Barnard 1993). This section summarises key findings from the survey, including a comparison of selected trends in oral health and patterns of dental care. The focus is on people in the age groups 55–74 years and 75 years and over.

### Prevalence of oral diseases and disorders

Oral conditions measured in the 2004–06 survey included tooth loss, presence and experience of dental decay, gum disease and tooth wear. All measures of tooth loss were more frequent in successively older age groups. However, some of the largest absolute differences were observed among those aged 75 years and over compared with people aged 55–74 years (Table 27.1). For example, one in three people aged 75 years and over (36%) had lost all of their natural teeth, but the figure was more than 20 percentage points lower for those aged 55–74 years. Other measures of oral disease that accumulate with age followed a similar pattern of increasing frequency in progressively older age groups: filled teeth, gum recession and attachment loss, and dental wear.

**Table 27.1: Frequency of clinical oral conditions in four age groups, 2004–06**

Oral condition	Age group (years)			
	15–34	35–54	55–74	75+
<b>Tooth loss and replacement</b>				
Loss of all teeth (% of people)	0.0	1.7	13.9	35.7
Fewer than 21 natural teeth (% of dentate people <sup>(a)</sup> )	0.4	6.8	28.6	55.1
Denture(s) worn (% of dentate people)	1.5	10.3	36.0	61.2
Number of extracted teeth <sup>(b)</sup> (average per dentate person)	0.8	3.9	10.2	14.1
<b>Experience of dental decay</b>				
Untreated decay of tooth crown (% of dentate people)	25.8	27.1	22.6	22.0
Untreated decayed tooth root (% of dentate people)	1.6	7.1	12.6	17.3
Filled teeth (% of dentate people)	65.4	94.8	96.2	89.5
DMFT: number of decayed, missing or filled teeth (average per person)	4.5	14.4	22.2	24.3
<b>Gum disease</b>				
Moderate or severe gum disease <sup>(c)</sup> (% of dentate people)	7.4	24.5	43.6	60.8
Gum pockets of 4mm or more (% of dentate people)	13.1	23.9	23.7	26.0
Gum attachment loss of 4mm or more (% of dentate people)	17.4	48.8	73.0	80.5
Gum inflammation (% of dentate people)	19.1	19.3	21.0	23.7
<b>Tooth wear</b>				
Severe wear of lower incisors (% of dentate people)	0.5	2.3	7.8	12.0

(a) People who have one or more natural teeth.

(b) Teeth extracted because of decay or gum disease.

(c) Either two or more sites between adjacent teeth where the gum has lost its attachment to the tooth for 4 mm or more or at least two such sites that have pockets of 5 mm or more.

Source: National Survey of Adult Oral Health 2004–06 (AIHW Dental Statistics and Research Unit 2007).

In contrast, approximately one in four people had untreated dental decay in all four age groups, a similar proportion in each age group had gum inflammation, and the percentage of people with deep gum pockets was similar for all but the youngest age group. Those three measures are indicators of untreated or active oral disease. The overall pattern in Table 27.1, therefore, demonstrates that although cumulative measures of oral disease (e.g. tooth loss) increase for successively older groups of Australians, the levels of untreated, active disease were similar among age groups.

### Trends in complete tooth loss

In the 17 year interval between surveys, the percentage of Australians who were edentulous (had no remaining natural teeth) more than halved, from 14% to 6% (AIHW Dental Statistics and Research Unit 2007:Figure 8.1). The reduction was pronounced even among people aged 75 years and over, where the percentage reduced from 63% to 36%. Almost all of the reduction occurred because of the passing of older generations who had experienced an 'epidemic' of dental extractions during the first half of the 20th century. Within generations, levels of complete tooth loss did not change meaningfully as members of each generation aged 17 years between surveys. For example, among people born between 1916 and 1932, 33% were edentulous in

the 1987–88 survey, when members of that generation were aged 56–72 years. Seventeen years later, members of that same generation were aged 73–89 years, yet their prevalence of edentulism remained at 33%. This analysis of two national surveys confirms findings based on analysis of other surveys dating back to 1979 (Sanders et al. 2004). The results illustrate that prevalence of complete tooth loss in the Australian population is unrelated to the ageing process. Instead, it is dictated by the historical period in which people were born, specifically the patterns of dental treatment in those periods.

### Trends in dental decay experience

In the 17 year interval between national oral health surveys, there were divergent trends in dental decay experience among seven age groups (Table 27.2). Among older age groups, there were marked reductions of approximately 4 teeth per person in the average number of missing teeth, whereas among those aged 15–24 years, there was only a negligible reduction of 0.2 of a tooth per person. The number of filled teeth per person increased for the oldest age groups and decreased for age groups below age 45. Meanwhile, the number of untreated decayed teeth per person declined fairly uniformly among all age groups.

These divergent patterns among age groups produced starkly different trends in overall dental decay

**Table 27.2: Average number of teeth with experience of dental decay among dentate<sup>(a)</sup> Australians, by age, 1987–88 and 2004–06**

Component of decay experience	Survey	Age group (years)						
		15–24	25–34	35–44	45–54	55–64	65–74	75+
Missing teeth per person	1987–88	0.4	2.3	4.9	9.9	13.6	16.4	18.3
	2004–06	0.6	1.0	2.1	6.1	9.2	12.0	14.1
	<i>Change</i>	0.2	-1.3	-2.8	-3.8	-4.4	-4.4	-4.2
Filled teeth per person	1987–88	4.1	9.1	10.6	9.2	7.5	6.1	5.4
	2004–06	2.0	4.2	7.8	12.0	12.1	10.9	9.8
	<i>Change</i>	-2.1	-4.9	-2.8	2.8	4.6	4.7	4.3
Untreated decayed teeth per person	1987–88	1.4	1.8	1.4	1.3	1.3	1.4	1.4
	2004–06	0.6	0.8	0.7	0.6	0.4	0.4	0.4
	<i>Change</i>	-0.8	-1.0	-0.7	-0.8	-0.8	-1.0	-0.9
DMFT <sup>(b)</sup> per person	1987–88	5.9	13.1	16.9	20.4	22.4	24.0	25.1
	2004–06	3.2	5.9	10.7	18.7	21.8	23.3	24.3
	<i>Change</i>	-2.7	-7.2	-6.2	-1.7	-0.6	-0.6	-0.7

(a) People who have one or more natural teeth.

(b) Number of decayed, missing or filled teeth.

Source: AIHW Dental Statistics and Research Unit 2007.

experience, as indexed using the DMFT index (total number of decayed, missing or filled teeth per person). That is, there were only negligible reductions in the DMFT index for the three oldest age groups, whereas average levels of the index halved for the two youngest age groups (Table 27.2).

### Patterns of dental care

Older adults were once characterised as a group that made infrequent dental visits. However, that generalisation is true only for edentulous people: in the 2004–06 survey, only 20% of edentulous people reported having made a dental visit in the preceding year, compared with 62% of dentate people. Among the 64% of people aged 75 years and over who were dentate, two-thirds reported a dental visit within the preceding year, a proportion that did not differ meaningfully from the 86% of those aged 55–74 years who were dentate, and notably higher than the 100% of those aged 15–34 years who were dentate. In other words, within the increasing majority of Australians who are dentate, older age groups were more likely to attend the dentist than younger age groups. Furthermore, during the 17-year interval between surveys, the rate of dental attendance increased most markedly for older adults, for example increasing from 53% to 62% for dentate Australians aged 75 and over (AIHW Dental Statistics and Research Unit 2007).

### Interpretation

Most oral diseases accumulate with age, and therefore conditions such as tooth loss are more extensive and severe in older age. Yet, analysis of trends within generations demonstrates that the reasons for complete tooth loss lie in historical patterns of dental treatment, and are not related to ageing. The 'success' of improved tooth retention that has accompanied improvements in dental treatment has created a 'failure' of oral disease prevention: older adults remain at risk of dental decay and gum disease, and they have levels of untreated and active disease that are equivalent to younger age groups. The trend of increasing rates of dental attendance during a recent 17-year period among older age groups reflects an increased demand for dental care that has been made necessary to treat that 'failure of success' (see Topic 32: *Dental services*). Taken together, the findings illustrate that oral health needs of older Australians will continue to increase into the 21st century.





# Use of health and aged care services

- 28 The Australian health and welfare system
- 29 Care needs and sources of care
- 30 General practitioner services
- 31 Pharmaceuticals
- 32 Dental services
- 33 Hospital use
- 34 Reasons for admission to hospital
- 35 Aged care assessment
- 36 Home and Community Care (HACC) program
- 37 Community Aged Care Packages (CACPs)
- 38 Extended Aged Care at Home (EACH)
- 39 Respite Care
- 40 Residential aged care: resident profiles
- 41 Residential aged care: patterns of use

### Australia's health care system

The Australian health system is complex, with many types of service providers and a variety of funding and regulatory mechanisms. Those who provide services include a range of medical practitioners, other health professionals, hospitals, clinics, and other government and non-government agencies. Funding is provided by the Australian Government, state and territory governments, health insurers, individual Australians and a range of other sources (see also AIHW 2006c).

### Funding health care services

Almost 70% of total health expenditure in Australia is funded by government, with the Australian Government contributing two-thirds of this and state, territory and local governments the other third. The Australian Government's major contributions include the two national subsidy schemes: Medicare and the Pharmaceutical Benefits Scheme. These schemes subsidise payments for services provided by doctors and optometrists, and for a high proportion of prescription medications bought from pharmacies. The Australian Government and state and territory governments also jointly fund public hospital services. Between them, these arrangements aim to give all Australians—regardless of their personal circumstances—access to adequate health care at an affordable cost or no cost. These schemes are further integrated with social welfare arrangements, with larger rebates provided for individuals or families who receive certain income support payments (such as the Age Pension). There are also special health care arrangements for members of the defence forces, and for war veterans and their dependants.

### Health care outside hospitals

Many people's first contact with the health system is through a general medical practitioner (GP) (see Topic 30: *General practitioner services*). People can choose their own GP and are reimbursed for all or part of the GP's fee by Medicare, depending on the GP's billing arrangements. For specialised care, patients can be referred to specialist medical practitioners, other health professionals, hospitals or community-based health care organisations. Community-based services—a range of which can also be accessed directly by patients—provide care and treatment in areas such as mental health, alcohol and other drugs, and family planning.

Australians also visit dentists (see Topic 32: *Dental services*) and other private sector health professionals

of their choice such as physiotherapists, chiropractors and natural therapists. Charges are usually met by the patients themselves or with the support of private health insurance.

### Health care in hospitals

Patients can access public hospitals through emergency departments, where they may present on their own initiative, via the ambulance services, or after referral from a medical practitioner. Public hospital emergency and outpatient services are provided free of charge. Emergency ambulance services are not free of charge for most Australians, but subscription schemes are offered by the ambulance authorities or through private health insurance.

Patients admitted to a public hospital can choose to be treated as public or private patients. Public patients receive treatment from doctors and specialists nominated by the hospital, but are not charged for their care and treatment.

Patients treated in a private hospital—or as a private patient in a public hospital—can select their treating specialist, but charges then apply for all of the hospital's services (such as accommodation and surgical supplies). Medicare subsidises the fees charged by doctors, and private health insurance funds contribute towards medical fees and the hospital costs for insured patients. 'No-gap' or 'known-gap' arrangements are increasingly being agreed on between hospitals and insurers (see Topic 33: *Hospital use* and Topic 34: *Reasons for admission to hospital*).

### Other services

The Australian Government and several state and territory governments have established 24-hour telephone-based health advice services which are staffed by health professionals who answer queries from callers about health problems, assisted by specialised reference software.

Complementing the services outlined above is the provision of public health services, which includes activities to ensure food quality; immunisation services and other communicable disease control; public health education campaigns; injury prevention activities; programs to reduce the use and harmful effects of tobacco, alcohol and illicit drugs; environmental monitoring and control; and screening programs for diseases such as breast cancer and cervical cancer.



## Health insurance

Many Australians purchase health insurance provided by health benefits organisations (more commonly known as private health insurance funds). Hospital insurance schemes cover services in private hospitals as well as services provided in public hospitals for private patients and associated medical services. These are supplemented by other additional schemes that cover a wide range of allied health and other professional services including some alternative/complementary health services. As of late 2005, around 8.8 million Australians (43% of the population) were covered by private health insurance for hospital treatment.

## Regulatory arrangements

The health system is regulated in various ways. State and territory governments are responsible for licensing or registering private hospitals (including free-standing day hospital facilities), medical practitioners and other health professionals; and each state and territory has legislation relevant to the operation of public hospitals. The Australian Government's regulatory roles include overseeing the safety and quality of pharmaceutical and therapeutic goods and appliances, managing international quarantine arrangements, ensuring an adequate and safe supply of blood products, and regulating the private health insurance industry. There is also an established role for governments in the regulation of food safety and product labelling. State and territory governments are also largely responsible for industry regulations, such as for the sale and supply of alcohol and tobacco products which have implications for associated health risks.

## Australia's welfare system

Australia's welfare system consists of programs that are designed to enhance the wellbeing of individuals or communities, and to provide more equal opportunities for participation in the social and economic life of the Australian community. Its main components—income support and the provision of welfare services—are provided through government agencies, non-government organisations or private providers. However, family members and volunteers also provide substantial support and assistance to other Australians and form an intrinsic and invaluable part of the 'welfare' sector. This section outlines the support and services that constitute Australia's formal welfare system, with a focus on those that target, or are mainly used by, older people in the areas of income support, aged care, housing and disability services (see also AIHW 2007c).

## Funding welfare services

The majority (almost 70%) of funding for welfare services is provided by governments. The states and territories contribute 35% and the Australian Government 32%. The remainder of government funding for welfare services is contributed by local governments. In addition, welfare services clients are charged fees for some services, and non-government organisations are sometimes called on to use their own resources to support some of the welfare services they provide.

## Income support

The main source of income support for older Australians is the Age Pension, which is assets and income tested and available to people over the qualifying age (at 30 June 2006, the qualifying age for men was 65, and for women 63). Age pensioners may also be entitled to a range of additional payments and benefits such as the Pharmaceutical Allowance, Rent Assistance, Telephone Allowance, Remote Area Allowance, Utilities Allowance and a Pension Concession Card entitling the holder to medicines at a reduced cost as well as a range of state and local government concessions (see Topic 13: *Age Pension and superannuation*).

The Service Pension, paid to veterans, eligible partners, widows and widowers, is similar to the Age Pension but is generally available 5 years earlier. Other pensions are available from the Department of Veteran's Affairs (DVA) which are compensation payments (such as the Disability Pension and the War Widows' Pension), and are neither taxable nor subject to means testing.

Regardless of the source of their income, older Australians of Age Pension age, are entitled to the income-tested Senior Australians' Tax Offset, and may be exempted from the Medicare levy. The Pension Bonus Scheme provides an incentive for older Australians to defer claiming the Age Pension and instead to remain in the workforce.

Older people who are carers may be able to access two government payments, depending on their circumstances. The Carer Payment is an income support benefit payable to people who, because of their caring responsibilities, are unable to support themselves. For people of pension age it is an alternative to, and equivalent to, the Age Pension. The Carer Allowance is payable to carers who provide full-time daily care at home to people who need substantial amounts of care because of a disability or a severe medical condition or because they are frail older people (see Topic 9: *Care provided by older people*).

The Australian Government is the main source of income support for people with disability and for their carers, through the Disability Support Pension, Mobility Allowance, Sickness Allowance, Carer Allowance, Carer Payment, Wife Pension, Disability Pension, and other allowances.

## Provision of aged care services

The Australian aged care system is characterised by a mix of types of provision and a high degree of cooperation between all levels of government, service providers and the community. The non-government sector has a long history in the provision of aged care and continues to provide the majority of residential service provision as well as community care services. Private sector involvement in aged care is mostly through high care residential services (see Topic 41: *Residential aged care: patterns of supply and use*).

The Australian Government has the major role in funding residential aged care services and aged care packages in the community. It establishes the policy directions in consultation with state and territory governments and the aged care industry and consumers, and provides the bulk of administrative support.

State and territory governments have a regulatory role in the residential aged care sector, in areas such as building compliance and fire safety regulations, and occupational health and safety requirements. State and territory governments administer the Home and Community Care (HACC) Program through an agreement with the Australian Government and directly operate some residential aged care services. Together the Australian Government and the state and territory governments provide funding for the HACC and the Aged Care Assessment Program.

Local governments provide some residential aged care services and community care services, as well as having a regulatory role.

## Community and flexible aged care services

Community aged care services aim at enhancing the independence of frail older people or older people with disability, and delay or remove the need for entry to residential aged care services.

The bulk of home- and community-based services for older people are provided under the Home and Community Care (HACC) Program. The program includes home nursing services, delivered meals, home help and home maintenance services, transport and shopping assistance, allied health services, home- and centre-based respite care, and advice and assistance

of various kinds. It is jointly funded by the Australian Government and the state and territory governments (see Topic 36: *Home and Community Care Program*).

Veterans' Home Care (VHC) delivers in-home support services to eligible veterans, war widows and war widowers. The Program provides personal care assistance, domestic assistance, home and garden maintenance and respite care. Eligible people who need higher amounts of personal care or community nursing may be referred to the DVA Community Nursing program. Except for respite care, clients are required to pay a co-payment for VHC services.

Community Aged Care Packages (CACPs) provide support services to older people with complex needs living at home who would otherwise be eligible for admission to at least 'low-level' residential care. They provide a range of home-based services, excluding home nursing assistance (which may, however, be provided through HACC), with care being coordinated by the package provider. The CACP program is solely funded by the Australian Government. Clients may be asked to contribute towards the cost of their care (see Topic 37: *Community Aged Care Packages*).

The Extended Aged Care at Home (EACH) program aims at delivering care at home that is equivalent to high-level residential care. Clients may be asked to contribute to the cost of their care, as with the other community care programs. The program has been extended to include EACH Dementia packages which are designed to meet the needs of frail older people with dementia who experience behavioural and psychological symptoms associated with dementia. Many of the services available to EACH recipients are similar to those provided to CACP recipients (see Topic 38: *Extended Aged Care at Home*).

The Australian Government also provides other flexible aged care services, sometimes in partnership with other stakeholders, through:

- Multi-Purpose Services in rural and remote communities
- services under the National Aboriginal and Torres Strait Islander Flexible Aged Care Program
- a short-term Transition Care Program for older people who have been in hospital, which aims at meeting their rehabilitation, recovery and care needs
- Aged Care Innovative Pool funding, which supports and evaluates pilot services or projects that will provide aged care services in new ways, including at the interface between aged care and other types of care.

## Respite care

Respite care may be provided in the home, at a centre during the day, or in a residential service (see Topic 39: *Respite care*). It is used by older people living in the community including HACC, VHC and CACP recipients. Respite services can also be accessed through the National Respite for Carers Program, which provides information and support for carers as well as respite care.

## Residential care services

Residential aged care services provide accommodation and support for older people who can no longer live at home. Two levels of care are available (low and high) and short-term respite care services are also available. All residential care services are required to meet a number of national standards. Residential aged care is mainly funded by the Australian Government, via daily subsidies. In addition, all residents pay fees, including an income-tested component, and government subsidies for individual permanent residents are reduced in line with the income-tested fees paid by residents (see Topic 40: *Residential aged care: resident profiles* and Topic 41: *Residential aged care: patterns of supply and use*).

## Accessing aged care services

A network of Commonwealth Carelink Centres provide a single point of contact for obtaining comprehensive information on community aged care, residential care, disability and other support services available in any region within Australia. The centres are operated by a wide range of organisations, including not-for-profit and for-profit non-government organisations, and government agencies.

Aged Care Assessment Teams (ACATs) play a crucial role in the aged care system across Australia as they determine eligibility for CACP, EACH, EACH Dementia, the TCP and residential aged care. They also function as a source of advice and referral concerning HACC services but do not determine eligibility for these services, although many clients assessed by ACATs are recommended for HACC services (see Topic 35: *Aged care assessment*).

Provision of VHC services is based on assessed need. Assessments are undertaken by designated regional assessment agencies, which also arrange for the services to be provided. Veterans and war widow(er)s are eligible to be assessed for the full range of services provided under HACC, through arrangements with state and territory governments, and can access different services from both programs at the same time.

An ACAT assessment is not required for people accessing respite through the National Respite for Carers Program; there are, however, assessment procedures within the program with the focus being on primary carers and the relative need of clients. However, an ACAT assessment is required for people accessing residential respite in aged care homes.

To enter residential care, people must have an assessment and approval for such care by an ACAT. ACAT approval is also required for people moving between low and high permanent residential aged care facilities.

The Assistance with Care and Housing for the Aged initiative links generally low income, frail older people in insecure housing with appropriate community care and housing services.

## Housing assistance

Key areas of assistance are the Commonwealth Rent Assistance program, which provides an income support payment for private renters linked to the eligible household's private rental costs; public rental housing; community housing managed by not-for-profit organisations; and various types of home ownership assistance aimed at lower income households including the First Home Owners Grant, low start loans, capital indexed loans and shared equity schemes (see Topic 4: *Housing*).

## Disability

Older people with disability have access to the range of community care and aged care services discussed above (see Topic 17: *Disability levels* and Topic 29: *Care needs and sources of care*). Disability support services provided under the Commonwealth State/Territory Disability Agreement, which include accommodation support services, community support services, community access services, respite services and employment services, are generally aimed at younger people.

The relationship between disability, health and age is not necessarily straightforward, even though at first glance it may seem so because of the general tendency for the prevalence of certain health conditions and of disability to increase with age (see topics in Section 3). In the older age groups, illnesses affecting human functioning become more prevalent, including cardiovascular diseases, arthritis and dementia.

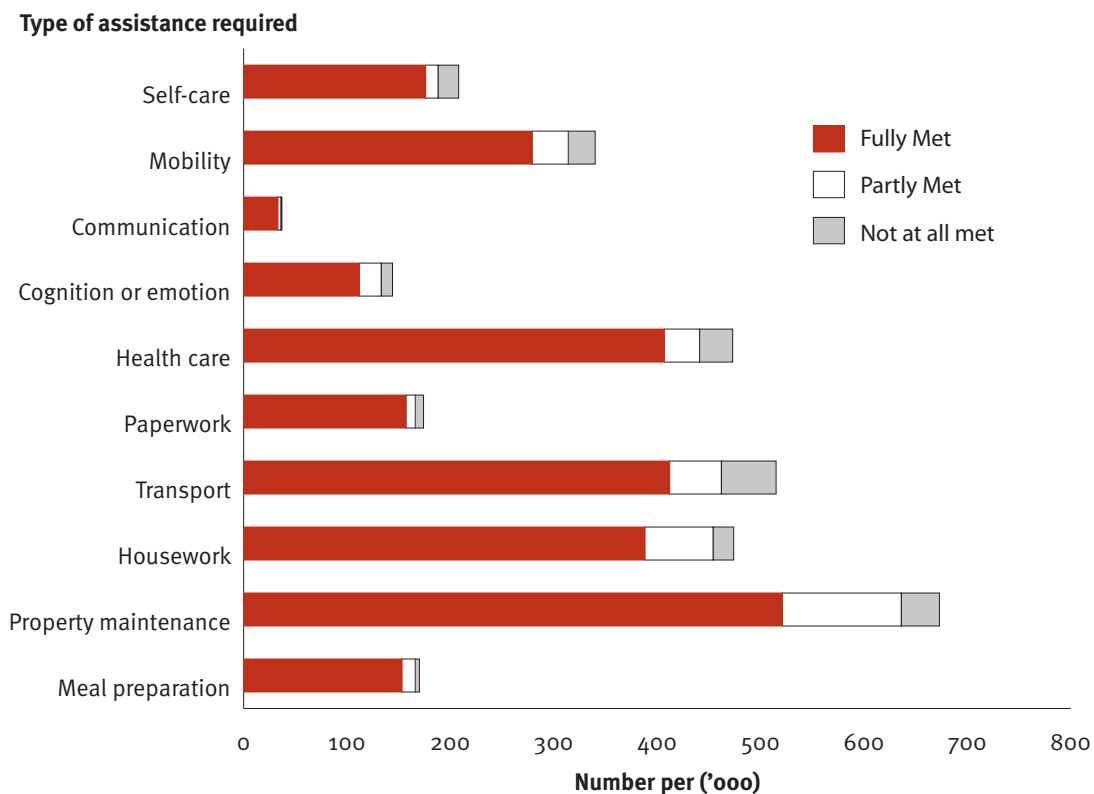
People with disability in older age groups need more frequent assistance than younger people and with more core activities. Older people also had more health conditions associated with disability (AIHW 2005b). Other factors which change the environment and circumstances of older people, such as loss of a spouse, technological change or surrendering a driver's licence, may also result in older people needing assistance with certain activities in order to support their capacity for community living.

**Care needs and unmet need**

The expression of need for services is shaped by the experiences, attitudes and beliefs of people, and therefore can be affected by what is known to be available or the perceived adequacy or accessibility of what is available. In addition, social and cultural norms can influence the likelihood of someone expressing a need for assistance, and interpersonal dynamics, such as the relationship between a carer and a care recipient, can affect the way need for assistance is experienced and expressed (Braithwaite 1996; AIHW: Jenkins 1999). Bearing these cautions in mind, reported need for assistance provides a valuable point-in-time account of need and unmet need.

The Survey of Disability, Ageing and Carers (SDAC) conducted by the ABS in 2003 (ABS 2004b) found that 43% (1,004,400 persons) of the 2.3 million people aged 65 years and over living in households expressed a need for some form of assistance to help them stay

**Figure 29.1: People aged 65 and over living in households, whether need for assistance was met, by type of assistance required, 2003**



Source: Table A29.1.

at home (Table A29.1). The most common area of need was property maintenance (29%) followed by transport (22%), housework (20%) and healthcare (20%) (Table A29.1 and Figure 29.1). Approximately 26% needed some assistance with personal activities, such as self-care, mobility, communication, cognition or emotion, and health care.

A higher proportion of women than men aged 65 years and over required assistance for all activities except communication, a result which is consistent with their older age profile; overall 50% of women needed assistance with at least one activity compared with 35% of men. Areas of greatest difference between men's and women's need for assistance were property maintenance (35% of women and 21% of men), housework (26% of women and 14% of men) and transport (26% of women and 17% of men).

Unmet need occurs when a person does not have sufficient assistance with activities where help is required. Almost two-thirds of older people who needed assistance with at least one activity (64% or 646,500) feel that their needs were fully met, over one-quarter (31% or 306,100) report that their needs were partly met, and 5% (51,800) report that none of their needs was met, even partially (Table A29.1).

The areas with the highest proportions of older people reporting that their need for assistance was fully met were paperwork and meal preparation (90%) and communication (89%). Transport and self-care were the areas with the highest proportions of older people feeling that their need for assistance was not met at all (10% each of people requiring assistance with transport and with self-care).

## Providers of assistance

Informal care networks of friends and family provide most of the assistance received by older people in the community. Among those receiving assistance, 83% received help from informal providers, and 64% received help from formal providers (including government organisations as well as private for-profit and private not-for-profit agencies) (Table 29.1). Overall, 47% of older people received assistance from both informal and formal sources. Informal providers were the major source of support for communication and paperwork: 98% of those receiving assistance for these activities were being helped by informal providers. The lowest proportions receiving assistance from informal providers were in the area of health care (54% of recipients). For most activities, between 15% and 25% of those needing

and receiving assistance were getting help from both formal and informal sources. Among older people with disability who need assistance to manage their bladder or bowel control and live in households around 50% relied on informal self-care assistance, and another 26% used a mixture of informal and formal self-care assistance (AIHW analysis, ABS 2004a).

Among informal providers, there are clear gender and relationship differences (Table 29.1). Informal carers are predominantly female partners or daughters/daughters-in-law across most activities—the one exception being property maintenance. There are also clear gender differences in the types of assistance provided by informal carers. This is true for informal carers who are partners but is more pronounced between daughters and sons. In 2003, daughters/daughters-in-law were twice as likely as sons/sons-in-law to provide assistance for all activities except property maintenance. Interestingly, male partners were more commonly recorded as providing assistance with housework than female partners, although this possibly reflects dominant gender roles and the expectation that, for women, performing the bulk of household duties is part of their routine responsibilities.

Among formal providers, data from the 2003 SDAC indicate that government-owned agencies predominate across most activities. However, these figures may overstate the use of government providers because respondents may not be able to distinguish between government and non-government services. For example, most Home and Community Care services are provided by non-government agencies, even though the program is funded by governments. Areas where a greater proportion of people reported using non-government rather than government services were health care (the only area where more people received help from a formal rather than an informal provider) and property maintenance, both of which showed a clear majority of people who received this type of service getting assistance from a private for-profit source.

Data in Table 29.1 do not convey the total amount or frequency of help provided to older Australians living in the community. For instance, the greatest number of older people in the community need and receive assistance with property maintenance, yet the nature of property maintenance tasks means that this assistance is likely to be single episodes of short duration. In contrast, activities such as meal preparation or personal care typically occur on a daily basis for sustained periods of time.



## Informal care

With the growing emphasis on home-based care, informal care by family, friends and neighbours is increasingly being recognised as an important source of support to people of all ages (see also Topic 9: *Care provided by older people*). Carers play a key role in assisting older people to remain in the community and the need for this support is expected to increase. In addition to providing direct assistance, a carer may also act as a 'bridge' to formal services. For example, results from the 2002 Community Aged Care Packages Census (AIHW 2004b) show that 58% of those with a carer were receiving CACP assistance with personal care compared with only 48% of those without a carer.

According to the 2003 SDAC, there were 472,500 primary carers in 2003, where a primary carer is defined as the person who provides the most ongoing informal assistance with core activities (self-care,

mobility, communication) to a person with one or more disabilities. Of these, around 239,400 were providing assistance to persons aged 65 years and over, and 113,200 were themselves aged 65 years and over (AIHW 2005b). A substantial proportion of primary carers of older people are also over the age of 65 (40% in 2003), and 87% are aged 45 years and over.

Women made up over two-thirds (69%) of primary carers of older people (AIHW analysis, ABS 2004a). Older men were most likely to be cared for by a female carer aged 65 years and over. The predominance of older female carers was more marked for men aged 75 years and over than among men aged 65–74 years. Women aged 65–74 years were most commonly cared for by an older male, and women aged 75 years and over were most likely to be cared for by a female carer aged 25–64 years, although older male carers were also important in this age group.

**Table 29.1: Source of assistance received by people aged 65 and over living in households, 2003**

Provider type	Per cent										
	Self-care	Mobility	Com- muni- cation	Cognition or emotion	Health care	Paperwork	Transport	Housework	Property main- tenance	Meal prep- aration	Any activity
<b>Informal</b>											
Female partner	30.2	19.1	33.4	25.7	18.6	23.4	13.4	15.3	11.2	24.5	18.5
Male partner	23.4	19.0	*9.1	13.7	11.9	11.5	16.4	19.5	15.3	16.8	18.2
Daughter/ daughter-in-law	24.8	35.1	47.1	37.4	14.7	39.0	36.8	23.5	14.7	32.7	29.0
Son/son-in-law	11.0	22.5	*22.5	16.5	5.3	20.8	24.5	11.7	26.4	13.2	26.0
Other female <sup>(a)</sup>	*5.5	11.9	*8.0	9.2	4.4	6.2	11.9	7.0	3.3	7.7	10.7
Other male <sup>(b)</sup>	*3.5	7.6	*7.4	*4.7	2.6	6.3	8.1	3.4	12.0	*3.5	12.8
<i>Total informal</i>	89.1	93.8	98.4	93.6	54.2	97.5	93.4	70.6	71.6	86.7	83.0
<b>Formal</b>											
Government	18.4	16.6	**4.4	12.0	26.3	*2.2	8.4	29.8	9.3	14.6	31.1
Private non-profit	6.6	7.1	**1.9	*1.7	6.4	**1.0	3.6	6.8	6.4	*5.3	10.6
Private for-profit	*4.8	4.3	**1.5	19.5	37.9	*2.9	4.8	15.3	36.4	*4.4	42.0
<i>Total formal</i>	28.8	26.6	*7.8	29.1	65.9	*6.1	16.0	51.0	49.7	24.3	63.7
<b>Both informal &amp; formal</b>											
	<b>17.9</b>	<b>20.3</b>	<b>6.2</b>	<b>22.7</b>	<b>20.1</b>	<b>3.6</b>	<b>9.4</b>	<b>21.5</b>	<b>21.3</b>	<b>11.1</b>	<b>46.7</b>
<b>Number</b>	<b>187,900</b>	<b>313,500</b>	<b>36,200</b>	<b>133,100</b>	<b>441,600</b>	<b>166,600</b>	<b>462,500</b>	<b>453,600</b>	<b>635,400</b>	<b>166,100</b>	<b>952,600</b>

\* Estimate has a relative standard error of 25% to 50% and should be used with caution.

\*\* Estimate has a relative standard error greater than 50% and is considered too unreliable for general use.

(a) Includes mother, other female relative and female friend or neighbour.

(b) Includes father, other male relative and m

Source: AIHW analysis, (ABS 2004a).



General practitioners (GPs) play a significant role in the lives of many older people as primary health-care providers and as a point of referral to other health services. Most Australians (about 85%) will see their GP at least once in any year (AIHW: Britt et al. 2007). Information about the use of GPs by older people complements that from national health surveys, hospital services, aged care services and the mortality database, as indicators of population health and wellbeing.

### Use of GPs by older people

By far the majority of visits to GPs by Australians of all ages are funded through the Commonwealth Medicare Benefits Schedule (MBS) (AIHW: Britt et al. 2007). During the financial year 2005–06 there were over 90 million unreferral attendances, or visits, paid by Medicare (A1 and A2 items), at an average rate of 4.6 visits per person (Table 30.1). Approximately 25% (23.6 million) of these attendances were older patients.

Older Australians use the services of GPs more often than younger people. For older Australians the average number of visits was 8.6 per person in 2005–06 compared with about 4.0 per person for people aged under 65 (Table 30.1). Although rates of use increased with age and were highest for people aged 85 years and over, visits in this oldest age group represented less than 4% of all visits to the GP. Table 30.1 also shows that for each age group, older women were more likely than older men to use the services of a GP.

### Most frequent patient reasons for GP–patient encounters

Since 1998, Australia has had national data available on the types of services provided by GPs through a survey of general practice activity involving around 1,000 recognised practising GPs from across the country each year. Called the BEACH (Bettering the Evaluation and Care of Health) survey, it records where, how and what type of services are delivered by general practitioners each year (AIHW: Britt et al. 2005). BEACH provides data about ‘encounters’, which include face-to-face consultation of a patient with a GP, and indirect encounters, such as where the GP provides a clinical service (for example, a repeat prescription or a referral) without seeing the patient face-to-face.

Table 30.2 shows the most frequent reasons given by patients aged 65 years and over for their encounter with the GP. The reasons for encounter are those concerns and expectations that patients bring to the GP. Participating GPs were asked to record at least one and up to three reasons for encounter in words as close as possible to those used by the patient, before the diagnostic or management process had begun. These reflect patients’ views of their reasons for consulting the GP.

**Table 30.1: Use of GPs by Australians, by age and sex, 2005–06**

Age	Males	Females	Persons
Under 55	24,056,261	33,890,993	57,947,254
55–64	5,736,891	7,161,150	12,898,041
65–74	5,311,958	6,145,708	11,457,666
75–84	3,674,296	5,258,777	8,933,073
85 and over	842,433	2,378,888	3,221,321
<b>Total 65 and over</b>	<b>9,828,687</b>	<b>13,783,373</b>	<b>23,612,060</b>
<b>Total</b>	<b>39,621,839</b>	<b>54,835,516</b>	<b>94,457,355</b>
	Rate (per 1,000 population)		
Under 55	3,051	4,393	3,715
55–64	5,031	6,320	5,673
65–74	7,614	8,436	8,034
75–84	8,650	9,646	9,210
85 and over	7,589	10,480	9,531
<b>Total 65 and over</b>	<b>7,969</b>	<b>9,185</b>	<b>8,636</b>
<b>Total</b>	<b>3,863</b>	<b>5,299</b>	<b>4,584</b>

Note: Data relate to unreferral attendances paid by Medicare for Group A1 General Practitioner items and Group A2 Other non-referred items.

Sources: Medicare Australia 2007; ABS 2006d.

Overall, there were 158 individual reasons for every 100 encounters for older men and 163 for older women (Table 30.2). The 15 most commonly recorded reasons for the encounter in general practice account for about a half of all reasons given.

The most frequent reasons given by older patients were to obtain a prescription, a request for a check-up (both about 20 per 100 encounters), and to receive test results (about 8 per 100 encounters). Immunisation, cough, hypertension and back complaint also ranked highly for older men and older women. Rash was the main reason given for 2 out of every 100 encounters, slightly more often than skin symptom/complaint. Diabetes was the main reason given in 2.1 per 100 encounters for older men and 1.7 per 100 encounters for older women. Depression (not listed in Table 30.2) accounted for 0.9 per 100 encounters in older men and 1.4 per 100 encounters in older women.

## Most frequently managed problems

In the BEACH survey, participating GPs can record up to four problems managed through each GP–patient encounter. A ‘problem managed’ is a formal statement of the provider’s understanding of a health problem presented by the patient, family or community, and can be described in terms of a disease, symptom or complaint, social problem or ill-defined condition managed at the encounter (AIHW: Britt et al. 2005).

The average number of problems managed at encounters increases steadily with patient age and is generally higher for female patients than for male patients. Overall, there were 167 problems managed per 100 encounters for older men and 173 for older women (Table 30.3). The 20 most frequently managed individual problems in general practice account for just over a half of all problems managed.

**Table 30.2: Most frequent patient reasons for encounter by people aged 65 and over, by sex, 2005–06**

Rank	Males			Females		
	Number	Rate per 100 encounters	Number	Rate per 100 encounters	Number	Rate per 100 encounters
1	Check-up—all	2,414	20.4	Prescription—all	3,125	20.8
2	Prescription—all	2,310	19.5	Check-up—all	2,964	19.7
3	Test results	997	8.4	Test results	1,189	7.9
4	Immunisation—all	837	7.1	Immunisation—all	1,081	7.2
5	Cough	528	4.5	Cough	596	4.0
6	Hypertension	379	3.2	Hypertension	542	3.6
7	Back complaint	313	2.6	Back complaint	539	3.6
8	Diabetes	247	2.1	Rash	298	2.0
9	Rash	235	2.0	Skin symptom/complaint	271	1.8
10	Skin symptom/complaint	235	2.0	Vertigo/dizziness	266	1.8
11	Administrative procedure NOS	221	1.9	Leg/thigh symptom/complaint	260	1.7
12	Blood test NOS	221	1.9	Knee symptom/complaint	257	1.7
13	Shortness of breath, dyspnoea	210	1.8	Diabetes	250	1.7
14	Knee symptom/complaint	183	1.5	Blood test NOS	237	1.6
15	Blood test blood/lymph	170	1.4	Administrative procedure NOS	230	1.5
	<i>Total (15 leading reasons)</i>	<i>9,501</i>		<i>Total (15 leading reasons)</i>	<i>12,104</i>	
	<i>Total reasons 65+</i>	<i>18,629</i>	<i>157.6</i>	<i>Total reasons 65+</i>	<i>24,431</i>	<i>162.6</i>
	<i>Total encounters 65+</i>	<i>11,822</i>	<i>100.0</i>	<i>Total encounters 65+</i>	<i>15,024</i>	<i>100.0</i>

Note: NOS = not otherwise specified. ‘Check-up—all’ includes, for example, cardiac check-up, general check-up, skin check-up.

Source: AIHW analysis of 2005–06 BEACH database.

The top five problems managed by GPs for both older men and women are hypertension, immunisation, diabetes, osteoarthritis and lipid disorders (Table 30.3). Diseases of the cardiovascular system, skin, and musculoskeletal (osteoarthritis, back complaint) and respiratory systems are also relatively common problems. Also common are oesophagus disease, sleep disturbance, depression, dementia (2.3 per 100 encounters for older women, 1.4 for older men) and urinary tract infection (3.2 per 100 encounters for older women, 1.3 for older men).

Many of the most common problems managed in older Australians are chronic in nature and are largely preventable—problems such as hypertension, heart disease, some forms of diabetes and osteoarthritis (see also Topic 31: *Use of pharmaceuticals*). Australia's

National Chronic Disease Strategy provides national direction for improving chronic disease prevention and care across Australia. One of its key directions is to encourage primary health care, particularly general practice, to engage in early intervention, through appropriate screening and identification of risk factors, and support for self-management (NHPAC 2006).

### Annual health checks for older people

Voluntary annual health assessments arranged and performed by general practitioners are important for early intervention and monitoring of chronic health conditions in the older population. These Medicare-funded assessments are available to all people aged 75 years and over and to Aboriginal and Torres Strait Islander peoples aged 55 years and over, and can

**Table 30.3: Most frequently managed problems by GPs for people aged 65 and over, by sex, 2005–06**

Rank	Males			Females		
	Number	Rate per 100 encounters	Number	Rate per 100 encounters	Number	Rate per 100 encounters
1	Hypertension	2,185	18.5	Hypertension	3,068	20.4
2	Diabetes	973	8.2	Immunisation—all	1,138	7.6
3	Immunisation—all	867	7.3	Osteoarthritis	1,033	6.9
4	Lipid disorders	673	5.7	Diabetes	873	5.8
5	Osteoarthritis	575	4.9	Lipid disorders	806	5.4
6	Ischaemic heart disease	567	4.8	Prescription—all	579	3.9
7	Atrial fibrillation/flutter	404	3.4	Oesophagus disease	576	3.8
8	Oesophagus disease	403	3.4	Osteoporosis	573	3.8
9	Prescription—all	374	3.2	Sleep disturbance	485	3.2
10	General check-up	369	3.1	Urinary tract infection	475	3.2
11	Malignant neoplasm skin	322	2.7	Depression	474	3.2
12	Solar keratosis/sunburn	302	2.6	Atrial fibrillation/flutter	388	2.6
13	Chronic obstructive pulmonary disease	300	2.5	Back complaint	380	2.5
14	Acute bronchitis/bronchiolitis	297	2.5	General check-up	354	2.4
15	Sleep disturbance	272	2.3	Dementia (incl senile, Alzheimer's)	350	2.3
16	Heart failure	268	2.3	Ischaemic heart disease	340	2.3
17	Malignant neoplasm prostate	265	2.2	Acute bronchitis/bronchiolitis	330	2.2
18	Back complaint	252	2.1	Anxiety	325	2.2
19	Depression	231	2.0	Solar keratosis/sunburn	320	2.1
20	Cardiac check-up	231	2.0	Chronic ulcer skin (incl varicose ulcer)	294	2.0
	<i>Total (20 leading problems)</i>	<i>10,130</i>		<i>Total (20 leading problems)</i>	<i>13,160</i>	
	<i>Total problems 65+</i>	<i>19,742</i>	<i>167.0</i>	<i>Total problems 65+</i>	<i>25,963</i>	<i>172.8</i>
	<i>Total encounters 65+</i>	<i>11,822</i>	<i>100.0</i>	<i>Total encounters 65+</i>	<i>15,024</i>	<i>100.0</i>

Source: AIHW analysis of 2005–06 BEACH database.

involve referral to other health professionals, such as a physiotherapist, dietician or occupational therapist. Patients may agree to a home visit for an assessment of home safety and equipment needs. Assessment covers the medical, physical, psychological and social aspects of health and pays close attention to whether preventive health care and education should be offered. It provides an opportunity for older people to discuss with a GP any area of concern about their health.

Over 240,000 such services were recorded in 2005–06 (Table 30.4). Just over half the assessments were performed in doctors' consulting rooms; the rest were performed in other settings, which may include the patient's home.

Assessments were received by approximately 191 per 1,000 people aged 75 years and over. Assessments were accessed by relatively more people aged 75–84 years than people aged 85 years and over, and relatively more women than men. A lower rate of assessment of people aged 85 and over (150 assessed per 1,000 population) compared with that of people aged 75–84 years (204 assessed per 1,000 population) may in part reflect the greater propensity of the very old to live in residential settings where there is ongoing access to nursing care (comprehensive medical assessment for new and existing residents in aged care homes is funded under a Medicare item different from voluntary health assessments for older people).

**Table 30.4: Voluntary annual health assessments for people aged 75 and over<sup>(a)</sup>, by sex, 2005–06**

Sex/age	Location of assessment			Total services	Rate per 1,000 population <sup>(d)</sup>
	In GP consulting rooms <sup>(b)</sup>	Other <sup>(c)</sup>			
<b>Males</b>					
75–84	45,470	34,687		80,157	193
85+	6,678	7,552		14,230	140
Total	52,148	42,239		94,387	183
<b>Females</b>					
75–84	58,566	56,022		114,588	212
85+	14,014	19,107		33,121	155
Total	72,580	75,129		147,709	196
<b>Persons</b>					
75–84	104,036	90,709		194,745	204
85+	20,692	26,659		47,351	150
Total	124,728	117,368		242,096	191

(a) 242,098 assessments of people aged 75 and over under MBS item numbers 700 and 702 (table excludes 2 cases with unknown patient age). An additional 2,517 assessments were performed for Aboriginal and Torres Strait Islander peoples aged 55 and over, under different item numbers.

(b) MBS item no. 700.

(c) MBS item no. 702.

(d) Based on the estimated resident population aged 75 and over at 30 June 2005.

Source: AIHW analysis of Medicare statistics (data downloaded from <www.medicare.gov.au> on 5 April 2007); ABS 2006d.

Medications are commonly used by older Australians to treat and manage illness and health conditions. Broadly defined, these include prescription pharmaceuticals, over-the-counter medications and vitamins and minerals. Prescription pharmaceuticals are provided through pharmacies and hospitals, with a wide range subsidised under the Pharmaceutical Benefits Scheme (PBS).

### Prescribing patterns

#### Age

The level of use of pharmaceuticals generally increases with age. Data from the Bettering the Evaluation and Care of Health survey (BEACH) show that the number of prescriptions written at each encounter with a general practitioner rises with advancing age of the patient (AIHW: Britt et al. 2007). About 60 per 100 encounters with patients aged 25 years and under resulted in the provision of a prescription in 2005–06—for those aged 65 years and over the rate rose to over 100 per 100 encounters.

### Types of medications prescribed

Data from the BEACH surveys of general practitioners reveal the types of medications prescribed to older Australians, and how prescriptions for these medications have changed over time. An important caveat for interpreting the results of the BEACH survey should be noted—a prescription, irrespective of the number of repeats ordered, is counted only once.

The results of the 2005–06 survey show that women and men aged 65 and over were prescribed medications at similar rates (131 and 123 per 100 encounters, respectively). Antihypertensive medication, for the treatment of high blood pressure, was the most frequently prescribed medication for both sexes (Table 31.1). With a prescription rate of almost 19 per 100 encounters, antihypertensives were prescribed at more than double the rate of the next most common medication (simple analgesics for women, immunisation for men).

Other common medications prescribed to both sexes were other cardiovascular system drugs (7.4 per 100 encounters for males, and 6.3 for females), beta-

**Table 31.1: Top 15 groups of medications prescribed for people aged 65 and over, by sex, 2005–2006**

Rank	Males	Rate per 100 encounters	Females	Rate per 100 encounters
1	Antihypertensive	18.5	Antihypertensive	18.8
2	Immunisation	8.4	Simple analgesics	8.7
3	Other cardiovascular system drugs <sup>(a)</sup>	7.4	Immunisation	8.4
4	Simple analgesics	6.9	Other cardiovascular system drugs <sup>(a)</sup>	6.3
5	Hypoglycaemic agents	5.7	Diuretics	5.1
6	Antilucerant	4.8	Non-steroidal anti-inflammatory drugs (NSAIDs)	4.6
7	Beta-blockers (for cardiovascular problems)	4.6	Beta-blockers (for cardiovascular problems)	3.9
8	Non-steroidal anti-inflammatory drugs (NSAIDs)	4.3	Hypoglycaemic agents	3.9
9	Other blood drug <sup>(b)</sup>	4.2	Sedative/hypnotic	3.6
10	Penicillin/cephalosporins	3.2	Penicillin/cephalosporins	3.6
11	Broad spectrum penicillin	2.8	Narcotic analgesics	3.5
12	Narcotic analgesics	2.8	Other antibiotics <sup>(c)</sup>	3.4
13	Other antibiotics <sup>(c)</sup>	2.7	Nutrition/metabolism/other	3.3
14	Bronchodilator/spasm relaxant	2.6	Antidepressants	3.1
15	Anti-angina	2.6	Anti-anxiety agents	2.9
	Total prescribed (all medication groups)	122.9	Total prescribed (all medication groups)	131.4

(a) Cardiovascular system drugs other than antihypertensive, anti-arrhythmic, anti-angina, cardiac glycoside, beta-blocker, adrenergic stimulant, peripheral vasodilator, antimigraine and hypolidaemic agents.

(b) Blood drugs other than haemopoietic.

(c) Antibiotics other than penicillin/cephalosporin, broad spectrum penicillin, tetracycline, antifungal, sulphonamide and anti-infective.

Source: AIHW analysis of 2005–06 BEACH data.

blockers and non-steroidal anti-inflammatory drugs. The greatest difference in prescription rates for older women and men, (for medications which were in the top 15 prescribed for both sexes) were for simple analgesics and hypoglycaemic agents (a difference of 1.8 encounters for both medication groups). Simple analgesics were prescribed at the higher rate for women, and hypoglycaemic agents were prescribed at the higher rate for men.

Differences in the types of medications prescribed to older women and men reflected the most frequent types of problems managed by GPs for each sex (see Topic 30: *General practitioner services*). Medications for mental wellbeing were among the top 15 prescribed medications for older women, but not for men. Sedative/hypnotic medication, anti-depressants and anti-anxiety medications were prescribed to older women at a rate of around 3–4 out of every 100 encounters. Other medications that were in the top 15 for one sex but not for the other included anti-ulcerant medication for older men and diuretic medication for older women.

### Trends in medications prescribed

Prescriptions for the majority of medication groups have risen since the 2000–01 BEACH survey (which was reported in the previous edition of this publication). The total prescription rate rose by an average of 5.6 per 100 encounters for both older women and older men. Most notable is the rise in prescriptions for immunisation. A prescription or provision of an immunisation occurred in 8.4 per 100 encounters for both sexes—an increase of 4.5 encounters since 2000–01. The majority of immunisation prescriptions were for protection against influenza, which reflects government policy to promote flu vaccination to older people. The National Influenza Vaccine Program for Older Australians provides free influenza (and pneumococcal since 2005) vaccinations to Australians aged 65 years and over and to Indigenous Australians aged 50 years and over.

In contrast to the rise in immunisation provisions, prescriptions for non-steroidal anti-inflammatory drugs (NSAIDs) fell considerably since 2000–01. A decline from 7.3 to 4.6 per 100 encounters was noted for women and from 6.6 to 4.3 for men. This decline may, in part, reflect tightened Therapeutic Goods Administration measures on the prescribing of anti-arthritis drugs known as Cox-2 inhibitors (a type of NSAID) (Therapeutic Goods Administration 2005). The 2004–05 general practice activity report (AIHW: Britt et al. 2005) identified that the withdrawal of rofecoxib (a Cox-2 inhibitor) from the market had an impact on the prescription rate of NSAIDs.

Small declines in the prescriptions of other medication groups were gender-specific. Prescriptions for antidepressants and anti-anxiety agents fell slightly for women, and bronchodilator/spasm relaxant, diuretic and anti-angina medications declined for men.

### Prescriptions for dementia

Prescription rates for medications for dementia are recorded by the PBS and the Repatriation Pharmaceutical Benefits Scheme (RPBS). Three dementia-specific drugs (anticholinesterases) are funded under the two schemes: Donepezil, Galantamine and Rivastigmine (AIHW 2007e). In 2004–05, there were 315,020 prescriptions under the PBS/RPBS for these drugs, with prescriptions for Donepezil making up the majority (66%).

## Medication use

### National Health Priority Area conditions

The 2004–05 ABS National Health Survey collected self-report data about medication use (both prescription pharmaceuticals and other medications) for National Health Priority Area conditions. National Health Priority Areas are cancer control, injury prevention and control, cardiovascular health, diabetes mellitus, mental health, asthma, and arthritis and musculoskeletal conditions. The most commonly used medications for priority conditions by people aged 65 years and over were medications for heart conditions (Table 31.2). Over 500 per 1,000 older people took medication for a heart condition in 2004–05; with the rate of use peaking at 600 per 1,000 persons aged 75–84 years.

Medications for arthritis—the second most common medication for priority conditions—were taken by just over 300 per 1,000 older people. Like medications for heart conditions, use of arthritis medication peaked at ages 75–84 years. The usage rate of medication for mental well-being, however, continued to increase with increasing age, with 280 per 1,000 people aged 85 years and over taking medication for mental wellbeing in 2004–05 (see Topic 23: *Mental health*).

Medications for diabetes and asthma were used at much lower rates than the medications used for the other health conditions. Just over 95 per 1,000 older people took medication for diabetes and 70 per 1,000 took medication for asthma.



## Polypharmacy

Polypharmacy, the use of multiple medications at a time, is common among older people. The use of multiple medications increases with age. A South Australian survey (Goldney R & Fisher L 2005) found that 25% of people aged 65 years and over used four or five medicines concurrently. Although polypharmacy is often necessary for people with many health conditions (and may be the best treatment), it increases the risk of adverse events that can lead to hospitalisation. Data from the Australian Council for Safety and Quality in Health Care (2002) (now the Australian Commission on Safety and Quality in Health Care) show that for older people, approximately one in five unplanned admissions to hospital are medication-related.

## Expenditure

The PBS, funded by the Australian Government, provides a subsidy for over 800 drug substances (AIHW 2006c). Subsidies are provided to the public at a general and concession rate. People who hold a

Pensioner Concession Card, Commonwealth Seniors' Health Card or Australian Government Health Care Card are eligible for concession benefit. Australians who are veterans, war widows or widowers and dependants may additionally be eligible for the RPBS. The White, Gold and Orange Cards issued by the Department of Veterans' Affairs determine the level of access to RPBS benefits.

Expenditure under the PBS for people of all ages totalled \$6.2 billion in 2005–06 (DoHA: Data and Modelling Section Pharmaceutical Policy and Analysis Branch 2006). Benefits paid under the RPBS in 2005–06 totalled \$465.7 million (DVA 2006a).

Per person expenditure on pharmaceutical benefits is higher for older age groups than for younger age groups (Table A31.1, Costello 2007). Per person expenditure on pharmaceutical benefits peaks for the 75–84 years age group where it is 4.5 times total per person expenditure. About one-fifth of expenditure on pharmaceutical benefits was for this age group (21%) and almost one-quarter (24%) was for people aged 65–74 years (Figure 31.1).

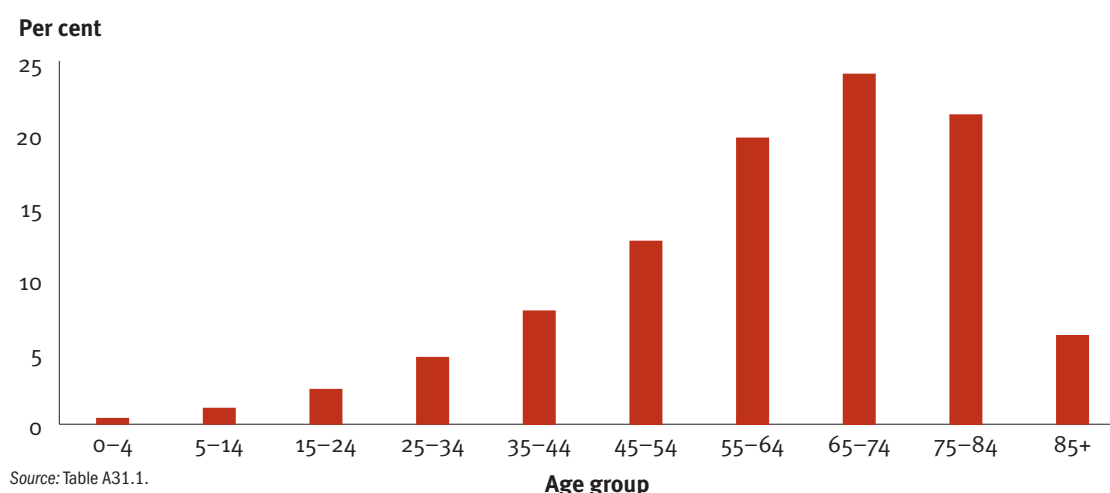
**Table 31.2: Age-specific usage rates of medications for priority health conditions**

Treatment area	65–74	75–84	85+	65+
	Rates per 1,000			
Ischaemic heart diseases	485.8	600.7	575.2	535.0
Arthritis	295.9	331.8	309.3	310.1
Mental wellbeing	231.7	246.3	280.3	240.9
Diabetes	98.5	93.7	81.3	95.4
Asthma	78.1	55.6	77.1	69.8

Note: The National Health Survey collects information only from people living in private dwellings. Because a significant proportion of people aged 85 and over live in aged care facilities, these rates need to be interpreted with this in mind.

Source: AIHW analysis of the 2004–05 ABS National Health Survey (ABS 2006q).

**Figure 31.1: Government expenditure on pharmaceuticals by age group, as a proportion of total government expenditure on pharmaceuticals, 2005–06**



Source: Table A31.1.

The Australian population has shown improved oral health over recent decades, with decreased tooth loss among adults (ABS 1979; AIHW: Carter & Davies 2002; see also Topic 27: *Oral health*). This is most pronounced among adults aged 75 years and over—the proportion of this age group who have lost all their teeth has declined from 36% to 27% between 1987–88 and 2004–06. Demographic changes are projected to increase the population of middle to older aged adults (see Topic 2: *The changing demographic profile*). Consistent with these population trends, there has been an increase in the proportion of middle-aged and older adults attending for private dental care (AIHW: Brennan & Spencer 2006). With declines in the prevalence of complete tooth loss and in the numbers of missing teeth, the dental needs of adults may increase because of the larger pool of teeth at risk (Joshi et al. 1996).

Changing demographics and technological advances are expected to lead to higher patient expectations and to a greater demand for oral health care (Douglass & Sheets 2000). With more people retaining their teeth and the age structure of the population changing, shifts in service provision have been observed among dental patients in private general practice and dental service patterns have changed towards more prevention and maintenance of natural teeth (Brennan & Spencer 2006).

### Service provision in private general dental practice

In Australia the vast majority of dental practitioners are in the private sector (83%). The provision of oral health services is dominated by general dental practitioners (85%), with a small percentage of dental practitioners in specialist and restricted practice (12%), and the remainder in areas such as administration, teaching and research (AIHW: Teusner & Spencer 2003). Findings are presented in Table 32.1 for patients aged 55–64 years and 65 years and over from the 2003–04 Longitudinal Study of Dentists' Practice Activity.

Overall, older private dental patients received fewer fillings, and crowns. However, older patients had higher rates for dentures, and similar rates for total services per visit.

Trends in private dental service provision over time are presented in Figure 32.1. Patients aged 65 years and over tended to show increases in rates of dental service provision over time, with increases noted in the diagnostic service area for both oral examinations and radiographs, and also for provision of crowns. Increases in services such as these have contributed to an overall increase in total services per visit, which grew from 1.97 in 1993–94 to 2.08 in 1998–99 to 2.24 in 2003–04.

**Table 32.1: Services per visit for dentate private dental patients, by age, 2003–04**

	55–64	65 and over
	Mean [95% CI]	Mean [95% CI]
Oral examinations	0.39 [0.36, 0.43]	0.42 [0.37, 0.45]
X-rays	0.26 [0.21, 0.30]	0.23 [0.19, 0.28]
Fillings	0.74 [0.65, 0.83]	0.64 [0.56, 0.72]
Dental prophylaxis	0.25 [0.21, 0.28]	0.25 [0.22, 0.29]
Extractions	0.07 [0.04, 0.08]	0.09 [0.05, 0.13]
Endodontics/root canal treatment	0.11 [0.07, 0.15]	0.10 [0.06, 0.13]
Crowns	0.11 [0.08, 0.14]	0.07 [0.05, 0.09]
Dentures	0.15 [0.09, 0.21]	0.26 [0.16, 0.36]
<b>Total services per visit</b>	<b>2.29 [2.17, 2.40]</b>	<b>2.24 [2.10, 2.38]</b>

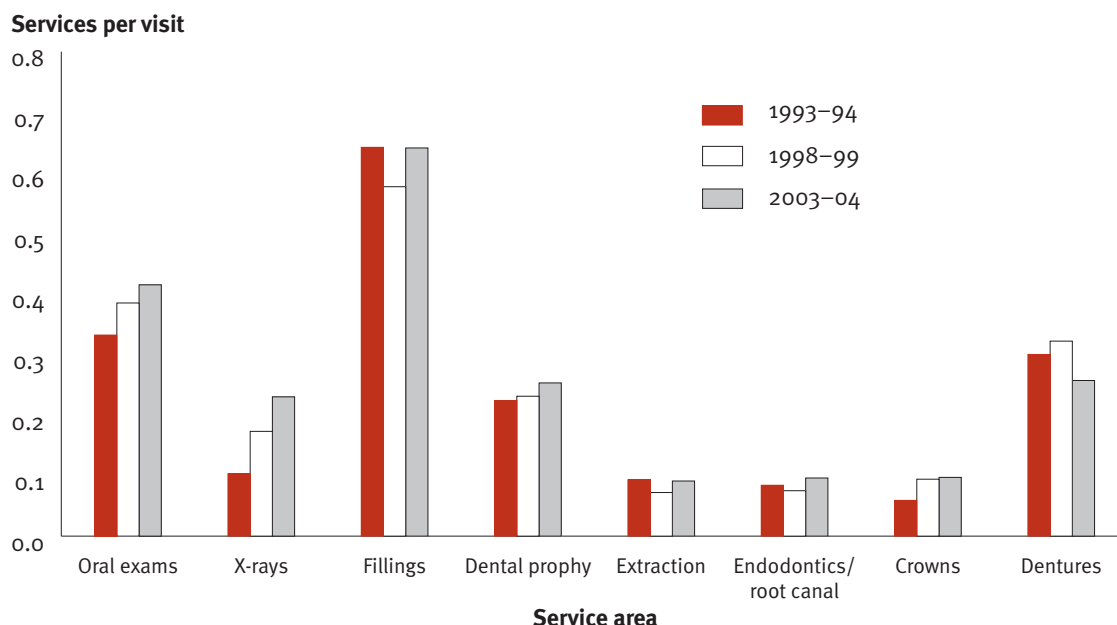
*Notes*

1 Total services per visit also includes periodontic, orthodontic and general/miscellaneous services.

2 95% CI is the 95% confidence interval.

Source: Longitudinal Study of Dentists' Practice Activity 2003–04.

**Figure 32.1: Trends in service provision in private general practice among patients aged 65 and over, 1993–94 to 2003–04**



Source: AIHW: Brennan & Spencer 2006; see also Table A32.1.

### Public dental patients

Health card holders such as aged pensioners and the unemployed constitute a low-income group and are the target population eligible for publicly-funded dental care. All Australian states and territories provide public dental services. These services are largely provided at minimal or no direct cost to the patient by publicly employed dentists in government clinics located in major regional centres, often associated with district hospitals or health centres. These clinics provide access to a restricted level of care and generally do not include all aspects of dental treatment (AHMAC Steering Committee for National Planning for Oral Health 2001).

Adults receiving public dental care have been shown to have high levels of emergency visits resulting in higher

rates of extraction than patients attending for private dental care (Brennan et al. 1997). This indicates a pattern of service provision that is unfavourable to the goal of maintaining a functional natural dentition for life. This is most likely to be a reflection of access problems such as waiting time for dental care among public dental patients. Findings from the 2001–02 Adult Dental Programs Survey are presented in Table 32.2 for patients attending for public dental care. A higher percentage of male public dental patients received emergency care.

The percentage of public patients receiving emergency care was higher than that reported for private general practice (29.2% of visits by people aged 65 and over were for emergency care).

**Table 32.2: Dentate public dental patients attending for emergency care, by age and sex, 2001–02**

	55–64	65–74	75–84	85+	65+
	Per cent				
Males	47.2	48.8	52.3	46.7	49.5
Females	43.2	41.5	34.6	41.3	39.5
<b>Persons</b>	<b>45.1</b>	<b>45.2</b>	<b>42.1</b>	<b>44.4</b>	<b>44.3</b>

Source: Adult Dental Programs Survey 2001–02.

Hospitals are a major component of Australia's healthcare system. In 2004–05, hospitals accounted for over one-third (35% or \$29 billion) of recurrent health expenditure; expenditure on hospitals accounted for the largest proportion of real growth in recurrent health expenditure over the decade to 2004–05 (34%; AIHW 2006d). People in the older age groups make relatively high use of hospital services, and, hence, an ageing population presents a significant challenge for the management of supply of and demand for hospital services. This chapter examines some key aspects of hospital use by older people.

Access to hospital care is gained through referral by a medical practitioner performing primary or specialist care, through an emergency department, or via outpatient departments. When a person receives treatment as an admitted patient, the event is recorded as a 'separation', which indicates that a hospital stay was formally concluded. If a patient is treated in an emergency department and is not admitted to hospital, the event is recorded as a non-admitted patient emergency department occasion of service.

### Number of visits

In 2004–05, 2.5 million separations were recorded by public and private hospitals throughout Australia for older admitted patients (65 and over), representing 35% of all separations (Table 33.1; AIHW 2006a).

Separation rates in the older age groups are considerably higher than the national average rate. Compared with a crude national rate of 340 separations per 1,000 population (AIHW 2006a), the age group 65 years and over recorded 926 separations per 1,000 persons (Table 33.1). Within the mature-age population, that is, 45 years and over, age-specific rates of separation increase with increasing age up to the 75–84 age group, for both males and females. The older male population recorded a higher rate of separation compared with older females (1,050 separations per 1,000 males versus 825 per 1,000 females).

Same-day separations constituted 53% of all older patient separations in 2004–05, which reflects a higher proportion of same-day separations than multi-day stays for older male patients. Older female patients

**Table 33.1: Hospital separations for people aged 45 and over by same-day status, 2004–05**

Age (years)/sex	Separations (per cent)			Total number	Number per 1,000 population
	Not same-day	Same-day	Total		
	Per cent			Number	
<b>Males</b>					
45–64	37.6	62.4	100.0	988,224	397
65–74	39.2	60.8	100.0	588,474	862
75–84	45.5	54.5	100.0	540,759	1,304
85+	64.4	35.6	100.0	130,063	1,277
<b>Total 65+</b>	<b>44.5</b>	<b>55.5</b>	<b>100.0</b>	<b>1,259,296</b>	<b>1,050</b>
<b>Females</b>					
45–64	35.5	64.5	100.0	964,971	387
65–74	38.2	61.8	100.0	505,188	705
75–84	51.5	48.5	100.0	510,573	946
85+	74.3	25.7	100.0	196,261	921
<b>Total 65+</b>	<b>49.6</b>	<b>50.4</b>	<b>100.0</b>	<b>1,212,022</b>	<b>825</b>
<b>Persons</b>					
45–64	36.5	63.5	100.0	1,953,195	392
65–74	38.7	61.3	100.0	1,093,662	782
75–84	48.4	51.6	100.0	1,051,332	1,102
85+	70.3	29.7	100.0	326,324	1,036
<b>Total 65+</b>	<b>47.0</b>	<b>53.0</b>	<b>100.0</b>	<b>2,471,318</b>	<b>926</b>

*Notes*

1. Table includes care types of acute care, rehabilitation, palliative care, geriatric evaluation and management, psychogeriatric care, maintenance care, other admitted patient care. Excludes care types of hospital boarder and posthumous organ procurement.
2. Rates (per 1,000 population) are based on the estimated resident population at 30 June 2005 (preliminary; ABS 2006d).

Source: AIHW analysis of the National Hospital Morbidity Database.

recorded equal proportions of same-day and multi-day separations. Same-day separations have increased as a proportion of total separations for both males and females since 2000–01 (AIHW 2002b). Much of the shift towards same-day separations for both sexes has been associated with increases in same-day cataract procedures and more same-day treatment of endocrine, nutritional and metabolic conditions.

For both males and females, same-day admission and discharge accounts for a reducing proportion of separations as age increases: from 61% of separations for males aged 65–74 years to just 36% for males aged 85 years and over, and from 62% of separations for females aged 65–74 years to 26% of separations for females aged 85 years and over (Table 29.1). This probably reflects different patterns of reason for admission to hospital of the ‘young old’ and the ‘old old’, which can be further explored by looking at principal diagnosis and care type by age group (see also Topic 34: *Reasons for admission to hospital*).

Detailed episode-level data on non-admitted patient emergency department occasions of service were reported for 76% of public hospitals in 2004–05. The data include 797,756 occasions of service for people aged 65 years and over, which make up approximately 18% of records in the non-admitted patient emergency department data set (AIHW 2006a).

### Number of days and length of stay

Not only does the rate of separation from hospital increase with age, so too does the average number of days per stay (Table A33.1). In 2004–05, patients aged 65 years and over accounted for 11.4 million patient days, or 48% of all patient days (AIHW 2006a).

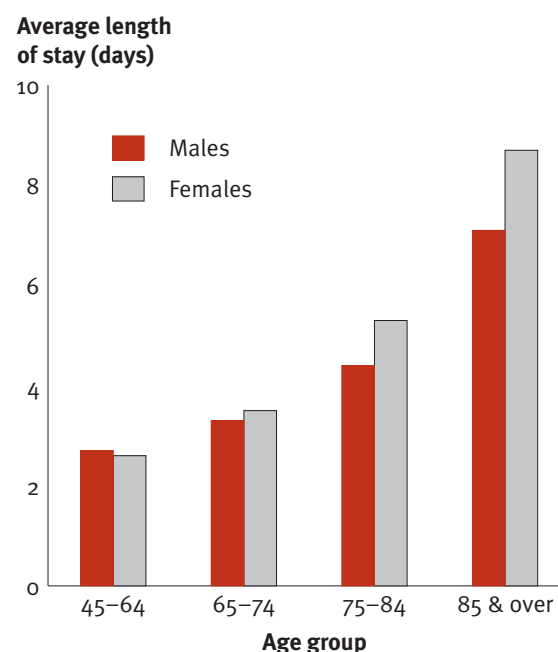
Older patients stayed in hospital for an average of 4.6 days, including same-day separations (down from 5.3 days in 2000–01). Average length of stay increases with increasing age, rising to 8.0 days for patients aged 85 years and over (Figure 33.1). Excluding same-day separations, length of stay for patients aged 85 and over averaged 11.3 days for women and 10.5 days for men.

The number of days that a patient stays in hospital is a function of patient clinical factors, for example the conditions being treated, type of treatment received, patient response to treatment and functional status; other factors relating to individual circumstances such as living arrangement and availability of support at home following discharge; and health system factors, including hospital discharge planning arrangements

and the availability and settings for receipt of care other than acute care, such as rehabilitation care and geriatric management and evaluation (Gray 2002; Liu et al. 2001). The way that a patient’s stay in hospital is sometimes recorded as multiple separations owing to changes in care type during the one continuous episode of care leads to a downwards bias in average length of stay when calculated using separations. This bias is more prevalent in the case of older patients because of their higher propensity to experience a change in care type (care types are discussed below; see also AIHW: Karmel et al. 2007).

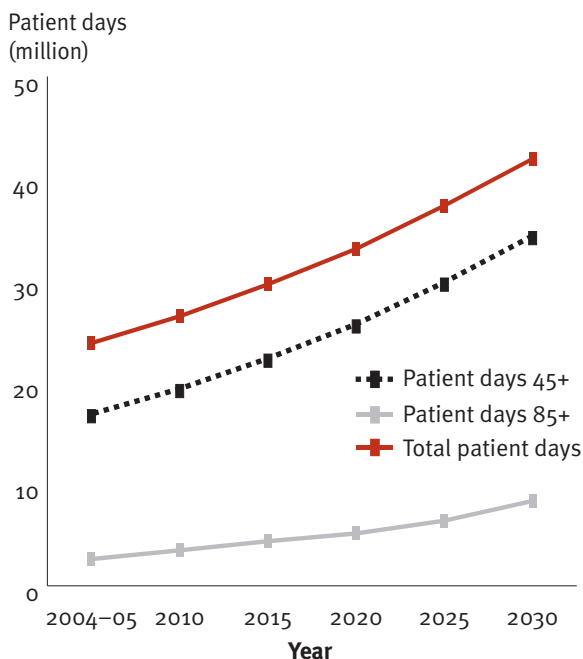
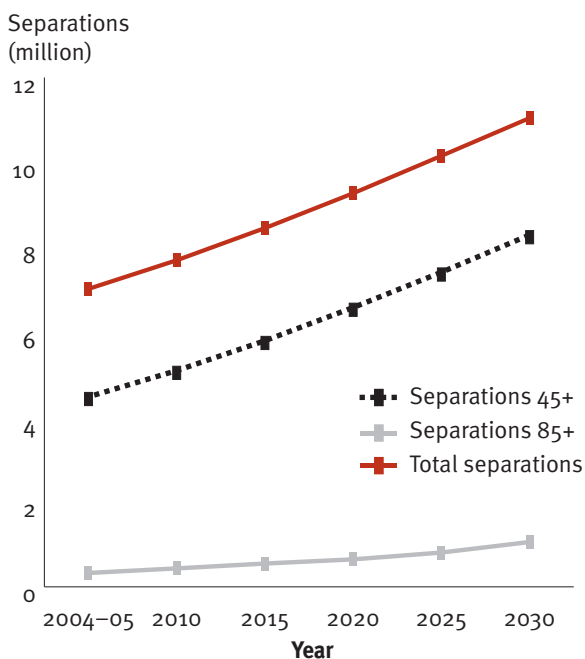
When the large baby boomer generation enters the age groups traditionally associated with higher separation rates and longer stays these two factors will contribute to increased demand for hospital services. If current rates of hospital separation and patient days by age and sex were to prevail for the next 25 years (that is, assuming that, with respect to age and sex, people continue to present to hospitals for the same conditions currently being treated in hospitals and that treatments result in similar length of stay outcomes as in 2004–05) there would be an increase from 7 million total separations in 2004–05 to around 11 million in 2030 and a corresponding increase from around 24 million to 42 million patient days (Figure 33.2).

**Figure 33.1: Average length of stay in hospital per hospital separation, 2004–05**



Source: Table A33.1.

**Figure 33.2: Actual (2004–05) and projected (2010–2030) annual number of separations and patient days, by age**



Source: AIHW analysis of National Hospital Morbidity Database; ABS 2003d.

## Type of care received

Hospital separations can be classified according to the type of care received using the broad categories of acute care, rehabilitation, palliative care, geriatric evaluation and management (GEM), psychogeriatric care, maintenance care or other type of care. Higher proportions of separations for non-acute care are observed for the older, compared with younger, patients.

Acute care accounts for lower proportions of separations for patients aged 75–84 years (74%) and 85 years and over (66%), compared with separations for patients aged 65–74 years (82%) or under 65 years (99%) (AIHW 2006a). This is due mainly to higher proportions of separations in the older age groups that are classified as rehabilitation or maintenance care. According to AIHW: Health Data Standards Committee (2006), maintenance care is 'care in which the clinical intent or treatment goal is prevention of deterioration in the functional and current health status of a patient with a disability or severe level of functional impairment. Following assessment or treatment the patient does not require further complex assessment or stabilisation, and requires care over an indefinite period. This care includes that provided to a patient who would normally receive care in another setting, for example at home, or in a residential aged care service, by a relative or carer, that is unavailable in the short term. In 2004–05, over 26% of patient days for patients aged 85 years and over were classified as maintenance care or rehabilitation (Table A33.2).



When a person is admitted to hospital, information about the health conditions that cause or contribute to admission, or which influence, affect, or arise during treatment is recorded on the patient record. Of all the diagnoses recorded, the principal diagnosis is defined as 'the diagnosis established, after study, to be chiefly responsible for occasioning the admitted patient's episode of care in hospital' (AIHW 2006a). This section examines the principal diagnoses recorded on older patient separations, with a focus on types of (often preventable) injury that result in hospitalisation.

When a person experiences multiple chronic health conditions, it can be difficult to identify one condition that is responsible for hospitalisation. The interaction of multiple conditions, medication use and social factors can contribute significantly to the need for hospitalisation among older people and the complexity and cost of treatment. The likelihood of a person having multiple chronic conditions increases with age, but good primary care can reduce the risk of hospitalisation associated with many of these conditions. Another issue related to demand for hospital services by older people is their exposure to preventable causes of injury and their greater likelihood of experiencing an adverse event during an episode of care. One approach to managing increasing demand for hospital services by an ageing population is to monitor and reduce rates of preventable hospitalisation and adverse events.

### Principal diagnosis

Table 34.1 shows the number and percentage of hospital separations of people aged 65 and over in 2004–05 by principal diagnosis, based on broad diagnosis categories in the International Classification of Diseases 10th revision Australian Modification (ICD-10-AM).

Four of these categories accounted for approximately 60% of older patient separations in 2004–05: *Factors influencing health status and contact with health services*, *Diseases of the circulatory system*, *Neoplasms* (benign and malignant tumours), and *Diseases of the digestive system*. The first three were also the top three when ranked by patient days (Table 34.1). *Injury, poisoning and other consequences of external causes* accounted for a higher number of patient days (956,977) than *Diseases of the digestive system* (713,489) and is thus ranked fourth in terms of older patient days by principal diagnosis category.

*Factors influencing health status and contact with health services* accounted for almost 30% of older

patient separations. Although 85% of separations in this category were for patients admitted and discharged on the same day, *Factors influencing health status and contact with health services* still accounted for more older patient days than any other category (Table 34.1). This category covers need for specific types of medical examination and investigation, care involving dialysis, care involving rehabilitation procedures, attention to artificial openings and prosthetic devices, and presentation of potential health hazards related to socioeconomic, psychosocial, personal and family circumstances:

- care involving dialysis accounted for the highest number of separations of older patients within this category (399,485), all for patients admitted and discharged on the same day
- the two diagnoses that accounted for the highest numbers of older patient days within this category in 2004–05 were *Care involving the use of rehabilitation procedures* (1,337,160 days) and *Problems related to medical facilities and other health care* (656,989 days). Most days recorded for older patients under the latter code were for separations coded as *Persons awaiting admission to residential aged care service* (452,930 days), for which average length of stay was 35 days.

*Diseases of the circulatory system* include any disease that affects the heart and blood vessels. *Angina pectoris* (severe pain over the heart that signals a possible impending heart attack) was associated with the highest number of separations of older people in 2004–05 (48,101 separations; average stay 3.7 days). Principal diagnosis of *heart failure* was associated with higher average length of stay (8.1 days) and patient days (289,386) than *angina pectoris*, despite fewer separations (35,920).

*Congestive heart failure* was the most frequently recorded specific heart failure principal diagnosis (73%), accounting for 251,299 older patient days. *Congestive heart failure* is one of a number of 'ambulatory sensitive care conditions'—chronic conditions for which access to timely and effective primary care can reduce the risk of hospitalisation, particularly in older populations (Culler et al. 1998; Zeng et al. 2006; Menec et al. 2006). Close monitoring of rates of potentially avoidable hospitalisations for elderly patients in Australian hospitals contributes to improved outcomes for older people with chronic conditions and more effective use of hospital services.

Other cardiovascular principal diagnoses associated with relatively high volumes of hospital patient days

include *Acute myocardial infarction*, commonly known as heart attack (28,790 separations; average 6.5 days) and *Cerebral infarction*, or stroke (11,468 separations; average 12.5 days).

A neoplasm, or tumour, is an abnormal, uncontrolled and progressive tissue growth. Tumours can occur throughout the body but in older people the tumours associated with the highest number of separations are those that occur in skin tissue. *Malignant melanoma of skin* and *Other malignancies of the skin* were principal diagnoses on 50,168 separations of older patients in 2004–05, together accounting for 97,196 patient days. *Malignant neoplasm of the colon* (11,585 separations) and *Malignant neoplasm of bronchus and lung*, or lung cancer (11,744 separations), contributed the highest volumes of patient days for older people: 102,181 and 99,793 days respectively.

Principal diagnoses for digestive system diseases and disorders were recorded for 222,154 older patient separations. The most common principal diagnosis in this category was *Diverticular disease of the intestine* (22,618 separations; 64,590 patient days). Diverticular disease is a condition of the large intestine (colon) in which small sacs or pouches (diverticula) form at weak points in the intestinal wall, thought to be caused by genetic factors or a diet low in fibre (over a third of older people have reported having diets low in fruit and vegetables; see Topic 15: *Ageing and health risk factors*, Table 15.2). Diverticular disease is a common diagnosis made by GPs for patients who present with abdominal pain.

Among principal diagnoses classified as *Injury, poisoning and other consequences of external causes*, fracture of the femur was the most frequently recorded on older patient separations (21,645). At an average of 11.8 days per separation, older patients admitted to hospital for femoral fractures accumulated 254,395 patient days in 2004–05. Fracture of the neck of femur (hip fracture) is the most frequently recorded femoral fracture associated with hospitalisation (49% of separations for femoral fracture). AIHW: Kreisfield & Newson (2006) have reported that most hip fractures are the result of falls (91%). The most common mechanism of falls that result in hospitalisation for older people with fractures is slipping, tripping and stumbling on a level surface (AIHW analysis of National Hospital Morbidity Database). Hip fractures impose a heavy burden on the community through death and increased morbidity, causing increased dependency, reduced quality of life, increased demands on families for the provision of care, high costs associated with

acute care, rehabilitation and long-term institutional care (AIHW: Kreisfield & Newson 2006; Swanson et al. 2000).

Other principal diagnoses in this category associated with high numbers of older patient days in 2004–05 include:

- fracture of lumbar vertebra (6,351 separations; 80,351 patient days)
- complications of internal orthopaedic prosthetic devices, implants and grafts, such as mechanical complication, infection or inflammatory reaction (8,065 separations; 91,727 patient days)
- complications with procedures, not elsewhere classified, for example, haemorrhage, shock, accidental puncture during a procedure, or disruption of an operation wound (10,346 separations; 79,095 patient days).

This overview of the predominant reasons for hospitalisation of older people serves to highlight the importance of initiatives that encourage healthy and active lifestyles (at all ages) and safe living environments. Successful targeting of the causes of chronic disease, improved primary care of chronic conditions, initiatives aimed at reducing injury, and close monitoring of clinical pathways of older surgical patients all contribute to reduced population disability and hospital use.

## External causes of injury and illness

As indicated above, many admissions to hospital are the result of factors other than disease processes. An important category of principal diagnosis as a cause of hospitalisation is injury and effects owing to external—often preventable—causes. Injury prevention and control is one of seven National Health Priority Areas. The National Falls Prevention for Older People Initiative sits under this Health Priority Area.

Approximately 122,500 hospital separations for older patients in 2004–05 were associated with injury, poisoning or other consequence of an external cause. In the treatment of injuries it is not uncommon for patients to be transferred between hospitals or for a patient episode to be administratively split and recorded as multiple separations for different types of care. For example, a patient might remain in the same hospital but be reclassified from acute care to rehabilitation care and this would normally generate two separations for the patient; changes in care type

**Table 34.1: Separations and patient days for patients aged 65 and over by principal diagnosis (ICD-10-AM chapter), all hospitals 2004–05**

Principal diagnosis (ICD-10-AM chapter)	Not			Not			Patient days Number
	same-day	Same-day	Total	same-day	Same-day	Total	
	Number			Per cent			
Factors influencing health status and contact with health services	110,662	631,925	742,587	9.5	48.3	30.0	2,851,885
Diseases of the circulatory system	217,318	49,147	266,465	18.7	3.8	10.8	1,580,402
Neoplasms	121,751	120,800	242,551	10.5	9.2	9.8	1,147,160
Diseases of the digestive system	108,268	113,886	222,154	9.3	8.7	9.0	713,489
Symptoms, signs and abnormal clinical and laboratory findings	89,198	62,835	152,033	7.7	4.8	6.2	481,719
Diseases of the eye and adnexa	15,592	130,486	146,078	1.3	10.0	5.9	158,607
Diseases of the musculoskeletal system and connective tissue	88,900	37,519	126,419	7.7	2.9	5.1	701,508
Injury, poisoning and other consequences of external causes	100,785	21,764	122,549	8.7	1.7	5.0	956,977
Diseases of the respiratory system	102,507	11,259	113,766	8.8	0.9	4.6	829,546
Diseases of the genitourinary system	63,693	31,108	94,801	5.5	2.4	3.8	385,936
Endocrine, nutritional and metabolic diseases	30,271	25,470	55,741	2.6	1.9	2.3	286,536
Diseases of the nervous system	30,849	15,096	45,945	2.7	1.2	1.9	274,122
Mental and behavioural disorders	23,444	16,908	40,352	2.0	1.3	1.6	540,321
Blood, blood-forming organs and immunological disorders	17,519	20,599	38,118	1.5	1.6	1.5	110,609
Disease of the skin and subcutaneous tissue	20,098	14,382	34,480	1.7	1.1	1.4	205,933
Infectious and parasitic diseases	15,496	2,612	18,108	1.3	0.2	0.7	151,287
Diseases of the ear and mastoid process	4,393	2,755	7,148	0.4	0.2	0.3	19,192
Congenital malformations	642	587	1,229	0.1	–	–	4,358
All ICD chapters	1,161,386	1,309,138	2,470,524	..	..	..	11,399,587
Not reported/not applicable <sup>(a)</sup>	527	267	794	–	–	–	23,659
<b>Total</b>	<b>1,161,913</b>	<b>1,309,405</b>	<b>2,471,318</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>11,423,246</b>

(a) Includes 792 separations with a missing principal diagnosis and two with principal diagnosis of condition originating in the perinatal period.

Note: Separations for which the care type was reported as Hospital boarder or Posthumous organ procurement are excluded.

Source: AIHW analysis of the National Hospital Morbidity Database.

are recorded as statistical admissions and statistical discharges. Eleven per cent of these injury-related separations were patient transfers (in-transfers) or change in care type, leaving just over 109,000 'hospitalisations' of people aged 65 years and over with a principal diagnosis of injury and one or more external causes recorded (Table A34.1). The following discussion refers to these hospitalisations, not total injury-related separations.

At age 65 years and over, the rate of hospitalisation for injury increases markedly with increasing age. In 2004–05 there were around 78 injury-related hospitalisations per 1,000 men aged 85 and over and 100 per 1,000 women aged 85 years and over, compared with around 25 per 1,000 men and 25 per 1,000 women aged 65–74 years (Table A34.1). Falls were the most frequently recorded external cause, followed by complications of medical and surgical care (Table A34.2). Home was the most common place of occurrence of falls that resulted in hospitalisation (approximately 49% of cases), followed by aged care facilities (22%).

National hospital data on falls and complications of medical and surgical care do not distinguish injuries and complications that occur after admission to hospital, that is, where a patient is admitted to hospital for another reason and experiences an adverse event in hospital. It has been found that older patients are more susceptible to adverse events during a stay in hospital, compared with younger patients<sup>3</sup>. For example, the occurrence of adverse events associated with elective surgery increases with age: an estimated 22% of patients aged 65 years and over who undergo elective procedures experience one or more complications (Moje et al. 2006) and patients who experience a post-admission adverse event have an estimated mean age of 62.9 years (Ehsani et al. 2006). Ehsani and colleagues estimated the cost of post-admission adverse events in public hospitals in Victoria alone in 2003–04 to have been \$460.3 million (adverse events that take place during a hospital stay can be identified in the Victorian Admitted Patient Episode Data Set).

<sup>3</sup> The relevant data element 'Diagnosis onset type' (primary or post-admit condition) is defined in the National Health Data Dictionary (AIHW: Health Data Standards Committee 2006) but is not currently implemented in the Admitted Patient National Minimum Data Set.

The Aged Care Assessment Program (ACAP) is jointly funded by the Australian Government and state and territory governments to support a network of multidisciplinary Aged Care Assessment Teams (ACATs) which operate as a single point of entry to packaged and residential aged care services and as a point of referral to other aged care services. ACATs assess people referred because they need assistance. A referral for ACAT assessment may be a self-referral or it may come via family or friends, health care practitioners or community services known to the person. ACAT assessment of a person's care needs takes into account physical, medical, psychological and social factors and facilitates access to appropriate care services.

ACAT approval is a prerequisite for admission to Australian Government accredited aged care homes (for either permanent or respite care), or to receive a Community Aged Care Package (CACP), an Extended Aged Care at Home (EACH) or Extended Aged Care at Home Dementia (EACH-D) package or a place in the Transition Care Program (TCP). ACATs also function as a source of advice and referral concerning other community services such as those provided by the Home and Community Care Program and the National Respite for Carers Program, but they do not determine eligibility for these services.

### Aged Care Assessment Teams

ACATs may be hospital- or community-based. The main professional groups represented in teams are doctors, nurses, social workers, physiotherapists and occupational therapists. The number and composition of staff on teams can vary depending on the location of the team (i.e. whether they are in urban, rural or remote regions), and the role, operation and organisation of teams vary between jurisdictions, partly reflecting the different health system environments within which they operate.

### Client profiles

Although the target population for services accessed through ACAT assessment is people aged 70 years and over and Indigenous people aged 50 and over, access to services is based on assessment of care needs, not merely chronological age. Although not part of the ACAT target group, young people with disability may be assessed by ACATs if their care needs cannot be met by other sources.

Almost half of all ACAP clients in 2004–05 (49%) were aged 80–89 years and a further 16% were aged 90 years and over (ACAP NDR 2006:Table 30). Only 3% of ACAP clients were aged less than 60. The average age of clients has increased since 1995–96, with an increase in the proportion aged 85 years and over (from 30% in 1995–96 to 39% in 2004–05). The majority of ACAP clients are female (63%).

Almost three-quarters of clients assessed in 2004–05 (72%) had a severe or profound core activity limitation, that is, they needed assistance or supervision with self-care, movement activities, moving around places at or away from home, or communication (ACAP NDR 2006: Table 35a).

The most common diagnosed health conditions among ACAP clients were diseases of the heart (50,311 clients), arthritis (48,284), hypertension (45,294) and dementia (41,707) (ACAP NDR 2006:Table AB19a). Arthritis was the most commonly recorded main condition, that is, the health condition that has most impact on the person's need for assistance with activities of daily living and social participation. Arthritis was the main health condition for 29,158 clients, followed by dementia (13,889), diseases of the heart (12,980) and eye and vision disorders (12,459) (ACAP NDR 2006:Table AB19b).

### Assessments and recommendations

Recommendations and approvals in relation to care needs and care arrangements are made following comprehensive assessment and remain valid for 12 months unless otherwise specified. If a person's care needs change to the extent that a different level or type of care is required within a 12-month period, he or she may need to be reassessed. Once approval is granted and should the client wish to proceed, the client is then directed to the appropriate service providers. Receipt of services is then subject to the availability of places and other such considerations as client and family care preferences.

Generally, the waiting time to receive an ACAT assessment is short. In 2004–05, the median waiting time for ACAP clients was 8 days from referral to the first face-to-face contact (ACAP NDR 2006). Ninety per cent of clients received a first face-to-face contact within 47 days. The length of time clients wait for their first clinical intervention and first face-to-face contact varies according to the priority category accorded to them, their location at assessment and certain client characteristics. Hospital-based assessments were



undertaken much more quickly than those in residential care or in the community. This is partly because of the efficiencies that result when several clients are located in the same facility. Clients were less likely to wait a long time for assessment if they had a core activity limitation, had a non-resident carer, or had used residential respite care.

In 2004–05, over half of the clients living in the community at assessment (54%) were recommended to remain in the community; around one-quarter were recommended for low-level residential care and 19% were recommended to high-level care. Of those clients living in low-level residential care at assessment, 79% were recommended for high-level care (Table 35.1).

In 2004–05, there were 13,964 younger ACAP clients living in the community at assessment, and 59.1% of this group were recommended to remain in the community. The remainder were slightly more likely to be recommended for high-level residential care (20%) than low-level care (19%).

Clients with a primary diagnosis of dementia, clients with a severe or profound core activity limitation and clients assessed in hospital were all less likely to be recommended to remain in the community and more likely not only to receive a recommendation for residential care but a recommendation for high-level care (ACAP NDR 2006).

## Assistance with activities

More than half of clients living in the community at assessment were already receiving assistance, formal or informal, with housework (65%), transport (57%), and meals (56%) before ACAT assessment (ACAP NDR 2006: Tables AB15 and 38B). Thirty-seven per cent had been receiving help with personal care. Across most assistance types, relatively more clients had been receiving assistance from informal providers (family and friends) than from formal providers. Particularly in the areas of mobility, transport, social and community participation and communication, informal providers of assistance provide help to the majority of ACAT clients with needs in those areas.

Around one third of clients living in the community at assessment had not been accessing government-funded community care programs. Of those with a known history of using community care programs, most (52%) had been receiving assistance from HACC, followed by CACP (14%).

For those clients with a recommendation to live in the community (88,012), domestic assistance was recommended for 58% and meals assistance for 38%; assistance with health and personal care were recommended for 35% and 31% respectively. More than one-third of these clients were recommended to receive help with transport (40%) and social participation (37%) (ACAP NDR 2006: Tables AC20 and 38B).

**Table 35.1: ACAT assessment outcomes, recommended long-term care setting by usual accommodation setting, 2004–05**

	Recommended long-term care setting				Total	Total (number)
	Community	Low-level residential care	High-level residential care	Other/missing		
	per cent					
<b>Usual accommodation setting</b>						
Community	54.3	25.4	18.8	1.5	100.0	152,696
Residential aged care service— low care	0.9	19.0	78.6	1.5	100.0	11,654
Residential aged care service—high care	5.3	11.2	78.9	4.7	100.0	1,751
Other/missing	45.5	20.8	24.2	9.5	100.0	10,776
<b>Total</b>	<b>49.8</b>	<b>24.6</b>	<b>23.7</b>	<b>2.0</b>	<b>100.0</b>	<b>176,877</b>

*Notes*

1. Table includes MDS version1 and MDS version2 data for complete assessments only as appropriate (clients of all ages).
  2. Figures in the table reflect percentages (and numbers) of recommendations for completed assessments. A person can have more than one assessment per year.
- Source: ACAP NDR 2006: Tables 38a, 38b.



The Home and Community Care (HACC) Program is the main provider of home-based care services in Australia. It provides a range of services to both frail older people and younger people with disability as well as their carers. The program was created in 1984 (via the *Home and Community Care Act 1985*) following a report of the House of Representatives Standing Committee on Expenditure (HRSCE 1982), and brought together into one system a range of separately funded programs. HACC is funded jointly by the Australian Government and state and territory governments.

In 2004–05 (the most recent data available in time for publication) approximately 3,250 agencies delivered HACC services, 3,100 of which reported service provision data for the HACC Minimum Data Set (MDS)

collection (DoHA 2006a). Nearly 60% of HACC clients in 2004–05 were referred to the program by formal services such as general practitioners, hospitals, or other government or non-government organisations. The remainder were either self-referred or referred by family or friends (DoHA 2006a).

### Client profile

In 2004–05, HACC provided assistance to over 744,000 people, 75% of whom were aged 65 years and over. Two-thirds of older clients were women, with the single biggest group being women aged between 75 and 84 years (32% of all older clients) (Table A36.1). People using HACC services have a younger profile than people in residential aged care or people receiving care

**Table 36.1: Home and Community Care clients aged 65 and over, by assistance type and age, 2004–05**

Assistance type	65–74		75–84		85+		65 and over <sup>(a)</sup>	
	Clients	Rate per 1,000 <sup>(b)</sup>	Clients	Rate per 1,000 <sup>(b)</sup>	Clients	Rate per 1,000 <sup>(b)</sup>	Clients	Rate per 1,000 <sup>(b)</sup>
Assessment, case management or case planning <sup>(c)</sup>	62,400	44.6	121,700	127.6	69,400	220.2	<b>254,300</b>	<b>97.6</b>
Domestic assistance	38,200	27.3	83,000	86.9	48,500	154.1	<b>169,900</b>	<b>65.2</b>
Meals (at home or at a centre) <sup>(c)</sup>	21,100	15.1	56,200	58.9	42,800	136.0	<b>120,600</b>	<b>46.3</b>
Nursing (home or centre based) <sup>(c)</sup>	29,500	21.1	52,300	54.8	34,500	109.4	<b>116,600</b>	<b>44.8</b>
Transport	22,400	16.0	48,100	50.4	25,800	81.7	<b>97,000</b>	<b>37.2</b>
Allied health (at home or at centre) <sup>(c)</sup>	29,100	20.8	43,200	45.3	21,900	69.5	<b>94,600</b>	<b>36.3</b>
Home maintenance	22,900	16.3	45,900	48.1	22,000	69.8	<b>90,900</b>	<b>34.9</b>
Centre based day care	15,500	11.1	28,700	30.1	16,600	52.8	<b>61,000</b>	<b>23.4</b>
Social support	13,000	9.3	27,700	29.0	18,100	57.5	<b>59,100</b>	<b>21.8</b>
Personal care	9,400	6.7	21,500	22.5	18,500	58.7	<b>49,400</b>	<b>19.0</b>
Counselling	11,500	8.2	18,300	19.2	9,900	31.5	<b>40,000</b>	<b>14.8</b>
Provision of aids/car modifications <sup>(c)</sup>	7,400	5.3	12,700	13.3	7,400	23.6	<b>27,600</b>	<b>10.6</b>
Home modification	4,500	3.2	8,900	9.4	4,500	14.3	<b>18,000</b>	<b>6.9</b>
Respite care	2,200	1.5	2,100	2.2	700	2.2	<b>5,200</b>	<b>2.0</b>
Other food services	500	0.4	1,000	1.0	800	2.6	<b>2,300</b>	<b>0.9</b>
Linen services	200	0.1	400	0.5	300	1.0	<b>900</b>	<b>0.4</b>
<b>Total clients</b>	<b>143,400</b>	<b>102.5</b>	<b>265,700</b>	<b>278.5</b>	<b>149,600</b>	<b>474.9</b>	<b>561,800</b>	<b>207.5</b>
<b>Total clients (%)</b>	<b>25.5</b>	<b>..</b>	<b>47.3</b>	<b>..</b>	<b>26.6</b>	<b>..</b>	<b>100.0</b>	<b>..</b>

(a) Includes clients with missing age.

(b) Usage per 1,000 people in the age group.

(c) Assistance type includes more than one category. Clients are counted only once per assistance type. For example, a client receiving allied health service both at home and at a centre is counted only once for allied health services.

#### Notes

- For 2004–05, 3,100 agencies submitted data to the HACC MDS.
- Age is calculated at the end of the period. Clients with missing age are assumed to be over 65 and are included in 65+ totals.
- Total number of clients is less than the sum of all clients as people may receive more than one type of assistance.

Source: AIHW analysis of the HACC (MDS). Methodological differences result in slightly different numbers from those published in the HACC MDS 2004–05 annual bulletin.

packages in the community. Looking at clients aged 65 and over, only 27% of those receiving HACC services were aged 85 years and over, compared with 40% of people using Community Aged Care Packages, 33% of people using Extended Aged Care at Home packages and 57% of all older people in permanent residential aged care (see also Topic 37: *Community Aged Care Packages*, Topic 38: *Extended Aged Care and at Home and Extended Aged Care at Home Dementia Packages* and Topic 40: *Residential aged care: resident profiles*).

## Service provision

HACC clients may receive assistance over a prolonged period, or for just a short period of time. Of the 561,800 older people receiving assistance at some stage in 2004–05, around 355,000 received assistance in any one quarter of the year. Clients aged 85 years and over were more likely to have received assistance more continuously throughout the year (40%) than clients aged 65–74 years (31%) (AIHW analysis of HACC MDS).

**Table 36.2: Quarterly median volume<sup>(a)</sup> and total volume of Home and Community Care services used, by assistance type and age, 2004–05**

Assistance type	65–74	75–84	85+	All 65+	65–74	75–84	85+	All 65+
	Quarterly median <sup>(a)</sup>				Annual total service volume ('000)			
Centre-based day care (hours)	33	40	45	40	1,951.6	3,996.4	2,449.1	8,413.5
Respite care (hours)	26	23	17	24	167.8	136.4	36.3	350.7
Personal care (hours)	12	12	13	12	454.6	834.3	776.6	2,066.2
Domestic assistance (hours)	9	9	9	9	1,150.3	2,426.1	1,447.7	5,028.0
Other food services (hours)	8	7	9	8	18.2	24.1	23.8	66.2
Social support (hours)	7	8	9	8	315.9	673.5	485.8	1,482.9
Nursing (home or centre based) (hours) <sup>(b)</sup>	4	4	5	4	429.8	834.6	608.1	1,880.2
Home maintenance (hours)	3	3	3	3	167.5	331.7	158.1	660.3
Assessment, case management or case planning (hours) <sup>(b)</sup>	2	2	2	2	319.6	600.9	378.0	1,304.9
Allied health (at home or centre-based) (hours) <sup>(b)</sup>	1	1	1	1	149.8	221.6	112.0	484.9
Counselling (hours)	1	1	1	1	66.1	80.3	36.7	186.2
<b>Total hours</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>8</b>	<b>5,191.4</b>	<b>10,159.9</b>	<b>6,512.2</b>	<b>21,924.0</b>
Meals (at home or centre) <sup>(b)</sup>	18	26	37	29	1,511.8	4,732.5	4,270.6	10,548.3
Linen services (deliveries)	7	7	6	7	3.8	8.1	6.2	18.2
Transport (one-way trips)	8	8	11	9	720.6	1,637.2	985.8	3,359.1
Home modification (\$)	70	68	66	68	1,381.3	2,394.6	1,020.9	4,801.7
Provision of aids/car modifications (number) <sup>(c)</sup>	2	2	2	2	44.4	73.0	40.6	158.2
<b>Average number of types of assistance<sup>(c)</sup></b>	<b>1.7</b>	<b>1.8</b>	<b>1.9</b>	<b>1.8</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>

(a) HACC service is reported quarterly. In 2004–05, 33% of clients received assistance in only one quarter, 17% in two quarters, 14% in three quarters and 36% in four quarters. As median service provision is strongly influenced by the number of quarters in which a client receives assistance, this table shows the median amount of service received in any one quarter. The annual service received by a HACC client is broken down by quarters; a client who received assistance in all four quarters will contribute four times to the calculation of the quarterly median amount of service.

(b) Assistance type includes more than one category. Clients are counted only once per assistance type in any one quarter. For example, a client receiving allied health service both at home and at a centre in the same quarter is counted only once for allied health services for that quarter.

(c) Average of the 15 assistance categories listed in the table.

### Notes

- For 2004–05, 3,100 agencies submitted data to the HACC MDS.
- Age is calculated at the end of the period. Clients with missing age are assumed to be over 65 and are included in 65+ totals.
- 'Median' amount of assistance is the value of an item where half the clients are below this value and half are above it. Median measures in this table refer only to those clients who received that particular type of assistance in the 12-month period.
- Table includes a small proportion of clients with very heavy reported use. These are unlikely to affect the median value.

Source: AIHW analysis of the HACC MDS. Methodological differences result in slightly different numbers from those published in the HACC MDS 2004–05 annual bulletin.

Table 36.1 shows that the usage rate for all assistance types increases substantially with age. Overall, out of every 1,000 people aged 85 years and over, 475 were using HACC services at some time during the year. The corresponding usage rates for people aged 65–74 years and 75–84 years were 103 and 279 per 1,000 people, respectively.

Around 45% (254,300 out of 561,800) of all older clients required assessment, management or planning of their requirements during 2004–05. After this, assistance with domestic chores (30%) was the service used by the largest number of older HACC clients, followed by assistance with meals (22%), nursing services (21%) and transport (17%) (Table A36.2).

The volume of service received by a HACC client in the year is influenced by the length of time he or she receives assistance. Version 1 of the HACC MDS (applicable to data for 2004–05) does not record service start and end dates, which means the period of the year over which assistance has been provided to a client and the corresponding rate of service provision cannot be measured. The intensity of service provision to clients is estimated here using the median amount of service provided to a client in any quarter (Table 36.2).

Although domestic assistance is the most commonly used service (received by 30% of older clients) it does not involve the highest number of hours of assistance, compared with other service types. The median quarterly amount of domestic assistance received by older HACC clients was 9 hours. Provision of meals at either home or in a centre was the next most commonly used type of assistance (22%), with a quarterly median of 29 meals (Tables 36.2 and A36.2).

The service type with the highest amount of assistance provided was centre-based day care which was received by 11% of older clients, with a quarterly median of 40 hours per client.

Personal care and respite care were also service types with relatively high amounts of assistance. Clients received a median of 12 hours of personal care in a quarter. Respite care was recorded for only 1% of older HACC clients, with a median of 24 hours in a quarter. However, respite care is recorded as a service for carers (carers are HACC clients in their own right) and this results in recorded use of respite care being higher in younger age groups: over two-thirds of HACC clients receiving respite care were under 65.

For most service types, the amount of assistance provided did not vary greatly according to the age of the client. However, the hours of service provided per quarter increased with age for centre-based day care and social support, and nursing care to a lesser extent. So too did the number of meals provided, and the use of transport services by clients aged 85 and over.

Overall, the HACC program provided 21.9 million hours of assistance to older people in 2004–05, over a third of this as centre-based day care, a service provided to groups, (8.4 million hours), and nearly a quarter, as domestic assistance (5.0 million hours). In addition, it provided 10.5 million meals, 3.4 million one-way trips and \$4.8 million in assistance with home modifications which help prevent injury in the home (Table 36.2).

Community Aged Care Packages (CACPs) are funded by the Australian Government and began in 1992 as an alternative to low-level residential aged care. It provides home-based care to frail or disabled older people living in the community following an ACAT assessment and recommendation. A CACP provides a package of assistance managed by a care coordinator, who manages the complex care needs of the recipients and arranges provision of the following types of assistance: personal care, domestic assistance, social support, assistance with meal preparation and other food services, respite care, rehabilitation support, home maintenance, delivered meals, linen services and transport.

A CACP recipient is not excluded from receiving additional community care if required. For example, CACPs do not provide nursing services or allied health care but these services are offered by the Home and Community Care (HACC) Program. An exploratory study (AIHW: Karmel & Braun 2004) found that at least 35% CACP recipients were using at least one HACC service in the second half of 2002, and that 11% of CACP recipients were using HACC nursing services.

### Growth in CACPs

The CACP program has grown rapidly since its inception, from 235 packages in 1992 to 35,383 at 30 June 2006 (Figure 37.1). This 2006 figure equates to 18.2

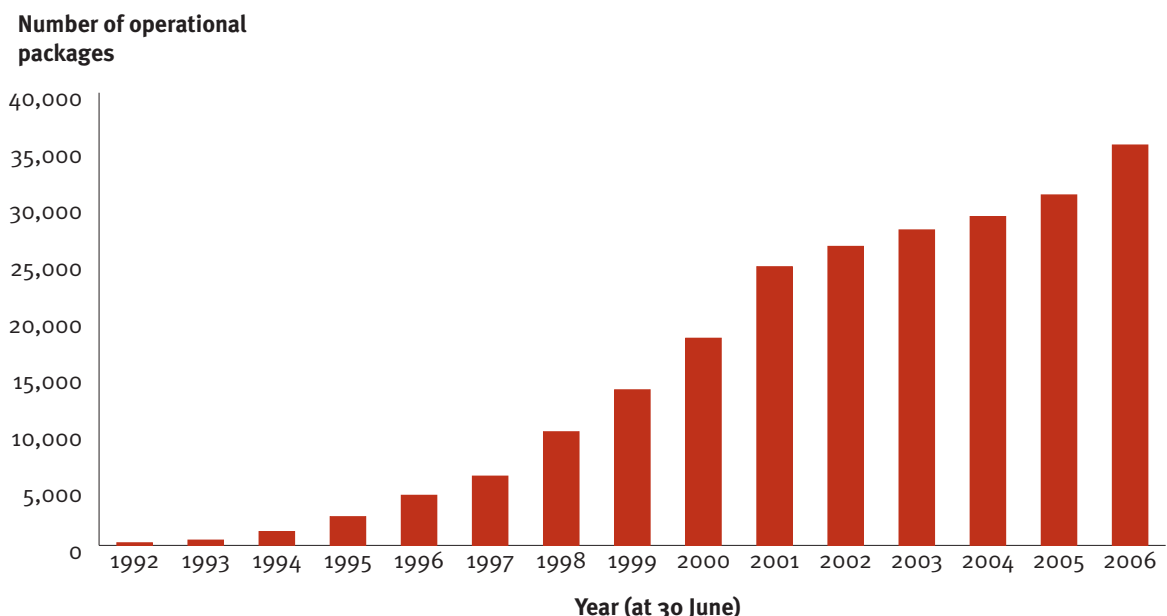
packages per 1,000 persons aged 70 and over. There were 1,011 service outlets providing these packages throughout Australia as at 30 June 2006.

In 2005–06, the Australian Government target for community aged care provision was 20 operational places and packages per 1,000 persons aged 70 and over. The majority of these packages are currently CACPs, but Extended Aged Care at Home (EACH) packages are emerging as a significant community care option for people with high care needs (see Topic 38: *Extended Aged Care at Home and Extended Aged Care at Home Dementia Packages*). The combined operational provision ratio for CACPs, EACH and EACH Dementia packages at 30 June 2006 was 19.9 per 1,000 persons aged 70 and over (AIHW 2007a).

### Profile of CACP recipients

At 30 June 2006, a large proportion of CACP recipients were aged 85 and over (38%), with 3% aged 95 and over. Around 6% of package recipients were younger than 65, and less than 1% of recipients were under the age of 50 (derived from Table 37.1). Female recipients predominated in all age groups, varying from 59% of all recipients under age 50, to 74% of all recipients aged 85 years and over. Over 59% of all package recipients were women aged 75 years and over (derived from Table 37.1).

**Figure 37.1: Number of Community Aged Care Packages, 1992–2006.**



Source: Table A37.1.

At 30 June 2006, of those with known responses, over half of CACP recipients lived alone and a further 41% lived with family. A small proportion (5%) lived with others. Almost two-thirds (62%) owned their own home, and 12% lived in public rental housing. Only 6% lived in a private rental property and 1% lived in boarding or lodging houses.

### Length of time on CACP

Of those care recipients who left the program in 2005–06, 48% entered a residential aged care service, and

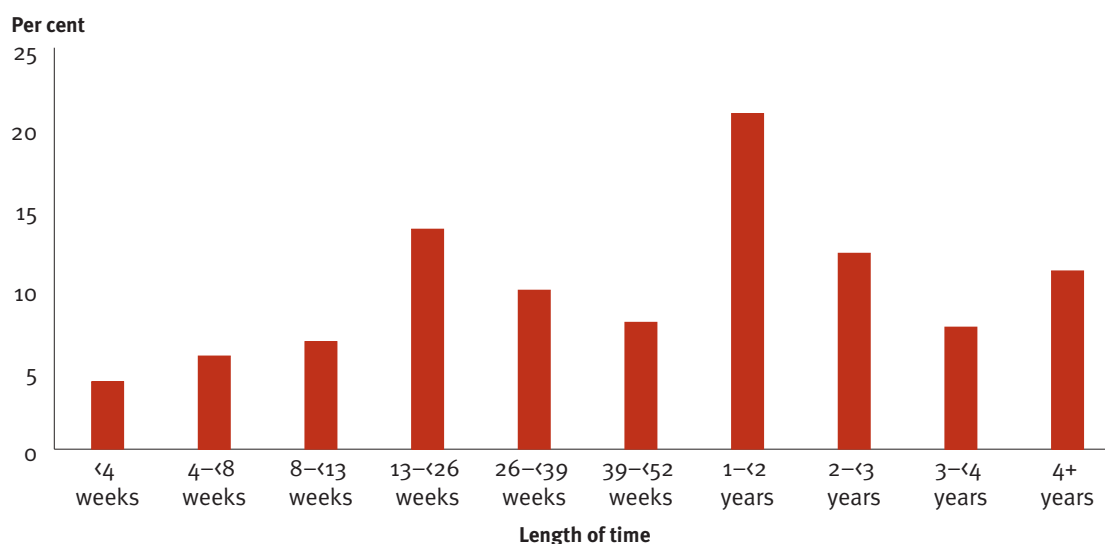
18% died. The proportion of men who ceased receiving the service and entered a residential aged care service was lower (44% of male care recipients) than that for women (51%). Conversely, there were a higher proportion of deaths among men (24%) than among women (16%). Just over half of the care recipients leaving the program had been clients for more than 1 year (52%); 19% had used a package for 3 years or more (Figure 37.2).

**Table 37.1: Community Aged Care Package recipients, by age and sex, at 30 June 2006**

Age	Females		Males		Persons	
	Number	Per cent	Number	Per cent	Number	Per cent
0–49	110	0.5	76	0.8	186	0.6
50–54	110	0.5	118	1.3	228	0.7
55–59	297	1.3	215	2.4	512	1.6
60–64	570	2.5	335	3.7	905	2.8
65–69	1,104	4.9	700	7.7	1,804	5.7
70–74	1,855	8.2	933	10.2	2,788	8.8
75–79	3,705	16.3	1,593	17.4	5,298	16.7
80–84	5,918	26.1	2,076	22.7	7,994	25.1
85–89	5,391	23.8	1,866	20.4	7,257	22.8
90–94	2,900	12.8	971	10.6	3,871	12.2
95+	702	3.1	258	2.8	960	3.0
<b>Total</b>	<b>22,662</b>	<b>100.0</b>	<b>9,141</b>	<b>100.0</b>	<b>31,803</b>	<b>100.0</b>

Source: AIHW analysis of DoHA Aged and Community Management Information System (ACCMIS) database.

**Figure 37.2: Length of time with a CACP, separations, 2005–2006.**



Source: Table A37.2.

## EXTENDED AGED CARE AT HOME AND EXTENDED AGED CARE AT HOME DEMENTIA PACKAGES

Extended Aged Care at Home (EACH) packages are funded by the Australian Government to deliver care at home to people who are otherwise eligible for high-level residential care. EACH started as a pilot in 2000 and was established as a program in 2002. At 30 June 2006 there were 2,580 available EACH packages and 2,131 EACH recipients. EACH packages provide a similar range of care services as CACPs (see Topic 37: *Community Aged Care Packages*), with the addition of nursing and allied health care services.

EACH Dementia is a new program with packages specifically aimed at frail older people with dementia related high-care needs. A care recipient on an EACH Dementia package can access the same types of assistance that are available to an EACH package care recipient. However, delivery of that assistance may be provided using a more flexible approach and strategies that are appropriate for people with dementia. In addition, EACH Dementia packages also provide access to dementia-specific specialist services and support (DoHA 2005a).

The first allocation of 667 EACH Dementia packages occurred in December 2005, and a total of 2,000 packages will be allocated over 4 years. At 30 June 2006 there were 601 operational EACH Dementia packages and 297 EACH Dementia recipients.

Access to both types of package requires approval from an Aged Care Assessment Team (ACAT). The combined provision of EACH and EACH Dementia packages per 1,000 persons aged 70 and over was 1.6. The combined operational provision ratio for CACPs, EACH and EACH Dementia packages at 30 June 2006 was 19.9 per 1,000 persons aged 70 and over (AIHW 2007a).

### Profile of EACH package recipients

As at 30 June 2006, 70% of EACH recipients were aged 75 and over and 31% were aged 85 and over (Table 38.1). Around 7% of recipients were aged less than 65. Women predominate, especially at older ages where they make up 71% of all recipients aged 85 years and over. Of the EACH recipient population, 61% were women.

Similar proportions (163 clients; 58%) of EACH Dementia package recipients were women. Forty-four per cent of EACH Dementia recipients were younger than age 80. This proportion is higher than in CACP (37%) and slightly lower than EACH (49%). Nearly 7% of EACH Dementia package recipients were aged less than 65 although none were under age 50.

**Table 38.1: EACH recipients by age and sex, 30 June 2006**

Age group	Females		Males		Persons	
	Number	Per cent	Number	Per cent	Number	Per cent
0-49	6	0.5	5	0.6	11	0.5
50-54	9	0.7	4	0.5	13	0.6
55-59	19	1.5	12	1.4	31	1.5
60-64	46	3.6	46	5.5	92	4.3
65-69	104	8.1	97	11.5	201	9.4
70-74	144	11.2	142	16.9	286	13.4
75-79	206	16.0	198	23.5	404	19.0
80-84	284	22.0	155	18.4	439	20.6
85-89	240	18.6	107	12.7	347	16.3
90-94	158	12.3	57	6.8	215	10.1
95+	73	5.7	19	2.3	92	4.3
<b>Total</b>	<b>1,289</b>	<b>100.0</b>	<b>842</b>	<b>100.0</b>	<b>2,131</b>	<b>100.0</b>

Note: This table excludes EACH Dementia recipients.

Source: AIHW analysis of DoHA Aged and Community Care Management Information System (ACCMIS) database.



EACH packages are available in all states and territories, with the majority of recipients living in major cities (1,378). There were no recipients in remote areas but 535 recipients lived in inner regional areas and 218 recipients lived in outer regional areas.

A high percentage of care recipients live with others (76%) reflecting the importance of informal care (mostly provided by family) in supporting high-care recipients in their homes. The majority lived with family. Living arrangement was not recorded for 16% of recipients but some were reported to have a co-resident carer. An even higher proportion of EACH Dementia package recipients lived with others—83% lived with family and 4% lived with others.

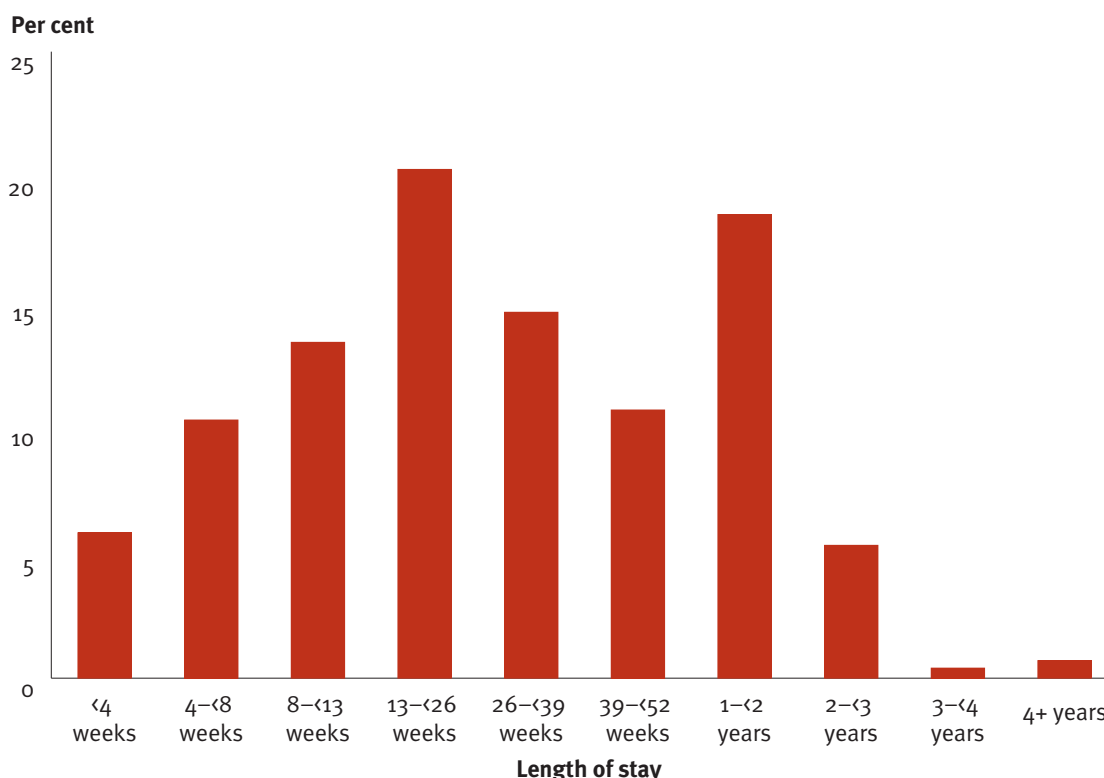
Most EACH package recipients (90%) were receiving assistance from a carer at the time of their ACAT assessment; 74% had a co-resident carer. Almost all EACH Dementia package recipients (97%) were receiving assistance from a carer at the time of ACAT assessment, reflecting the critical need for assistance from both formal service providers and from family

and/or friends. Most care recipients (85%) had a co-resident carer, but 12% had a carer who did not live with the care recipient.

### Length of stay

The amount of data on length of stay within the EACH program is limited and current patterns may change as the program matures. However, of those recipients who left the program between 1 July 2005 and 30 June 2006, 30% had received an EACH package for less than 3 months and 75% had used a package for less than 1 year (Figure 38.1). Overall, 44% left an EACH package to enter residential care; 35% died and 9% went into hospital (Table 38.2). Among those who received a package for less than one 1 month, almost equal proportions died (39%) as entered residential aged care (38%).

**Figure: 38.1: Length of time on EACH package, separations 2005–06**



Source: Table A38.1.

**Table 38.2: EACH separations, length of stay by separation mode, 2005–06**

Length of stay	Death	To hospital	To residential aged care	Resident withdrew	Other	Total
<4 weeks	24	2	23	7	5	<b>61</b>
4 to <8 weeks	41	14	41	6	5	<b>107</b>
8 to <13 weeks	49	12	65	7	7	<b>140</b>
13 to <26 weeks	69	19	99	7	18	<b>212</b>
26 to <39 weeks	50	7	80	5	10	<b>152</b>
39 to <52 weeks	32	12	46	6	16	<b>112</b>
1 to <2 years	72	18	78	7	18	<b>193</b>
2 to <3 years	20	5	24	2	4	<b>55</b>
3 to <4 years	2	0	2	0	0	<b>4</b>
4+ years	2	0	3	1	1	<b>7</b>
<b>Total</b>	<b>361</b>	<b>89</b>	<b>461</b>	<b>48</b>	<b>84</b>	<b>1,043</b>
<b>Per cent (row)</b>						
<4 weeks	39.3	3.3	37.7	11.5	8.2	<b>100.0</b>
4 to <8 weeks	38.3	13.1	38.3	5.6	4.7	<b>100.0</b>
8 to <13 weeks	35.0	8.6	46.4	5.0	5.0	<b>100.0</b>
13 to <26 weeks	32.5	9.0	46.7	3.3	8.5	<b>100.0</b>
26 to <39 weeks	32.9	4.6	52.6	3.3	6.6	<b>100.0</b>
39 to <52 weeks	28.6	10.7	41.1	5.4	14.3	<b>100.0</b>
1 to <2 years	37.3	9.3	40.4	3.6	9.3	<b>100.0</b>
2 to <3 years	36.4	9.1	43.6	3.6	7.3	<b>100.0</b>
3 to <4 years	50.0	0.0	50.0	0.0	0.0	<b>100.0</b>
4+ years	28.6	0.0	42.9	14.3	14.3	<b>100.0</b>
<b>Total</b>	<b>34.6</b>	<b>8.5</b>	<b>44.2</b>	<b>4.6</b>	<b>8.1</b>	<b>100.0</b>

Note: EACH Dementia packages are not included.

Source: AIHW 2007a.

Respite care serves a mixture of functions in the aged care service sector. Carers may require a break from providing assistance to see to their own affairs, to visit family and friends, to take a holiday or in instances where they encounter health, personal or family problems. Some carers may require relief on a regular basis from the intensity of their caring role. Frail older people without a carer (including those receiving formal care services) may also require a level of care for short periods of time outside of their usual accommodation setting, to provide them with a break from the demands of caring for themselves or to provide them with opportunities for social interaction. Both groups (people with and without a carer) may need short-term respite care at particular times such as during recovery from an acute care episode in hospital or after a traumatic event such as a fall.

Respite care can be provided in the person's home, in a day centre, in community-based overnight respite units (e.g. 'cottage' respite services) and in residential aged care homes. Programs that deliver care services, such as care packages, HACC and Veterans' Home Care, typically offer respite care services. HACC, for instance, provides assistance to carers in the form of a substitute carer in the home, centre-based respite, host family and peer support respite care. Veterans' Home Care offers in-home respite care and the Department of Veterans' Affairs also funds residential respite care for eligible clients. Two programs which specifically focus on the provision of respite care are the National Respite for Carers Program and respite places available through the Residential Aged Care program.

### Residential respite care

Residential respite care is recognised as an important component of the carer support system and provides short-term accommodation and care in residential aged care homes on a planned or emergency basis. Apart from emergencies, Aged Care Assessment Team (ACAT) approval is required to access residential respite care and an approval remains valid for 12 months. Assessing clients for need and eligibility for residential respite care is core work for ACATs and they play a key role in raising awareness of respite care, both in-home and residential-style, for ACAT clients recommended to live in the community. A person with a valid ACAT approval for residential respite care may use up to 63 days of respite care in a financial year, which can be taken in 'blocks', for example, 1 or 2 weeks at a time. An extra 21 days may be available if deemed necessary by an ACAT.

There were 49,727 admissions to residential respite care during 2005–06. Of these admissions, 30,692 (62%) were for women. Over 5% of all persons admitted for respite care were under aged 65. Overall, the age group 75–84 years accounted for the largest number of admissions (41%) during the year (Table 39.1). This was also true for men, among whom 44% of admissions were in the 75–84 year age group. But the largest number of admissions for women was for the 85–94 year age group (43%).

The number of residential respite occupied bed-days per year has generally increased over the last 6 years while remaining close to 2% of total occupied bed-days in residential care. Total respite days increased

**Table 39.1: Respite admissions to residential aged care, by sex and age at admission, 2005–06**

Age	Females	Males	Persons
<b>Number</b>			
Under 65	1,320	1,389	2,709
65–74	2,892	3,218	6,110
75–84	12,139	8,385	20,524
85–94	13,069	5,614	18,683
95+	1,272	429	1,701
<b>Total</b>	<b>30,692</b>	<b>19,035</b>	<b>49,727</b>
<b>Per cent</b>			
Under 65	4.3	7.3	5.4
65–74	9.4	16.9	12.3
75–84	39.6	44.1	41.3
85–94	42.6	29.5	37.6
95+	4.1	2.3	3.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: AIHW analysis of DoHA Aged and Community Care Management Information System (ACCMIS) database.

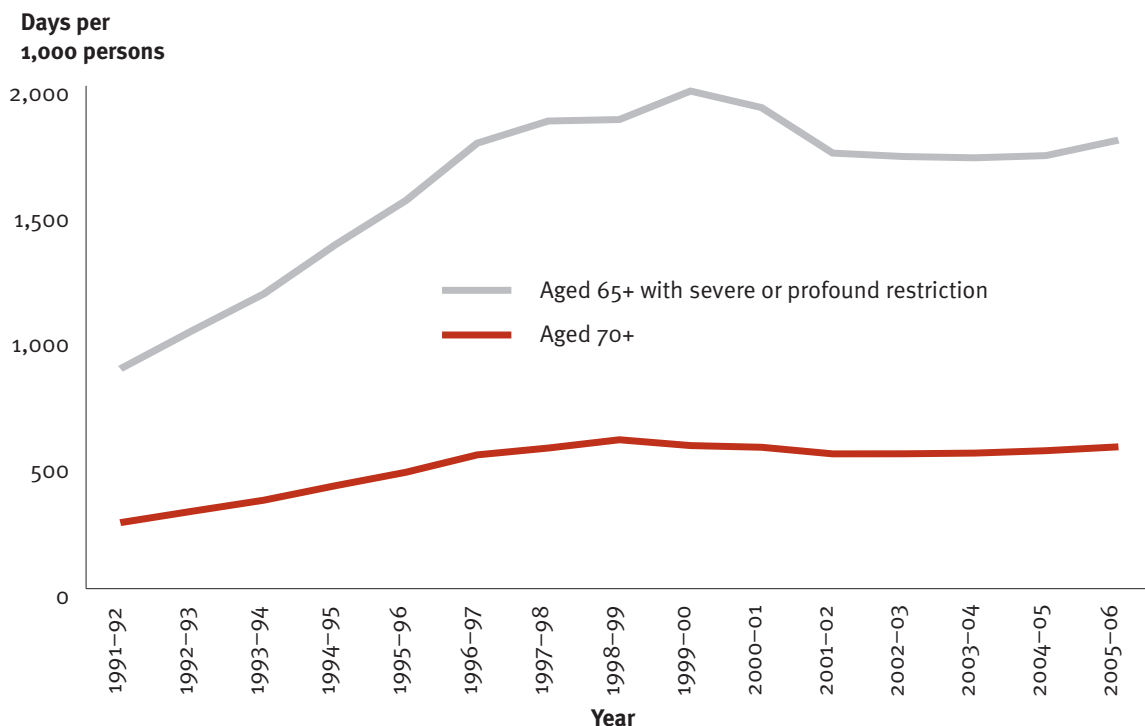
from 968,791 in the year ending 30 June 2000 to 1,095,220 in the year ending 30 June 2006. There is no obvious year-by-year trend.

Average completed length of stay for respite care was 3.1 weeks in 2005–06. It had declined from 3.5 weeks in 1998–99 to 3.1 weeks in 2002–03, after which it has remained stable (AIHW 2007f). A residential respite bed is used on average between 15 and 17 times in a year for respite residents.

Use of respite care can also be considered in relation to the population aged 70 and over, and the population aged 65 and over with a severe or profound limitation as shown in Figure 39.1. In terms of these measures of provision, respite use has doubled in both cases between 1991–92 and 2005–06. The ratio of occupied bed-days per 1,000 persons with a severe or profound limitation peaked in 1999–00 at 1,979 but then declined year by year to 1,713 days in 2003–04 (approximately the 1996–97 level). This ratio has increased over the last 2 years and in 2005–06 it was 1,783. In contrast, the ratio of occupied bed-days per 1,000 persons aged 70 and over has remained within a narrower band between 1996–1997 and 2005–06 of around 550 days.

By providing support for people living at home and their carers, residential respite can delay or obviate the need to enter permanent residential care. It can also be a 'stepping stone' towards permanent residential care. About one-fifth (19%) of admissions to permanent care are transfers of residents from respite care to permanent care (transfers are defined as admissions following separation within the residential aged care system within 2 days). Further, around 40% of residential respite care clients are admitted to permanent residential aged care within 3 months of using respite (AIHW: Karmel 2006). Analysis of ACAT recommendations also supports the view that residential respite is often a precursor to permanent placement: at each level of client dependency a higher likelihood of ACAT recommendation for permanent residential care is associated with the previous use of residential respite (ACAP NDR 2006:176, 183). Less commonly, people may be connected, or reconnected, to community care services as a result of a period of residential respite.

**Figure 39.1: Occupied residential aged care respite bed-days per 1,000 persons in stated population, for financial years 1991–92 to 2005–06**



Source: Table A39.1.

## Community-based respite care

Respite care in the community is provided through the Home and Community Care (HACC) program, the Community Aged Care Package (CACP) program, Extended Aged Care at Home (EACH) packages and the Veterans' Home Care program (see Topic 36: *Home and Community Care Program*, Topic 37: *Community Aged Care Packages*, Topic 38: *Extended Aged Care at Home and Extended Aged Care at Home Dementia Packages* and Topic 45: *Older Veterans*). The Australian Government also funds respite care services, through the National Respite for Carers Program (NRCP).

The NRCP funds direct and indirect respite care options, offering respite care in a range of accommodation settings, including day centres, host homes, overnight cottages and in-home respite services. These services can be arranged by Commonwealth Respite and Carelink Centres (Centres) on behalf of clients. In 2004–05, approximately 56,000 carers received direct respite care through the Centres where the primary purpose of the respite care was to meet the needs of carers by the provision of a break from their caring role.

Under the NRCP, Centres are able to purchase short-term and emergency respite for carers. This includes indirect respite options which offer the 'side benefit' of providing help to carers by relieving them from the other tasks of daily living, which may or may not be directly related to their caring responsibility. The carers remain the main focus although the services provided are for the people being cared for, including domestic assistance, social support, meals, and nursing/ personal care and showering assistance.

Over the last decade there has been substantial growth in the provision of in-home respite care under the HACC Program. In 2004–05, 82% of HACC agencies participated in annual reporting for the HACC Minimum Data Set. The coverage is higher than the figures indicate, because non-participation by smaller agencies contributed to the bulk of the information gap. Nevertheless, the figures stated below are underestimates of the actual statistics. In 2004–05 HACC provided respite services to 16,452 people with an average number of 92.6 hours of assistance during the period. This compares with 14,889 clients who received HACC respite services in 2001–2002 with an average of 86.3 hours of assistance.

HACC also provided centre-based day care (which is often called centre-based respite care) to 80,802 clients with an average of 137.9 hours of assistance in 2004–05, compared with 60,050 clients with an average of 121.9 hours in 2001–02. Note that respite care, centre-based day care and home meals provided by far the highest average number of hours per client of all the types of HACC assistance (DoHA 2002, 2006a).

Data about the provision and use of respite care by care package recipients is not available through an ongoing data collection. In a 2002 Census of Community Aged Care Package recipients, 1,144 of 25,410 recipients received respite care as part of their package with an average of 3.3 hours of assistance during the census week (AIHW 2004b).

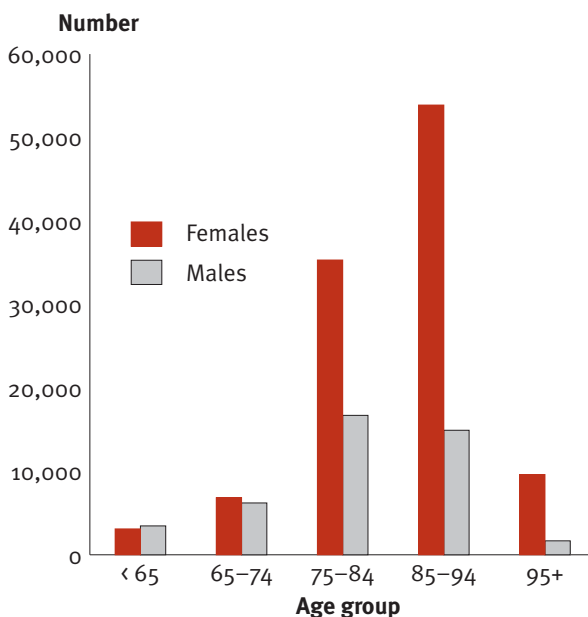
Karmel reported that people who use community care services in conjunction with residential respite tend to enter permanent residential aged care later than those who use only residential respite care (AIHW: Karmel 2006). This apparent interaction between use of residential respite and community care for delaying admission to permanent residential care has important implications. It indicates the importance of timely access to community care, particularly systems and processes to identify people who need formal assistance before carers reach crisis point.

Several initiatives are seeking to develop models of respite care for groups of carers with special needs, including the Employed Carer Innovation Pilots and the Overnight Respite in Community Houses initiative introduced under the National Respite for Carers Program.

Permanent residential aged care provides accommodation and care services to people who are no longer able to support themselves or be supported by others in their own homes. Government makes a substantial financial contribution to residential aged care in the form of subsidised daily care fees and payments for concessional residents and residents with special needs in Australian Government-accredited aged care homes with recurrent funding of \$5.3 billion in 2005–06. This includes funding appropriated through the Department of Health and Ageing as well as funding for veterans in residential care through the Department of Veterans' Affairs (DoHA 2006b).

The number of occupants in residential aged care places at 30 June each year has steadily increased from 132,655 in 1997, to 138,929 in 2002 and 154,872 in 2006. Although there is growing provision of care packages which may prevent or delay entry into residential aged care (see Topic 37: *Community Aged Care Packages* and Topic 38: *Extended Aged Care at Home and Extended Aged Care at Home Dementia packages*), the pattern over the last 10 years has still seen regular annual increases in the number of residential aged care places and residents.

**Figure 40.1: Residents in aged care by age and sex, 30 June 2006**



Source: AIHW analysis of DoHA Aged and Community Care Management Information System (ACCMIS) database.

### Age and sex

At 30 June 2006, there were 151,737 permanent residents and 3,135 respite residents in residential aged care (Table A40.1; AIHW 2007f). Around 72% of permanent residents were women. By far the majority of permanent residents were aged 75 years and over (87%); 53% were aged 85 years and over, and 7% were 95 years and over. The proportion of permanent residents who were aged 80 years and over increased from 64% in 1998–99 to 71% in 2005–06. In younger age groups, men have proportionally higher representation than women. For example, only 20% of women were under age 80 compared with 39% of men. This gender pattern reverses in older age groups with 58% of females being 85 years and over compared with 37% of men. At 30 June 2006 there were 6,562 residents of aged care services who were under 65, which equates to 4% of all permanent residents. Of these, less than half (47%) were women (Figure 40.1).

### Marital status

A majority of permanent residents at 30 June 2006 were widowed at the time they entered an aged care service (57%). Widowhood was predominant among female residents—68% of women were widows but only 29% of men were widowers (AIHW 2007f). In contrast, relatively more men than women in permanent residential aged care were married or in a de facto relationship (41% of men compared with 18% of women), single (16% of men compared with 8% of women) or divorced (9% of men, 4% of women).

### Birthplace and Indigenous status

Almost three-quarters of aged care residents were born in Australia (73%), with most of the remainder born in the United Kingdom and Ireland (11%) and 'other' areas of Europe (11%) (AIHW 2007f). Given the increasing diversity in the origins of older people, these proportions could be expected to change over the coming decade, (see Topic 1: *Age, sex and cultural diversity* and Topic 2: *The changing demographic profile*).

There were also 872 Indigenous Australians in mainstream permanent residential aged care. This may be an underestimate, however, as 5% of residents (6,972 people) did not report their Indigenous status. At 30 June 2006, an additional 2,283 places were provided by services receiving flexible funding under the Aboriginal and Torres Strait Islander Aged Care Strategy,



and from Multi-Purpose Services which serve people in rural and remote communities (AIHW 2007f).

## Need for assistance

The Resident Classification Scale (RCS) provides a measure of dependency of people in residential aged care based on an appraisal of care needs carried out by the service provider. Providers use the instrument to determine the level of care needed by a client across a number of functional domains. The level of Australian Government care subsidy to services is based on the level of care need indicated by each resident's score on this scale. Phasing-in of the Aged Care Funding Instrument (ACFI) to replace the RCS is planned to begin in 2008. This instrument will produce a different, though comparable, measure of client dependency (DoHA 2005d).

Over two-thirds of residents (69%) are classified as high-care (RCS categories 1–4). A larger proportion of younger residents have high levels of dependency compared with older residents (except for those aged 95 and over). Seventy-five per cent of those under 65 were classified as high-care along with 74% of those

aged 95 years and over. There were few differences between male and female residents in relation to dependency levels.

Residents' need for different types of assistance over the past 8 years is shown in Table 40.2. The area where need for assistance has increased most in this period is bowel management (an increase of 21 percentage points). There have been steady increases in the proportions of residents needing assistance in most of the remaining categories. More than 90% of residents required assistance with personal hygiene (95% in 2006) and communication (96% in 2006) over the whole period.

Incontinence is considered a significant predictor for institutionalisation of older people (see AIHW 2006b). In 2006, 88% of permanent residents needed some assistance with bowel management, 70% needed assistance with toileting, and 69% needed assistance with bladder management (Table 40.2). Estimates of the prevalence and severity of incontinence among permanent aged care residents suggested that, in 2003, 75,300 residents experienced profound problems with urinary and/or faecal incontinence and a further 48,000 had severe problems (AIHW 2006b: Table 6.10).

**Table 40.1: Dependency levels of permanent residents, by age, 30 June 2006**

Age	High dependency (RCS1–RCS4)	Low dependency (RCS5–RCS8)	Total (RCS1–RCS8)
	Number		
Under 65	4,911	1,594	6,505
65–69	3,343	1,321	4,664
70–74	5,922	2,360	8,282
75–79	13,083	5,347	18,430
80–84	22,561	10,579	33,140
85–89	25,624	13,367	38,991
90–94	19,690	9,586	29,276
95+	8,334	2,892	11,226
<b>Total</b>	<b>103,468</b>	<b>47,046</b>	<b>150,514</b>
	Per cent		
Under 65	75.5	24.5	100.0
65–69	71.7	28.3	100.0
70–74	71.5	28.5	100.0
75–79	71.0	29.0	100.0
80–84	68.1	31.9	100.0
85–89	65.7	34.3	100.0
90–94	67.3	32.7	100.0
95+	74.2	25.8	100.0
<b>Total</b>	<b>68.7</b>	<b>31.3</b>	<b>100.0</b>

Note: This table excludes 1,223 residents whose dependency levels were not reported at 30 June 2006.

Source: AIHW analysis of DoHA Aged and Community Care Management Information System (ACCMIS) database.

**Table 40.2: Permanent aged care residents: need for at least some assistance for selected dependency items, 30 June 1999 to 30 June 2006 (per cent)**

Type of assistance	1999	2000	2001	2002	2003	2004	2005	2006
Communication	90.8	91.6	93.0	93.7	94.4	95.1	95.6	96.1
Personal hygiene	92.2	92.8	93.2	93.4	93.7	94.2	94.4	94.6
Understanding and undertaking living activities	83.2	85.1	86.3	87.0	87.6	88.5	89.3	89.7
Mobility	82.8	82.9	83.5	83.7	84.2	84.6	84.7	85.5
Meals and drinks	75.9	75.5	76.5	76.5	77.3	78.5	79.1	79.1
Bowel management	67.5	73.1	77.2	80.3	82.7	85.1	87.3	88.2
Bladder management	64.5	65.9	67.2	67.0	67.8	68.4	68.9	69.4
Toileting (assistance)	68.0	67.6	68.1	67.5	67.8	68.7	69.4	70.1
Problem wandering or intrusive behaviour	29.4	29.5	29.2	29.2	29.9	30.6	31.3	31.7
Verbally disruptive or noisy	46.1	50.7	50.3	50.3	50.5	51.3	52.4	53.5
Physically aggressive	30.2	26.6	26.1	25.9	25.6	25.7	26.0	26.1
Emotional dependence	61.2	68.2	66.4	63.6	63.2	64.3	64.8	65.5
Danger to self or others	53.7	56.9	58.0	58.0	59.4	61.4	63.4	64.8

Source: AIHW analysis of DoHA Aged and Community Care management Information System (ACCMIS) database.

A number of these functional areas are indicative of resident needs resulting from behavioural and psychological symptoms of dementia or other types of cognitive impairment. Such symptoms can include aggression, agitation, wandering, and anxiety. In 2006, over half (54%) of residents required some intervention because of being 'verbally disruptive or noisy', and around two-thirds displayed 'emotional dependence' (66%) and/or were considered a 'danger to themselves or others' (65%). Smaller proportions needed assistance for 'problem wandering or intrusive behaviours' (32%) or for 'physical aggression' (26%). Caring for people with these needs increases the complexity and cost of care, although there is evidence that the environment in the residential aged care facility also has an effect on resident behaviour (Low et al. 2004).

## RESIDENTIAL AGED CARE: PATTERNS OF SUPPLY AND USE

41

Population ageing poses challenges for the provision of aged care to growing numbers of older people, particularly when the fastest rates of population growth are among the very old age groups (see Topic 1, *Age, sex and cultural diversity*). A key mechanism used by the Australian Government in planning residential aged care service provision is the planning target for levels of provision relative to population. In 2006, this target was 88 residential aged care places per 1,000 persons aged 70 and over. Of these 88 places, 40 were targeted to high-care places and 48 to low-care places. This planning target has applied since 2004—before that the planning target for residential aged care was 90 places per 1,000 persons aged 70 years and over (50 targeted to low-care and 40 targeted to high-care).

Only a small proportion of the older population of Australia is in residential aged care at any point in time, and use among those aged 65 years and over has declined from 5.9% in 1997 to 5.7% in 2006. This decline needs to be understood in the context of the growing provision and use of aged care packages in the community (see Topic 37: *Community Aged Care Packages* and Topic 38: *Extended Aged Care at Home and Extended Aged Care at Home Dementia Packages*).

### Supply of residential aged care places

At 30 June 2006, there were 166,291 operational residential aged care places, including 2,273 places provided by Multi-Purpose Services and places funded under the Aboriginal and Torres Strait Islander Aged Care Strategy (AIHW 2007f). The number of residential aged care places has grown by 19% since 1998.

Although the absolute number of places has been increasing steadily, the ratio of operational places to the population aged 70 and over (the provision ratio) decreased between 1995 when the provision ratio was 92.2 and 2002 when it reached 81.7 (Table 41.1). Since then the ratio has increased quite substantially—in 2006, it was 85.6, compared to the planning ratio of 88. Provisional figures indicate that the provision ratio for residential care will rise to 86.8 at 30 June 2007. Taken together, the overall provision ratio (residential and community places) had increased from 96.4 in 2002 to 109.3 places for every 1,000 people aged 70 and over (DoHA unpublished data); above the combined target of 108 places.

Aged Care Approval Rounds cater for the ongoing provision of new residential places and aged care packages in the community (CACPs and EACH packages) that are needed to achieve the planning

targets. Service providers who receive an allocation of new places and/or packages are required to make them operational within 2 years or the places are either reallocated or renegotiated. In the year to 30 June 2006, the main allocation from the planning round announced on 15 December 2005 was 11,112 places and packages of which 28% were low-care places, 19% were high-care places, 39% were CACPs and 14% were EACH packages (AIHW 2007f). Allocations from the rounds in 2004–05 and onwards are still not fully reflected in the number of operational places.

**Table 41.1: Operational residential aged care places, 30 June 1996 to 30 June 2006**

Year	Number of places	Places per 1,000 persons aged 70 and over
1996 <sup>(a)</sup>	136,851	90.6
1997 <sup>(a)</sup>	139,058	89.2
1998	139,917	87.1
1999	141,698	85.6
2000	142,342	83.6
2001	144,013	82.2
2002	146,268	81.7
2003	151,181	82.8
2004	156,580	84.2
2005	161,765	85.3
2006	166,291	85.6

(a) Combines nursing homes and hostels places. From 1 October 1997 nursing homes and hostels were combined into a single residential aged care system.

#### Notes

1. Places available in Multi-Purpose Services and places supplied with flexible funding under the Aboriginal and Torres Strait Islander Aged Care Strategy have been included since 1999.
2. Ratios are recalculated using updated population data.

Source: AIHW 2007f.

### Residential aged care service providers

As at 30 June 2006, there were 2,931 mainstream residential aged care services in Australia providing a total of 164,008 places (AIHW 2007f). Also at 30 June 2006, Multi-Purpose Services provided 1,951 residential care places, and services receiving flexible funding under the Aboriginal and Torres Strait Islander Aged Care Strategy provided 332 residential care places. The number of mainstream services has declined since 30 June 1998 when a total of 3,015 services provided residential aged care. At the same time, the corresponding number of operational places has risen, resulting in an increase in the average number of places per facility from 46 at 30 June 1998 to 60 at 30 June 2006.

At a national level, the main providers of residential aged care services were religious organisations (29%), private providers (26%), community-based providers (17%) and charitable organisations (15%). There are state and territory variations in this service provider profile (AIHW 2007f).

### Use by age and sex

Rates of use of residential aged care increase with age—in 2006 rates of residency for people aged 85 years and over were 153 per 1,000 men and 284 per 1,000 women. This compares with rates of 41 per 1,000 men and 66 per 1,000 women aged 75–84 years in the same year. Use of residential aged care is higher for women than men (Figure 41.1). These are similar patterns of use of residential aged care in the 65–74 year age group for both men and women. However, at older ages, use by women is substantially higher than that by men.

At all ages there has been a decrease in usage rates between 2000 and 2006 which is particularly marked among the older groups. To some extent this reflects the growing availability and use of community care

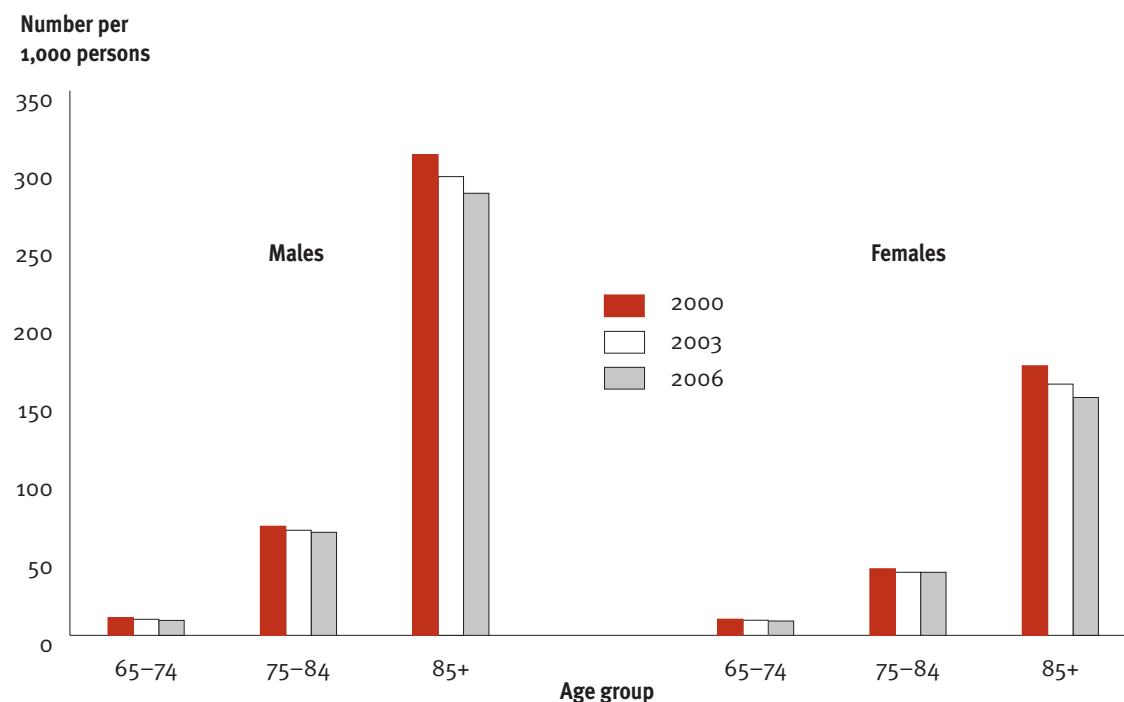
options by people who are assessed as eligible for residential aged care (see Topic 37: *Community Aged Care Packages* and Topic 38: *Extended Aged Care at Home and Extended Aged Care at Home Dementia Packages*).

### Patterns of use by dependency

There has been a consistent and long-term trend of rising dependency levels among permanent residents, as measured by scores on the Resident Classification Scale (RCS) (Gray 2001; see also AIHW report *Residential aged care in Australia*, published annually).

Table 41.2 shows changes in the distribution of residents across the eight RCS categories between 1998 and 2006. The most dramatic change in use can be seen in the highest care category (RCS 1). The proportion of residents classified as RCS 1 has more than tripled, from 7% in 1998 to 23% in 2006. At the other end of the scale, the proportion of residents assessed as needing least care (in categories RCS 7 and RCS 8) has declined from 20% to 9% and from 5% to less than half a percent, respectively.

**Figure 41.1: Age- and sex-specific usage rates of residential aged care, 30 June 2000, 2003 and 2006.**



Source: Table A41.1.

## Length of stay

The number of residents staying in residential aged care for 5 years or more increased from 17% at 30 June 1999 to 23% in 2002, and at 30 June 2006 was a little lower at 21%. The proportion of shorter stays has decreased over the same period (Table 41.3). As at 30 June 2006, 39% of permanent residents had already stayed 3 years or more and over one-fifth had stayed 5 years or more. In part, these patterns reflect structural changes in residential aged care since 1997. Under the unified system of residential aged care, low and high care may often be provided in the same aged care home, resulting in increased lengths of stay for those moving between low and high care.

The data in Table 41.3 measure the length of stay of an existing resident up to a particular point in time (in this case, 30 June each year). It does not take into account how much more time an existing resident will spend in care before leaving; it also excludes residents who separated before the 30 June in the year reported. Figure 41.2 shows differences in average completed

length of stay for male and female permanent residents who left care during a financial year since 2001–02.

In general, female residents have longer average completed length of stay than their male counterparts. For separations during 2005–06, female and male residents had average lengths of stay of 167 weeks and 109 weeks respectively. The aggregate completed length of stay for the period of separations was 146 weeks. These differences between males and females have been consistent over the time period examined.

Death was the major reason for separation from permanent residential aged care in 2005–06 (87%); 4% returned to the community, 4% moved to another residential aged care service and 5% were discharged to hospitals (AIHW 2007f). Among those who died, 17% had stayed for less than 3 months, 19% for between 3 months and 1 year, 45% for 1 to 5 years and 20% for 5 years and more. People leaving residential aged care after a shorter period of stay were more likely to return to the community and less likely to die in residential aged care than those with longer periods of stay.

**Table 41.2: Permanent residents, by level of dependency, at 30 June 1998 to 30 June 2006**

Year	RCS 1	RCS 2	RCS 3	RCS 4	RCS 5	RCS 6	RCS 7	RCS 8	Total
1998	6.9	24.9	20.3	5.7	7.7	9.7	20.3	4.5	100.0
1999	12.4	25.9	17.9	4.6	8.6	10.1	17.4	3.1	100.0
2000	14.4	26.0	16.7	4.7	8.9	10.3	16.8	2.3	100.0
2001	17.3	25.5	15.6	4.7	9.9	10.6	14.9	1.7	100.0
2002	18.9	25.3	14.8	4.6	10.5	10.8	13.8	1.4	100.0
2003	20.5	24.6	14.6	4.7	11.1	10.8	12.7	1.0	100.0
2004	21.9	24.5	14.5	4.8	12.0	10.6	11.1	0.8	100.0
2005	22.5	24.5	14.9	5.6	11.7	10.1	10.1	0.6	100.0
2006	23.4	24.2	15.4	5.7	12.1	9.8	8.8	0.4	100.0

Source: AIHW analysis of DoHA Aged and Community Care Management Information System (ACCMIS) database.

**Table 41.3: Current permanent residents, length of stay to date, 30 June 1998 to 2006 (per cent)**

	1999	2000	2001	2002	2003	2004	2005	2006
< 4 weeks	3.0	2.5	2.7	2.6	2.6	2.6	2.5	2.5
4–13 weeks	5.8	4.8	4.8	5.1	5.1	5.3	5.1	5.0
13–26 weeks	7.8	6.1	6.4	6.4	6.7	6.8	6.4	6.6
26–52 weeks	13.8	11.9	12.1	6.0	12.9	13.1	12.6	12.4
1–2 years	20.5	18.2	18.0	18.8	18.5	19.6	20.2	19.3
2–3 years	14.6	14.5	13.6	13.4	13.7	13.4	14.5	15.0
3–5 years	17.7	20.1	19.6	18.2	17.2	17.0	17.3	18.0
5 years or more	16.8	21.9	22.7	23.4	23.2	22.2	21.4	21.2
<b>Total (number)</b>	<b>132,420</b>	<b>133,387</b>	<b>134,004</b>	<b>136,507</b>	<b>140,297</b>	<b>144,994</b>	<b>149,091</b>	<b>151,737</b>

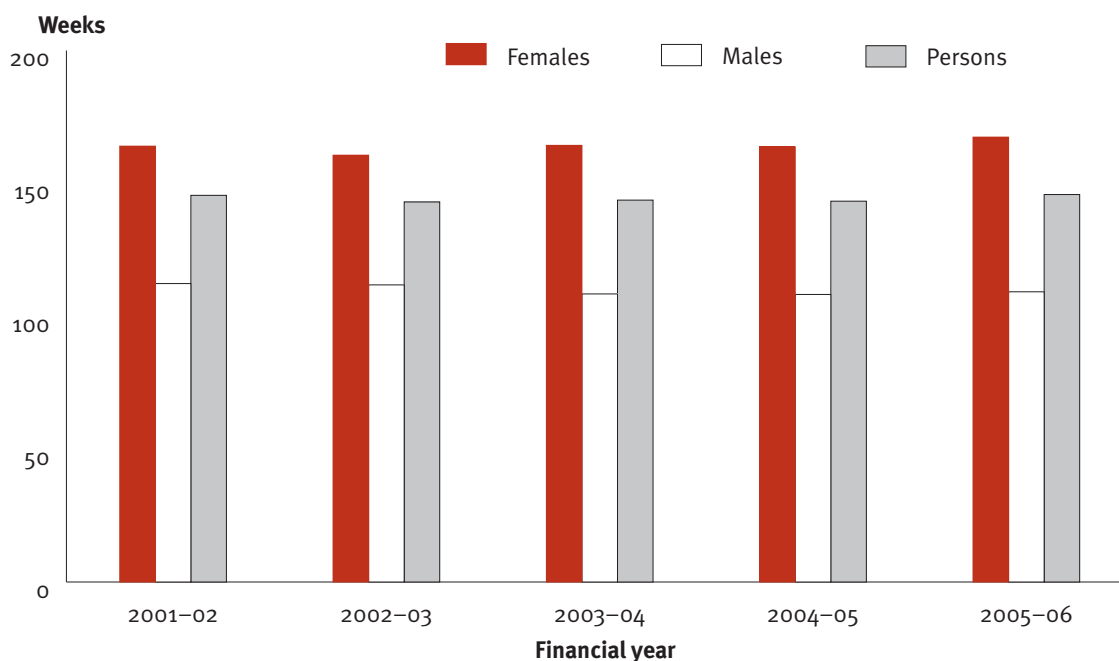
Source: AIHW analysis of DoHA Aged and Community Care Management Information System (ACCMIS) database.

## Occupancy and place turnover

The national occupancy rate in 2006 was 95%, which varied by state and territory and by region. Over the last 8 years the occupancy rate at the national level has remained in a narrow band between 95% and 96% (AIHW 2007f).

The amount of turnover in the system is a function of the number of admissions, length of stay and the overall growth, or reduction, in the size of the system. Turnover of permanent and respite places has been relatively stable over the last 8 years. Approximately one-third of permanent places are associated with new admissions in a year, whereas nominal respite places are used by about 15 to 17 people per year (AIHW 2007f).

**Figure 41.2: Average completed length of stay, separations of permanent residents, 2001–02 to 2005–06.**



Source: AIHW analysis of DoHA Aged and Community Care Management Information System (ACCMIS) database.





## Special population groups

- 42 Older Aboriginal and Torres Strait Islander peoples
- 43 People from non-English speaking countries
- 44 Older people in regional and remote communities
- 45 Older veterans

Based on preliminary estimates from the 2006 Census, there were 517,200 Aboriginal and Torres Strait Islander peoples at 30 June 2006, accounting for 2.5% of the total Australian population. Around 90% of the Indigenous population were of Aboriginal descent only (463,900), around 6% were of Torres Strait Islander origin only (33,100) and around 4% were of both Aboriginal and Torres Strait Islander origin (20,200) (ABS 2007j).

The Indigenous population is not ageing in the same way as the non-Indigenous population. Although the number of older Indigenous people is increasing, the Indigenous population still has a relatively young age structure. Because of this, and because the absolute numbers of older Indigenous people are still relatively small, discussions about ageing may marginalise or exclude the experience and needs of older Indigenous Australians (Cotter et al. 2007).

Such exclusion may also occur because there have been, and remain, significant data issues around estimating the size and composition of the Indigenous population and understanding their health and disability status and patterns of service use. These issues include difficulty in reaching, identifying and counting the Indigenous population in the censuses, and accuracy of identification of Indigenous people in administrative data collections. The Australian Bureau of Statistics (ABS) and the AIHW have directed considerable efforts into resolving these data issues to produce better quality population estimates and administrative data. Nevertheless, it remains the case that considerable uncertainty surrounds a number of key data areas (for more information on data quality issues see AIHW & ABS 2005; ABS 2005c, 2007j).

### Population profile

The age distribution of Indigenous Australians is different from that of non-Indigenous Australians; and the number of Indigenous people declines more sharply beyond the age of 45 than does the number of non-Indigenous people (Figure 42.1). These differences are associated with higher fertility rates and lower life expectancies among the Indigenous Australian population. During 1996 to 2001, life expectancy at birth was 59.4 years for Indigenous males and 64.8 years for Indigenous females compared with 76.6 and 82.0 years for Australian males and females respectively. Some researchers estimate that around one-third of this difference is due to excess mortality in the age group 40–64 (Kinfu & Taylor 2002).

The gap in life expectancy between Indigenous and non-Indigenous Australians is less at older ages. Life expectancy at age 65 for Indigenous males is estimated at 10.7 years and at 12.0 years for Indigenous females, around 6 years less for men and 8 years less for women than for male and female Australians respectively (AIHW 2005b). This has led some researchers to suggest the possibility of a ‘healthy survivor’ effect (Jackson-Pulver 2006).

It is clear that the life expectancy of non-Indigenous Australians is improving, but there are significant data issues which make it difficult to detect any significant improvement for the Indigenous population—moreover, there is no indication of improving survival at older ages as is the case for the non-Indigenous population (ABS 2005c; Cotter et al. 2007).

In 2006, only 11% of Indigenous Australians were aged 50 and over, 2.8% were aged 65 years and over, and less than 1% (0.8%) were aged 75 years and over. Older Indigenous people represent a smaller proportion of the Indigenous population than their non-Indigenous counterparts, among whom people aged 65 years and over represent 13% of the total population (ABS 2004c, 2006d, 2006p). Women make up 53% of Indigenous Australians aged 50 years and over, and 55% of those aged 65 years and over (ABS 2004c).

Despite their relatively small share of the Indigenous population, there were an estimated 36,800 Indigenous people aged 55 years and over in 2006, and 14,900 Indigenous people aged 65 years and over. Experimental projections (ABS 2004c: Table 34) suggest that by 2009 the older Indigenous population will increase to 40,905 people aged 55 years and over, with all of that increase occurring in the population aged 55–64 years.

### Health and disability status

Data about the health and disability status of older Indigenous people has been collected through the ABS National Health Survey (NHS) and the National Aboriginal and Torres Strait Islander Social Survey (NATSISS). The 2002 NATSISS provided, for the first time, information on the prevalence of disability among Indigenous Australians. Not unexpectedly, the survey results reveal that Indigenous people have higher rates of disability across all age groups than non-Indigenous people (Figure 42.2). In 2002, almost three-quarters (72%) of people aged 65 years and over had a disability or long-term health condition. The overall prevalence of severe or profound core activity limitation was similar

for males and females and generally increased with age. In 2002, 12% of Indigenous people aged 55–64 years and 25% aged 65 years and over had a severe or profound core activity limitation (11% and 20% in non-remote areas—1.9 and 1.6 times the rates respectively in non-Indigenous people) (AIHW & ABS 2005).

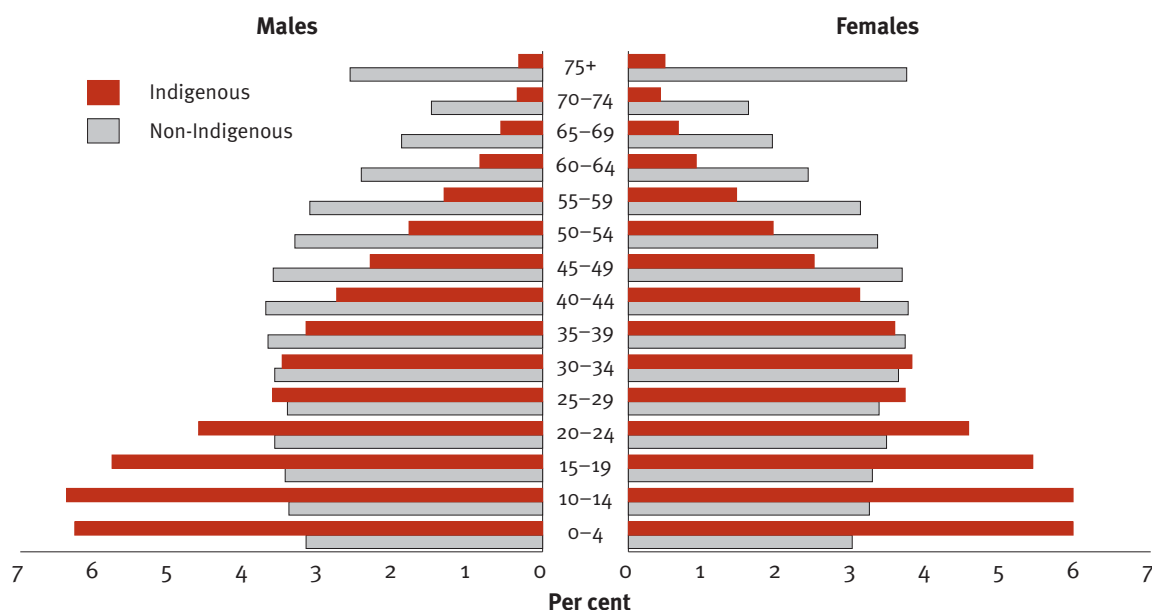
Indigenous people were more likely to report fair or poor health than non-Indigenous people at all ages, with the exception of those aged 18–24 years. The proportion of Indigenous people reporting fair or poor health increased with age, from 8% of people aged 18–24 years to 56% of people aged 65 years and over. Comparatively, around 7% of non-Indigenous people aged 18–24 years and 35% of non-Indigenous people aged 65 years and over reported fair or poor health (AIHW & ABS 2005:91–93). Indigenous people are at higher risk of poor health because of factors such as poor nutrition, substance abuse, exposure to violence, and inadequate housing and education. In 2004–05 most of those 55 years and over (97%) reported having at least one long-term health condition.

From age 25 years, diabetes is considerably more prevalent among Indigenous Australians than among

non-Indigenous Australians. In both populations, prevalence is progressively higher in older age groups, but the prevalence among Indigenous Australians aged 35–44 years was almost as high as among non-Indigenous Australians aged 55 years or over (AIHW & ABS 2005). Similarly, the prevalence of hypertension increases with age for both Indigenous and non-Indigenous Australians. Among people aged 25 years and over, prevalence levels for Aboriginal or Torres Strait Islander people are similar to those experienced by non-Indigenous Australians who are 10 years older. The most marked difference is for those aged 45–64 years where Indigenous rates are 2–3 times higher than for non-Indigenous Australians (AIHW & ABS 2005). The proportion of Indigenous people with end-stage renal disease (ESRD) at ages 45–54 is about the same as the proportion for non-Indigenous people aged 65 and over (AIHW & ABS 2005).

In 2005–6 Indigenous people were almost three times as likely to be hospitalised as people in the general population (1,038.7 separations per 1,000 population compared with 352.4 per 1,000 in the four jurisdictions whose data on Indigenous status is considered adequate for analytical purposes, i.e.

**Figure 42.1: Age and sex profile of Indigenous and non-Indigenous Australians, 2006**



Source: Table A42.1.

Queensland, Western Australia, South Australia and Northern Territory) (AIHW 2007b:Table 8.7). About 80% of the difference in these rates was attributable to higher separation rates for Indigenous people with a principal diagnosis of *Care involving dialysis* or with a procedure involving *Haemodialysis*. A higher proportion of separations for Indigenous people were for those aged 64 years and under compared with separations for other Australians. In 2005–06, only 11% of separations for Indigenous people were for those aged 65 years and over, compared with 36% of separations for non-Indigenous people (AIHW 2007b:Table 8.9).

Indigenous people were less likely to have seen a dentist or doctor about their teeth, with nearly 50% of those 55 years and older having lost 10 or more adult teeth and reporting that they needed dentures but did not have them (AIHW & ABS 2005; ABS 2006p, 2007h).

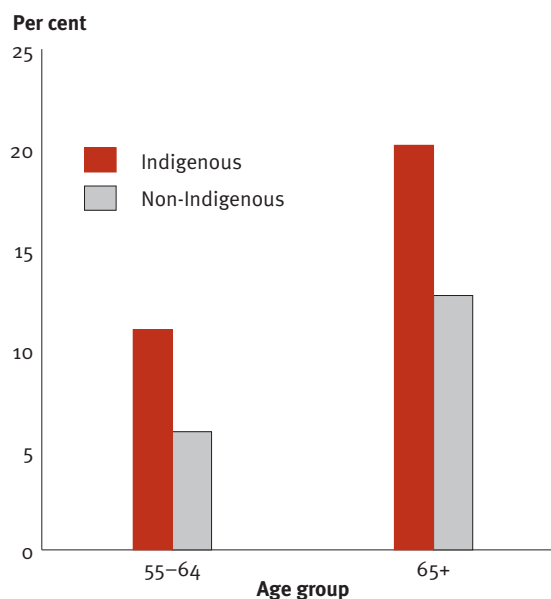
Indigenous people experience substantially higher death rates across all age groups than non-Indigenous people. Between 1999 to 2003, the overall death rate<sup>4</sup> for Aboriginal and Torres Strait Islander Australians was almost three times the rate of non-Indigenous people—75% of Indigenous males and 65% of Indigenous females died before the age of 65, in contrast to the non-Indigenous population where only 26% of males and 16% of females who died were aged less than age 65. Death rates per 100,000 population for people aged 65 years and over were up to one-and-a-half times as high in Indigenous males and females than in the general Australian population (6,273 compared with 4,534 per 100,000 for males and 5,093 compared with 3,763 per 100,000 for females) (AIHW & ABS 2005).

## Aged care services for Indigenous people

When planning service places and packages for older people, the Australian Government uses population estimates for the general population aged 70 and over. However, in the allocation of those places and packages across the country the Government also takes into account the number of Indigenous Australians who are aged 50 and over, (DHAC 2001).

Indigenous Australians have particular aged care needs. For example, the strict conditions within which residential aged care services operate are often unworkable for the care needs of Indigenous communities in regional areas. It has also been

**Figure 42.2: Age-specific rates of profound or severe core activity limitation, persons aged 55 and over in non-remote areas, 2002**



Note: These rates are based on comparable data from the ABS 2002 National Aboriginal and Torres Strait Islander Social Survey and the ABS 2002 General Social Survey. Comparisons cannot be made for remote areas because of methodological differences. These data are not strictly comparable with data presented in Topic 17: *Disability levels*, which are based on the ABS 2003 Disability, Ageing and Carers Survey.

Source: AIHW & ABS 2005.

documented that it is the overwhelming preference of many Indigenous people to remain in their community rather than enter residential care. The Aboriginal and Torres Strait Islander Aged Care Strategy was developed in 1994 after consultation with Indigenous communities and organisations involved in aged care services. This Strategy seeks to tackle issues of access to services, including those related to the rural and remote location of many Indigenous communities. The Strategy established Aboriginal and Torres Strait Islander Flexible Services, which provide aged care services with a mix of residential and community care places that can change as community needs vary. Many of these services have been established in remote areas where no aged care services were previously available.

The flexible services developed as part of the Strategy are now funded under the National Aboriginal and Torres Strait Islander Flexible Aged Care Program. At 30 June 2006, there were around 30 services delivering 580 flexible places for Indigenous clients under the National Aboriginal and Torres Strait Islander Flexible Aged Care Program. These services are funded to deliver culturally

<sup>4</sup> Based on mortality data from Queensland, South Australia, Western Australia and Northern Territory.

appropriate aged care, close to home and country, mainly in rural and remote areas.

In rural and remote locations that are too small to support the standard systems of aged care provision, Multi-Purpose Services also provide a more workable care and treatment model by bringing together a range of local health and aged care services, (often including residential aged care) under one management structure. At 30 June 2006, Multi-Purpose Services provided 1,951 additional residential places outside of mainstream residential and community care settings (AIHW 2007a, 2007f).

In general, the rates of use by Indigenous Australians of community-based care are higher than those of non-Indigenous Australians (Table 42.1). Indigenous Australians constitute 2.6% of Home and Community Care (HACC) clients, 4.0% of Community Aged Care Package (CACP) clients and only 0.6% of permanent residents in mainstream aged care homes.

When age-specific usage rates are considered, Indigenous Australians in all age categories make relatively high use of aged care services compared with non-Indigenous Australians. At 30 June 2006, 27 per 1,000 Indigenous persons aged 60–69 years were using either a CACP, an Extended Care at Home (EACH) package or an EACH Dementia package compared with

2 per 1,000 non-Indigenous people in the same age group. Access to EACH and EACH Dementia packages is restricted by the currently limited availability of these packages in remote and very remote areas. Indigenous people also use residential aged care at higher rates for each age group with the exception of women aged 70 and over—for example, 13 people per 1,000 Indigenous Australians aged 60–69 were permanent residents compared with 4 per 1,000 non-Indigenous Australians. HACC usage rates in the Indigenous population are considered too unreliable to report, but also show higher use by Indigenous Australians than non-Indigenous Australians.

Since 2001, the use of aged care packages (CACPs and EACH packages) increased among Indigenous people of all ages—this is especially true of Indigenous women. For example, at 30 June 2001 usage rates of CACPs was 12 per 1,000 Indigenous Australians aged 60–69 years compared to 27 per 1,000 at 30 June 2006 (Table 42.1 and AIHW 2002b). Non-Indigenous women aged 70 years and over have also increased their use of care packages from 13 per 1,000 to 19 per 1,000 over the same period. Otherwise, the use of care packages and residential care by non-Indigenous Australians has risen only minimally between 2001 and 2006.

**Table 42.1: Age- and sex-specific usage rates of Home and Community Care, Community Aged Care Packages and permanent residential aged care services (permanent residents)<sup>(a)</sup> by Indigenous status, (per 1,000 population)**

Age	Indigenous			Non-Indigenous		
	Females	Males	Persons	Females	Males	Persons
<b>Home and Community Care, 2004–05</b>						
50–59	n.p.	n.p.	n.p.	23.6	15.1	19.4
60–69	n.p.	n.p.	n.p.	69.0	39.6	54.4
70 and over	n.p.	n.p.	n.p.	309.5	196.8	262.0
<b>Aged care packages in the community (CACP, EACH and EACH Dementia), 30 June 2006</b>						
50–59	8.0	6.1	7.1	0.2	0.2	0.2
60–69	33.3	10.0	27.0	1.8	1.2	1.5
70 and over	82.4	58.8	68.2	19.4	9.9	15.3
<b>Permanent residential aged care, 30 June 2006</b>						
50–59	3.3	3.7	3.5	1.0	1.1	1.0
60–69	12.4	13.8	13.1	4.0	4.3	4.1
70 and over	74.4	57.9	67.5	93.9	44.1	72.3

(a) Recipients with unknown Indigenous status have been pro rated.

Note: Use of places and packages provided by Multi-Purpose Services and the National Aboriginal and Torres Strait Islander flexible Aged Care program are not included in this table.

Sources: ABS 2006a; ABS 2004; AIHW analysis of DoHA Aged and Community Care Management Information System (ACCMIS) database and the HACC MDS.



Older people born overseas in non-English-speaking countries, although generally healthier than the rest of the older population, can face barriers in accessing appropriate health and aged care services. An important principle of government is that its services are provided on an equitable basis to all Australians. Consequently, older people born in non-English-speaking countries are one of a number of groups given special consideration in the planning and allocation of government-funded aged care services.

**Demographic profile**

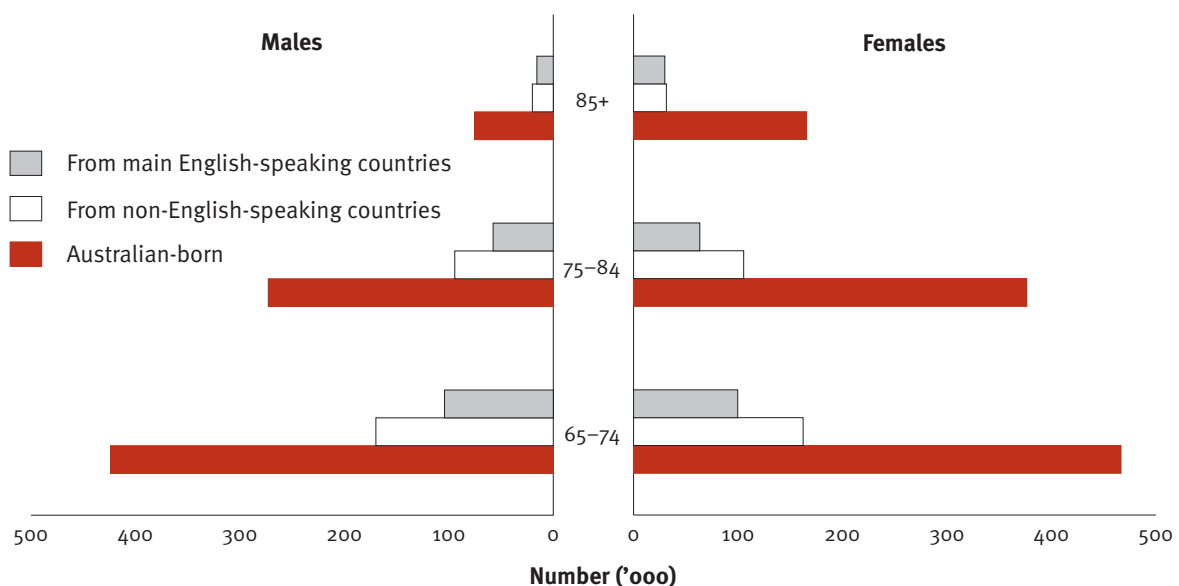
One in five older Australians come from non-English-speaking countries, and this part of the older population is growing faster than other segments (AIHW 2004c; AIHW: Gibson et al. 2001). At 30 June 2006, these older people from non-English-speaking countries numbered over 583,200, compared with 370,500 from the main English-speaking countries and 1,780,400 who were born in Australia. In 2006, the most common countries of birth for non-English-speaking older people were Italy (113,900) and Greece (57,200) (ABS 2007g).

Although people from non-English-speaking countries made up only 15% of the very old population (85 and over) they represented a more significant part of the population aged 75–84 years (21%) and of those aged 65–74 years (23%) (Figure 43.1). In contrast, the

proportion of people in each age group who were born overseas in the main English-speaking countries, were fairly similar (13–14% in each of the three age groups). Over the coming decades, immigrants from non-English-speaking European countries, who arrived in Australia during the peak of post-war immigration up to 1971, will become a more significant part of the very old (ABS 2002a, p.17), and Asian immigrants from countries such as Vietnam, Malaysia and the Philippines will become a more significant part of the younger old, with implications for provision of health and aged services.

Males form a larger proportion of the older population from non-English-speaking countries than is the case for the Australian-born older population. This is particularly the case for the 65–74 year age group, where males outnumber females (51% are males, compared with the older Australian population where 48% are males (Table A43.1)). Compared with the older Australian-born population and the older population born overseas in English-speaking countries, the male share of older age groups among the population from non-English-speaking countries is even more pronounced in the 74–85, 85–94 and 95 years and over age groups (31%, 35% and 39% respectively). This reflects past patterns of immigration and lower levels of marriage at earlier life stages among certain immigration groups, particularly those from Eastern Europe (Jackson 2001, p.28).

**Figure 43.1: Older people, by age, sex and cultural and linguistic background, 30 June 2006**



Source: Table A43.1.



## Health status and life expectancy

People from non-English-speaking countries are a diverse group, and generalisations covering the whole group are often not appropriate. Because of variations within the group, the evidence is unclear as to whether these immigrants have better health than the Australian-born population. Better health tends to be reported among immigrants generally, which may result from Australian immigration being partially determined by their health status, but the evidence among different countries is mixed. Immigrants from non-English-speaking countries tend to have higher life expectancies than those from English-speaking countries, and higher than that in their country of origin. People from countries such as Vietnam and China have particularly high life expectancies (ABS 2002a; AIHW 2006c)

## Use of aged care services

Improving the access of people from non-English-speaking countries to aged care has been a key policy objective over the past 10 years. Strategies have included providing residential aged care services for specific groups, promoting cultural sensitivity in mainstream services, and culturally appropriate assessment and referral. Another initiative is a flexible service model called clustering that brings together people of a particular ethnic background in a single facility.

Representing 21% of the older population, older people from non-English-speaking countries make up 18% of

older Home and Community Care (HACC) clients, 18% of older Aged Care Assessment Program (ACAP) clients, 23% of older Community Aged Care Package (CACP) recipients, 27% of older recipients of Extended Aged Care at Home (EACH) and EACH Dementia packages combined, and around 15% of older permanent residents in aged care accommodation. Although the proportion of older people from non-English-speaking countries in residential aged care has doubled from around 7% in 2001 (AIHW 2002b), these data still suggest that these people are more likely to make use of home-based rather than residential services (AIHW 2002b). This may be partly explained by their younger age structure, cultural preferences and practices concerning family- and home-based care, their English language proficiency and the availability of residential care which is considered to be culturally appropriate. Overseas-born older people who do not speak English enter residential aged care at much higher dependency levels than English-speaking people born overseas and people born in Australia (Gibson 2007).

People from non-English-speaking countries used permanent residential aged care at lower rates than people from other backgrounds. At 30 June 2006, age-specific usage rates of permanent residential aged care by people from non-English-speaking countries was estimated to be 46 per 1,000 persons aged 75–84 years and 184 per 1,000 persons aged 85 years and over. The comparable figures for people born overseas in an English-speaking country were 49 and 238 respectively, and 57 and 248 respectively for people born in Australia (Table 43.1).

**Table 43.1: Usage rates of selected aged care programs, by cultural and linguistic diversity<sup>(a)</sup> (per 1,000 people)**

	Overseas-born								
	Non-English-speaking countries			Main English-speaking countries			Australian-born		
	65–74	75–84	85+	65–74	75–84	85+	65–74	75–84	85+
HACC (2004–05)	94.6	270.1	423.6	72.0	235.5	397.0	111.6	288.3	474.2
ACAP (2004–05)	10.2	55.1	164.1	7.2	44.7	153.3	11.3	56.2	170.4
CACP (at 30 June 2006)	3.1	17.9	42.0	2.1	12.0	34.4	3.5	12.7	34.7
EACH & EACH Dementia (at 30 June 2006)	0.4	1.5	3.7	0.3	0.8	1.8	0.4	0.9	1.9
Permanent residential aged care (at 30 June 2006)	7.1	46.4	183.8	6.8	49.0	237.9	10.5	56.7	248.2

(a) The cultural diversity classification is based on country of birth. Overseas-born people from the main English-speaking countries are those born in New Zealand, United Kingdom, Ireland, United States of America, Canada or South Africa. People from non-English-speaking countries are those born overseas in other countries.

Source: Table A43.1, Table A43.2; ABS 2006d, 2007g.

In contrast, rates of use CACPs are higher among people from non-English-speaking countries than among those from English-speaking countries, at 18 per 1,000 persons aged 75–84 years, and 42 per 1,000 persons aged 85 years and over, compared with around 13 and 35 per 1,000 respectively. A similar pattern is seen with use of community care packages providing high level care (EACH and EACH Dementia packages). Overall, there is a slightly lower level of use of HACC services among older people born overseas compared with older people born in Australia, although the use of HACC services by people from non-English-speaking countries is slightly higher than for people born overseas in the main English-speaking countries. Thus, CACPs, EACH and EACH Dementia packages, which are intensive packaged forms of community support, accessed through a single entry point (ACAT assessment) appear to have been particularly successful in providing services to people born in non-English-speaking countries.

# OLDER PEOPLE IN REGIONAL AND REMOTE COMMUNITIES 44

In general, people who live in regional and remote areas of Australia have higher levels for several health risk factors and higher mortality rates than those living in major cities. This has raised questions about whether those in regional and remote areas have had inadequate access to health services, greater exposure to occupational or environmental hazards, more adverse social and economic conditions, or some combination of these factors (AIHW 2006c).

Studies have shown that people's geographical location is an important factor when considering their health and patterns of service use (AIHW 2005e) but few published analyses by geographical location look specifically at older Australians. As a result, the following sections on 'health status' and 'patterns of health service provision and use' make general points about people who live in regional and remote areas but include specific examples that are relevant to older people. The analysis of use of aged care services relates specifically to older people.

## Where older people live

Regional and remote areas comprise large regional centres, coastal settlements, small inland towns, farms and so-called outback Australia. The shared experience of people in these areas is that they live some distance from the major population centres (Box 44.1).

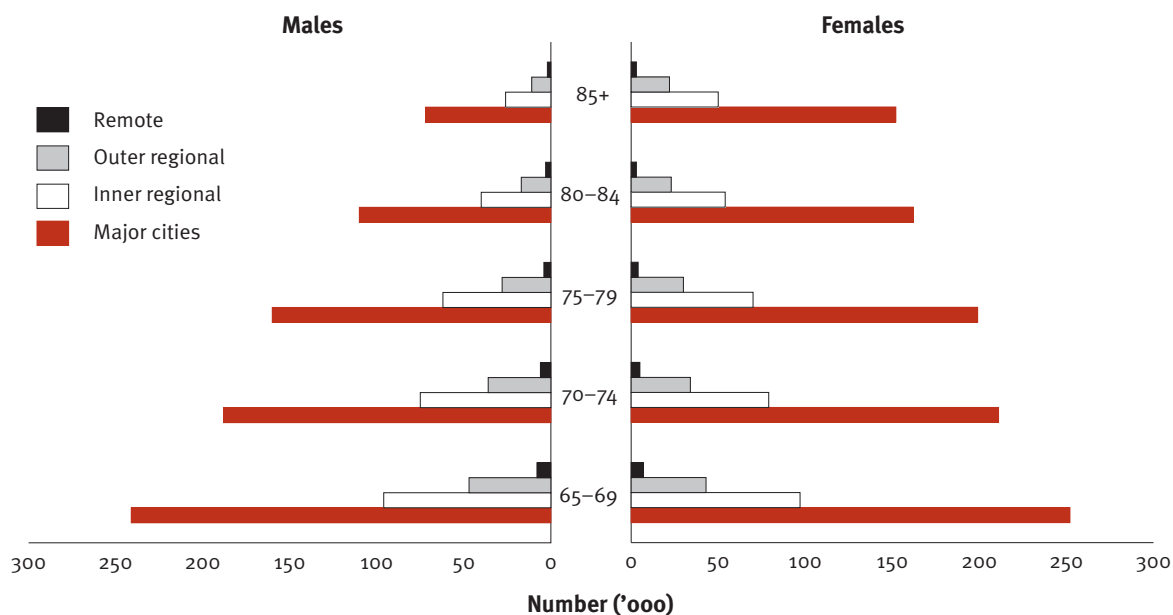
### Box 44.1: Classifying the areas where we live

The ABS Australian Standard Geographical Classification (ASGC) Remoteness Areas classification (AIHW 2004e) allocates one of five remoteness categories to areas depending on their distance from a range of five types of population centre. Areas are classified as Major cities, as Inner regional or Outer regional ('regional' when taken together), or Remote and Very remote ('remote' when taken together).

The bulk (66%) of the Australian population lives in Major cities, 31% in regional areas and 3% in remote areas. Indigenous people live mainly in Major Cities (30%) and regional areas (43%), with the remaining 27% living in remote areas. Although Indigenous Australians constitute 2.4% of the total Australian population, they make up 12% of the population in Remote areas and 45% in Very remote areas.

Compared with the general population (see Box 44.1), older Australians are less likely to live in major cities or remote areas and more likely to live in regional areas. At 30 June 2006, there were 1,748,400 (64%) older people living in Major cities, 649,300 (24%) in Inner

Figure 44.1: Older people, by age, sex and geographical area, 30 June 2006



Source: Table A44.1.

SPECIAL POPULATION GROUPS

regional areas, 291,500 (11%) in *Outer regional* areas, 32,700 (1.2%) in *Remote* and 12,300 (0.5%) in *Very remote* communities (Table A44.1 and Figure 44.1). Overall, 36% of the population aged 65 and over lived outside of major Australian cities, which is slightly higher than the proportion of those aged under 65 years who live outside of major cities (33%).

Some factors that influence the geographical distribution of older people relative to younger people include:

- the tendency among some older people to relocate to coastal and other non-urban areas in retirement (see Topic 2: *The changing demographic profile*)
- the migration of older people who require access to services not available in the more remote centres
- the movement of younger people to major cities for employment and other opportunities
- the age and geographic distributions of the Indigenous and non-Indigenous populations.

## Health status and life expectancy

On a number of health status measures, people who live in regional or remote areas generally do poorer than people who live in major cities. For example, compared with people in major cities, those living in regional or

remote areas are more likely to be smokers, to drink alcohol in hazardous quantities, to be overweight or obese, and to be physically inactive (AIHW 2005e). Also, life expectancies are highest in *Major cities* and lowest in *Very remote* areas, dropping from 78 years to 72 years for men and 84 years to 79 years for women (AIHW 2005e). In addition, death rates are generally higher in *Remote* and *Very remote* areas, an exception being death rates among those aged 85 years and over (Figure 44.2).

Higher death rates and poorer health outcomes in regional and remote areas are likely to be the result of factors such as higher levels of socioeconomic disadvantage (lower incomes and lower levels of education), poorer access to health services, higher levels of personal health risk factors such as smoking, and environmental factors (AIHW 2005e, 2006c). The relatively large proportion of Indigenous people in *Remote* and *Very remote* areas (1.2% and 4.5% respectively) compared with *Major cities*, coupled with their poor overall health is reflected in higher rates of death in remote areas.

The differences in regional life expectancy are likely to be strongly affected by much lower Indigenous life expectancy and also by the potential migration of the frail aged to less remote areas. Interestingly, life expectancies for non-Indigenous people are greater in remote areas than in *Major cities* (AIHW 2005e). It

**Figure 44.2: Death rates per 100,000 people, by age, sex and geographic area, 2002– 2004**

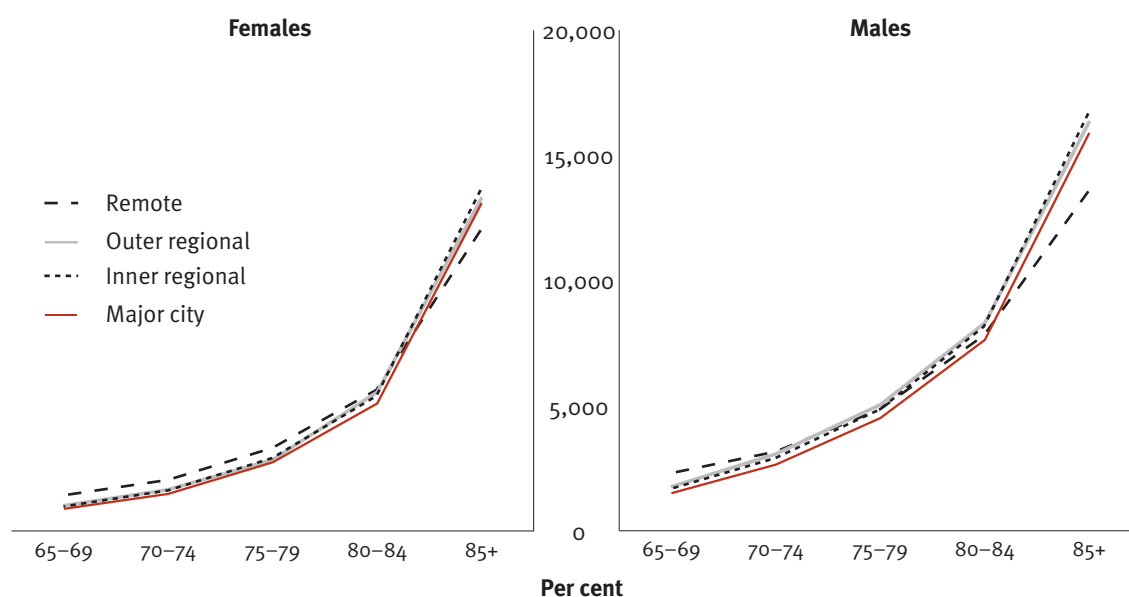


Table A44.2.

is believed that older people in remote areas tend to move to less remote areas so as to access services, particularly after the onset of ill-health. The resulting concentration of healthy older people in remote areas may help to explain their apparent lower rates of death at ages 85 or more (Figure 44.2) (AIHW 2006c).

Because Indigenous Australians make up a substantial proportion of *Remote* and *Very remote* populations, 'remote' issues can often be related to Indigenous issues. For example, overall rates of cervical cancer death tend to be higher in remote areas, but not in the non-Indigenous people who live there. In this case, the extra challenge is one of Indigenous health rather than 'remote' health as such (AIHW 2003b, 2006c).

## Patterns of health service provision and use

Typically, the supply of health workers declines with remoteness. Generally, people in regional and remote areas have less access to medical practitioners, including general practitioners and medical specialists, and a range of other health services including dentists (AIHW 2005e, 2006c). Nurses are more evenly distributed across the regions than medical practitioners, ranging from 1,120 nurses per 100,000 in *Major cities* to 1,095 per 100,000 in *Very remote* areas.

Health workers in regional and especially remote areas tend to work longer hours than those in *Major cities*, which may partly compensate for the shortfall in the numbers of health workers in these areas, but this could impose additional strain and result in difficulties retaining staff in the longer term (AIHW 2005e, 2006c).

Different patterns of service provision in city, regional and remote areas can lead to inappropriate comparisons of resource use and access to services (AIHW 2003b). For example, people in regional and remote areas make greater use than people in major cities of hospital emergency departments as a source of primary care services and of hospital beds as a source of aged care services.

The rural and remote location of some communities can affect access to some health and aged care services. For example, there were differences in the rate at which people from *Major cities* and regional and remote areas were admitted to hospital for a range of surgical procedures in 2002–03. Notably, the rate of admission for coronary artery bypass graft surgery and coronary angioplasty was lower for residents of regional and especially remote areas than for those in *Major cities*. This contrasts with the higher death rates

from coronary heart disease in these areas. Rates of surgical procedure are likely to be affected by issues such as need and access, both physical and financial (AIHW 2006c).

On the other hand, rates of breast cancer and cervical screening in 2001 appeared higher than in *Major cities* (AIHW 2005e). Also, there were more hospital beds per person in regional and remote areas in 2002–03 (respectively, 3 beds and 5 beds per 1,000 residents) than in *Major cities* (2.5 beds). Compared with hospitals in *Major cities*, hospitals in regional and remote areas were less likely to be accredited under a national accreditation scheme, and tended to be considerably smaller. Many hospitals outside *Major cities* had fewer than 30 beds, but about 30 had between 100 and 300 beds (AIHW 2005e, 2006c).

## Use of aged care services

Table 44.1 shows the use of aged care services in each geographic area (see Box 44.1). Remote areas have relatively fewer people in residential care than other regions (23 residents per 1,000 people aged 65 years and over compared with 56 in *Major cities*) but relatively more people who receive Community Aged Care Packages (CACPs) (17 recipients per 1,000 population compared with 11 in *Major cities*) and Home and Community Care (HACC) services (254 clients per 1,000 population compared with 199 in *Major cities*). People living in *Outer regional* areas also tend to use residential aged care services relatively less often and HACC services relatively more often than people in *Major cities*.

The referral rate from the Aged Care Assessment Program (ACAP) is lower in remote areas (63 per 1,000) compared with clients in metropolitan areas (104 per 1,000) and clients in regional areas (95 per 1,000) (ACAP NDR 2006).

Residential aged care services in *Remote* and *Very remote* areas have markedly fewer places than their counterparts in other areas: 61% of services in *Remote* areas and 81% of services in *Very remote* areas had 20 or fewer places and most of the remainder in these regions had 40 or fewer places compared with an Australian average of 56 places per service. Similarly, CACP outlets operating in *Remote* and *Very remote* areas were smaller in size with 75% in *Remote* areas and 100% in *Very remote* areas having 20 packages or less (AIHW 2007a, 2007f). As noted above, however, both CACP and HACC services in remote areas have higher client useage rates than the rates in *Major cities*.

These data on provision and use of aged care services are limited to mainstream aged care services. In addition to these, the Australian Government also provides flexible aged care services through Multi-Purpose Services in rural and remote communities, and through services under the National Aboriginal and Torres Strait Islander Aged Care Strategy. As at June 2006, these services provided 2,273 residential care places and 556 Community Aged Care Packages.

**Table 44.1: Use of aged care services, by age and geographic area, latest years**

Age	Major cities	Inner regional	Outer regional	Remote <sup>(a)</sup>
Per 1,000 population <sup>(b)</sup>				
<b>Residential aged care residents in Australia (30 June 2006)</b>				
65-74	9.9	9.0	8.1	7.2
75-84	56.5	55.8	46.8	26.9
85+	241.5	260.9	210.7	105.6
65+	56.4	54.7	44.1	23.5
<i>Clients 65+ (number)</i>	98,677	35,544	12,859	1,057
<b>Community Aged Care Packages recipients (30 June 2006)</b>				
65-74	3.0	3.2	3.1	10.3
75-84	14.0	13.4	11.0	22.5
85+	36.7	36.6	27.3	38.1
65+	11.3	10.7	8.5	17.0
<i>Clients 65+ (number)</i>	19,808	6,918	2,483	763
<b>Extended Aged Care at Home<sup>(c)</sup> recipients (30 June 2006)</b>				
65-74	0.4	0.4	0.3	..
75-84	1.0	1.0	1.1	..
85+	2.2	2.1	2.1	..
65+	0.9	0.8	0.8	..
<i>Clients 65+ (number)</i>	1,488	530	227	..
<b>Home and Community Care clients (1 July 2004 to 30 June 2005)</b>				
65-74	95.0	107.3	123.4	156.2
75-84	261.1	300.7	328.6	354.6
85+	452.6	518.1	553.3	520.1
65+	199.0	220.8	239.3	253.9
<i>Clients 65+ (number)</i>	339,579	139,985	68,011	11,120

(a) Remote and Very remote categories have been combined.

(b) Population denominators relate to the year reported.

(c) EACH and EACH Dementia recipients.

Note: The data are classified according to the remoteness area of the service except for HACC which uses the client location.

Source: AIHW analysis of DoHA Aged and Community Care management Information System (ACCMIS) data and AIHW analysis of HACC MDS.



Veterans and their widows/widowers make up a sizeable minority of the older Australian population. There are currently 266,100 Department of Veterans' Affairs (DVA) income support beneficiaries aged 65 and over representing 10% of all older Australians; among people aged 85 years and over, an even larger proportion (27%) are in receipt of DVA income support (Table A45.1; Table 1.1).

Including veterans, their dependants, war widows and widowers, and DVA health card holders it is estimated that around 394,516 Australians received some form of assistance from DVA at 30 June 2007 of whom about 78% were aged 65 years and over (DVA 2007a). This may be in the form of an income support and/or disability pension, and may include access to assistance with medical or pharmaceutical services through provision of a repatriation health care card (Gold, White or Orange Card) or a Commonwealth Seniors Health Card. Around 6% of older Australians received a Department of Veteran's Affairs (DVA) disability or war widow(er)s pension, 10% received some form of DVA income support, and 9% held a Gold or White DVA health care treatment card (derived from DVA 2007e, 2007f).

Veterans are also eligible for mainstream aged care services available to all Australians. It is estimated that DVA clients make up at least 17% of permanent residents of aged care services and 9% of Home and Community Care (HACC) clients (AIHW 2007f; DoHA 2006a). Data from the 2002 census of Community Aged Care Package recipients indicate that, at that time, 14% of CACP recipients were DVA clients (AIHW 2004b).

## Health and health care

A 2006 survey of veterans and war widows found that the most common medical condition reported was vision problems, alleviated by glasses or contact lenses (90%), (DVA unpublished data). However, among those with vision impairment there has been an increase in degenerative eye conditions such as macular degeneration since the previous 2004 survey (see also Topic 26: *Vision problems*). Other prevalent medical conditions in 2006 included complete or partial deafness (55%), foot/leg problems that affect mobility (54%), arthritis (51%), high blood pressure (47%), and dementia and memory loss (41%). Since the previous survey in 2004 there has been a noticeable increase in self-reported mental health conditions, including insomnia, anxiety, depression and Post-Traumatic Stress Disorder (see also Topic 23: *Mental health*).

Specific health care benefits and services are available to eligible veterans and dependants with one of three treatment entitlement cards. These entitle holders to health services (Gold and White Cards) and pharmaceuticals (Orange Card). Holders of a Gold Card are entitled to the full range of health care and pharmaceutical services at no cost to them, and White Card holders are entitled to free health services for service-related disabilities or illnesses. General practitioner and specialist medical services, dental care, hospital care and psychological services are available. White Card holders may also have an Orange Card.

Holders of a Gold or White Card constituted the 'treatment population', which in June 2007 consisted of 293,623 people, 78% of whom were aged 65 and over (DVA 2007f). Holders of an Orange Card (14,963 people), (either alone or with a White Card) were all aged 70 and over (DVA 2007b).

In 2005–06, 31% of the treatment population received care from private hospitals, 96% accessed other medical services, 73% received allied health services, 96% received medicines and dressings through the Repatriation Pharmaceutical Benefits Scheme and 11% received community nursing services (DVA 2006a).

Veterans in residential aged care still retain entitlements to assistance with health and pharmaceutical care. A study of health service use by Gold Card holders aged 70 and over found that, compared with Gold Card holders living in the community, those living in residential aged care had, on average, more general practitioner and local medical officer consultations, a lower rate of specialist use with fewer specialist consultations, filled more prescriptions under the Repatriation Pharmaceutical Benefits Scheme and had lower rates of hospital use although the average stay was slightly longer (AIHW: Anderson & Lloyd 2007 in press).

Veterans' mental health problems are as varied as the conflicts in which ex-servicemen and women have served. Society's understanding and acceptance of mental health problems has improved dramatically since the men and women who served in World War I returned home to the care of dedicated repatriation hospitals. Views about where to provide mental health treatment have changed considerably since then—current thinking is that veterans benefit from being treated in the community, close to family and friends, with as little disruption as possible to their daily routines.

As at June 2007, it is estimated that some 143,000 people within the DVA treatment population have some experience of mental health concerns. This population includes those people who have an accepted mental health disability and those who have received some type of mental health treatment through their use of mental health services or pharmacological interventions. Within this population, approximately 55,000 have an accepted mental health disability—38,000 were receiving treatment as at June 2007 while approximately 17,000 did not receive treatment during 2006–07. A further 88,000 have no accepted mental health disability but had received some form of mental health treatment or pharmacological intervention—80,241 were aged 65 and over. The most common conditions among veterans with an accepted mental health disability are generalised anxiety disorder, depression, alcohol dependence and post-traumatic stress disorder.

The Veterans and Veterans' Families Counselling Service provides counselling and group programs to Australian veterans/peacekeepers and their families under the *Veterans' Entitlements Act 1986*. The service provides centre-based counselling, case management, outreach programs, a telephone crisis service (Veterans Line), group sessions and other specialist programs. Nearly 24,500 clients received counselling services in 2005–06 (DVA 2006a:113–21.)

## DVA pensions

At 7 July 2007, 394,516 people were receiving some form of DVA-funded income support or a compensation pension. DVA clients can receive either or both types of pension—52% of all DVA disability pensioners (92% for those aged 65 and over) and 76% of people on a war widow(er)s' pension also received some amount of income support (DVA 2007e).

The Service Pension is the main income support pension and is similar in many ways to the Age Pension (see Topic 13: *Age Pension and superannuation*). In July 2007, there were 113,698 veteran service pensioners and 96,864 partner/widow(er) service pensioners and 79% were aged 65 and over. The Service Pension is paid on the basis of age or invalidity at the same single and couple rates as the Age Pension—from September 2007, a maximum of \$537.70 a fortnight for a single person and \$449.10 a fortnight for each member of a couple (DVA 2007d). It is also subject to income and assets tests. However, an important difference is that, when paid on the basis of age, the Service Pension is available to veterans 5 years earlier than the Age

Pension. As with the Age Pension, the qualifying age for females is being progressively increased to bring it into line with the qualifying age for males. At the time of writing, female veterans were eligible for a service pension at 59.5 years of age. The qualifying age for females is being progressively increased from 55 to 60 in a similar way to the increase in the Age Pension eligibility age for women; from January 2014 the qualifying age for both male and female veterans will be age 60 (DVA 2007c).

The War Widow's/Widower's and Orphan's Pensions, Income Support Supplement, Disability Pension and various other allowances are payments to service personnel or their dependents. No DVA compensation payment is taxable or subject to means testing (DVA 2006b). The Disability Pension, which is a payment for injuries or disease caused or aggravated by war or defence service, was being paid to 139,727 people (57,995 people aged 65 and over) in July 2007 and the War Widow's/Widower's Pension was being paid to 110,592 (106,317 aged 65 and over).

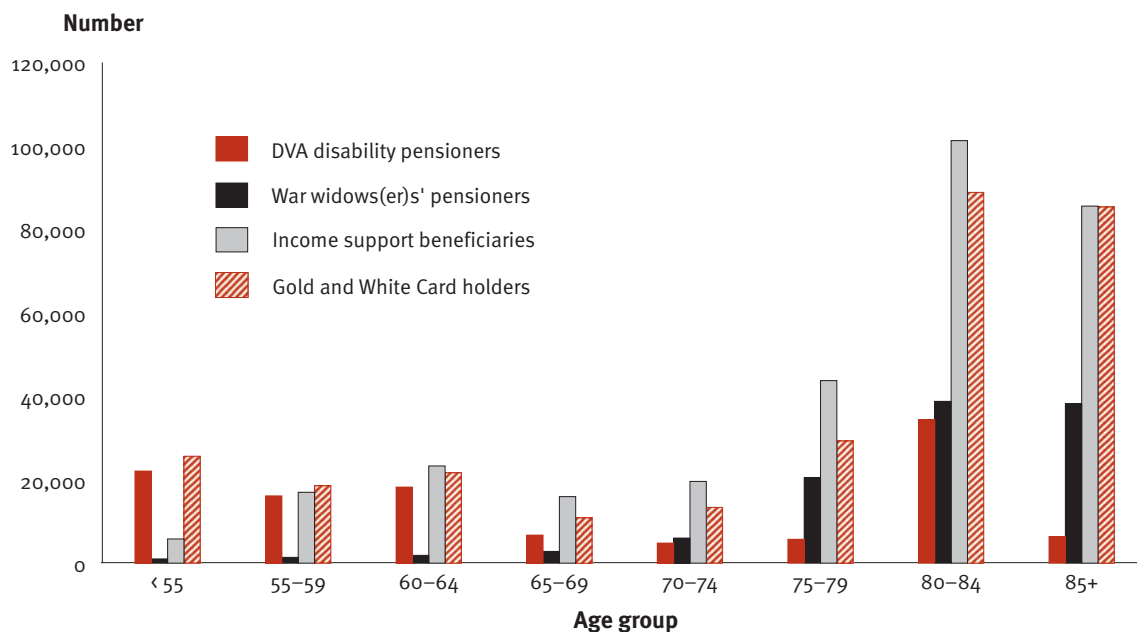
The majority of veterans on a Disability or Service Pension (69%) and War Widow's/Widower's Pension (96%) were aged 65 years and over. Of the 121,800 older veterans on a Disability Pension, 69% served in World War II, 15% served in the Korean War, the Malayan Emergency or the Far Eastern Strategic Reserve, and 7% served in Vietnam. Most older disability and war widow(er) pensioners (73% and 62% respectively) were aged 80–89 (DVA 2007e).

## Veterans' Home Care and DVA community nursing

The Veterans' Home Care (VHC) program began in January 2001 providing low-level care to assist veterans, war widows and war widowers to remain in their own homes for as long as possible. It provides domestic assistance, personal care, home and garden maintenance, and respite care to eligible members of the veteran community. Other services such as delivered meals and community transport are provided through special arrangements with state and territory governments. Veterans and war widows or widowers are required to provide a co-payment for VHC services, except for respite care. In 2005–06, 77% of those approved for VHC were approved for one of the four types of assistance, and 22% for two (DVA 2006a:111–12).

During 2005–06, 72,541 people received services through VHC, 98% (70,997) of whom were aged 65 and over. Nearly half (44%) of the VHC clients were

**Figure 45.1: DVA disability pension recipients, income support beneficiaries, and treatment card holders, by age and sex, June 2007**



Source: Table A45.1.

aged 80–84 with an additional 28% aged 85–90 (Table 45.1). For those aged 65 years or over, domestic assistance (92% of clients) and safety-related home and garden maintenance (20%) were the services received by most clients at some time during the year (Table 43.2). Similar proportions of clients in each age group used domestic assistance. However, the use of personal care and respite care for those aged 65 years and over increased with age, whereas the reverse was true for home and garden maintenance.

Veterans and war widows/widowers with higher personal care needs or specific clinical needs can access personal care and nursing services through the DVA community nursing program. The community nursing program aims to assist veterans and war widows/widowers to continue living in their own homes, avoiding early admission to hospital and residential care. DVA's community nursing services provided personal care services to 11% of its 32,100 older clients. As with VHC, 98% of community nursing clients are aged 65 years and over (AIHW 2007c). Veterans and war widows/widowers may also be referred to other DVA services such as the Rehabilitation Aids and Appliances program or minor home modifications through DVA's HomeFront program.

## Other services

Other DVA services are available to veterans and their families. These include a free financial information service and housing assistance through the Defence Service Homes Scheme, as well as home loans and insurance. Less direct, but still important, services include commemoration activities. One activity in particular is the Their Service—Our Heritage Program, which provides an avenue for educating the community about and acknowledging the service and sacrifice of Australia's veterans. Details of benefits and services provided to DVA clients are available on DVA's website (<[www.dva.gov.au](http://www.dva.gov.au)>).

**Table 45.1: Clients receiving assistance from Veterans' Home Care and DVA community nursing, by age and sex, 2005–06**

	< 65	65–69	70–74	75–79	80–84	85–89	90+	Total 65+	Total
<b>Veterans' Home Care</b>									
Males	1.7	0.6	1.0	3.2	23.6	15.4	3.9	47.7	49.4
Females	0.5	0.6	2.2	10.2	20.7	12.4	3.9	50.0	50.6
<b>Persons</b>	<b>2.1</b>	<b>1.2</b>	<b>3.2</b>	<b>13.4</b>	<b>44.3</b>	<b>27.9</b>	<b>7.8</b>	<b>97.8</b>	<b>100.0</b>
<b>Persons (number)</b>	<b>1,544</b>	<b>890</b>	<b>2,307</b>	<b>9,743</b>	<b>32,155</b>	<b>20,219</b>	<b>5,681</b>	<b>70,995</b>	<b>72,541</b>
<b>DVA Community Nursing</b>									
Males	1.7	0.6	1.0	2.9	22.6	17.6	6.1	50.8	52.5
Females	0.5	0.4	1.5	7.0	17.5	13.8	6.9	47.1	47.5
<b>Persons</b>	<b>2.1</b>	<b>1.1</b>	<b>2.5</b>	<b>9.9</b>	<b>40.1</b>	<b>31.4</b>	<b>13.0</b>	<b>98.0</b>	<b>100.0</b>
<b>Persons (number)</b>	<b>681</b>	<b>344</b>	<b>813</b>	<b>3,240</b>	<b>13,122</b>	<b>10,278</b>	<b>4,260</b>	<b>32,057</b>	<b>32,738</b>

Source: AIHW 2007c; DVA unpublished data (current as at 30 March 2007 but subject to change).

**Table 45.2: Services received by Veterans' Home Care clients, by age, 2005–06**

	< 65	65–74	75–84	85+	Total 65+	Total
	<b>Per cent within client age group</b>					
Domestic assistance	86.8	89.7	92.5	92.4	92.3	92.2
Home and garden maintenance	26.8	25.4	21.2	17.1	19.9	20.0
Respite care (excluding residential respite)	10.0	7.0	9.0	13.1	10.4	10.4
Personal care	1.0	2.3	3.2	5.5	4.0	3.9
<b>Total (number)</b>	<b>1,544</b>	<b>3,197</b>	<b>41,899</b>	<b>25,901</b>	<b>70,997</b>	<b>72,541</b>

Note: Total number of recipients will be less than the sum for all service types, as one recipient may receive more than

Source: AIHW 2007c; DVA unpublished data (current as at 30 March 2007 but subject to change).



**Appendix tables**

**References**

**List of tables**

**List of figures**

## APPENDIX TABLES

**Table A1.1: Estimated resident population of Australia, by cultural diversity, age and sex, 30 June 2006**

Age/sex	Australian-born		Overseas-born <sup>(a)</sup>		Total	
	Indigenous <sup>(a)</sup>	Non-Indigenous	English-speaking countries	Other countries <sup>(b)</sup>	Per cent	Number
<b>Females</b>						
0-49	1.1	26.4	2.4	4.3	34.1	7,033,638
50-64	0.1	5.7	1.2	1.8	8.8	1,813,760
65+	0.0	4.9	0.9	1.5	7.3	1,500,672
<i>Total</i>	1.2	37.0	4.5	7.5	50.2	10,348,070
<b>Males</b>						
0-49	1.1	27.2	2.6	4.1	35.0	7,212,143
50-64	0.1	5.6	1.3	1.8	8.8	1,811,840
65+	0.0	3.7	0.9	1.4	6.0	1,233,435
<i>Total</i>	1.2	36.5	4.7	7.3	49.8	10,257,418
<b>Persons</b>						
0-49	2.2	53.6	5.0	8.4	69.1	14,245,781
50-64	0.2	11.3	2.4	3.6	17.6	3,625,600
65+	0.1	8.6	1.8	2.8	13.3	2,734,107
<b>Total</b>	<b>2.4</b>	<b>73.5</b>	<b>9.2</b>	<b>14.8</b>	<b>100.0</b>	
<b>Total (number)</b>	<b>501,479</b>	<b>15,147,146</b>	<b>1,904,167</b>	<b>3,052,696</b>		<b>20,605,488</b>

(a) Limited aggregate population data from the 2006 Australian Census was released during the preparation of this topic. Because the age and sex breakdown for the Indigenous population and for the overseas-born population had not been released, this table presents the estimated resident population at 30 June 2006 based on 2001 Australian Census data. The preliminary age and sex breakdown of the total Australian population based on the 2006 Australian census is presented in Table 1.1.

(b) The cultural diversity classification for overseas-born people is based on country of birth. The English-speaking-background category consists of people whose country of birth was New Zealand, United Kingdom, Ireland, United States of America, Canada, and South Africa. The 'Other countries' category consists of people born overseas in other countries.

Sources: ABS 2004c, 2006d, 2007g.



**Table A1.2: Selected countries of birth of overseas-born Australians, by age, 2006**

Country of birth	50-64	65-74	75-84	85+	Total 50+	Total 65+
<b>Proportion of immigrant age group (%)</b>						
English-speaking countries	40.3	38.0	37.8	47.0	39.7	38.9
Italy	6.0	11.6	13.4	9.2	8.6	11.9
Greece	3.7	7.3	4.8	2.8	4.7	6.0
Germany	3.6	3.8	4.6	3.2	3.8	4.0
Netherlands	3.0	3.2	3.8	3.8	3.2	3.4
China	2.8	3.2	3.1	3.2	2.9	3.2
Poland	1.4	1.2	3.6	3.7	1.8	2.3
Croatia	1.6	2.5	1.3	0.7	1.7	1.9
Serbia and Montenegro	1.6	2.1	1.5	1.2	1.7	1.8
India	2.0	1.7	1.8	1.6	1.9	1.7
Malta	1.9	1.9	1.5	1.1	1.8	1.7
Viet Nam	2.8	1.6	1.6	1.5	2.3	1.6
Hungary	0.6	1.1	1.3	1.4	0.8	1.2
Egypt	1.0	1.1	1.3	1.0	1.1	1.1
Lebanon	1.7	1.3	1.0	0.6	1.5	1.1
Former Yugoslav Republic of						
Macedonia	1.4	1.1	0.7	0.4	1.2	0.9
Sri Lanka	1.3	0.9	0.9	0.9	1.1	0.9
Austria	0.6	0.8	0.9	0.8	0.7	0.9
Malaysia	2.0	1.0	0.6	0.5	1.5	0.8
Philippines	2.3	0.8	0.8	0.9	1.6	0.8
Other	18.4	13.8	13.9	14.6	16.5	13.9
<b>Total overseas-born (%)</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Total overseas-born (number)</b>	<b>1,249,231</b>	<b>535,859</b>	<b>320,743</b>	<b>97,100</b>	<b>2,202,933</b>	<b>953,702</b>

*Notes*

1. Components may not add to total because of rounding.

2. English-speaking countries include New Zealand, United Kingdom, Ireland, United States of America, Canada and South Africa.

Source: ABS 2007g.

**Table A3.1: Registered marital status, by age and sex, 2006, 2001, 1996**

	Number						Per cent					
	Married <sup>(a)</sup>	Divorced	Separated	Widowed	Never Married	Total number	Married <sup>(a)</sup>	Divorced	Separated	Widowed	Never married	Total %
<b>2006</b>												
<b>Males</b>												
65-74	501,100	65,600	21,600	39,500	40,700	668,500	75.0	9.8	3.2	5.9	6.1	100.0
75-84	289,400	23,800	8,900	67,500	22,800	412,500	70.2	5.8	2.2	16.4	5.5	100.0
85+	55,300	3,400	1,600	39,000	5,700	105,000	52.6	3.3	1.5	37.2	5.4	100.0
<b>65+</b>	<b>845,800</b>	<b>92,800</b>	<b>32,100</b>	<b>146,000</b>	<b>69,200</b>	<b>1,186,000</b>	<b>71.3</b>	<b>7.8</b>	<b>2.7</b>	<b>12.3</b>	<b>5.8</b>	<b>100.0</b>
<b>Females</b>												
65-74	421,300	75,000	17,700	164,900	26,200	705,000	59.8	10.6	2.5	23.4	3.7	100.0
75-84	199,200	30,800	6,400	278,300	20,900	535,600	37.2	5.7	1.2	52.0	3.9	100.0
85+	29,500	6,300	1,000	170,100	11,000	217,800	13.5	2.9	0.5	78.1	5.0	100.0
<b>65+</b>	<b>649,900</b>	<b>112,000</b>	<b>25,100</b>	<b>613,300</b>	<b>58,100</b>	<b>1,458,400</b>	<b>44.6</b>	<b>7.7</b>	<b>1.7</b>	<b>42.1</b>	<b>4.0</b>	<b>100.0</b>
<b>Persons</b>												
65-74	922,300	140,500	39,300	204,400	66,900	1,373,400	67.2	10.2	2.9	14.9	4.9	100.0
75-84	488,700	54,600	15,400	345,800	43,700	948,100	51.5	5.8	1.6	36.5	4.6	100.0
85+	84,800	9,700	2,600	209,100	16,700	322,800	26.3	3.0	0.8	64.8	5.2	100.0
<b>65+</b>	<b>1,495,800</b>	<b>204,800</b>	<b>57,200</b>	<b>759,400</b>	<b>127,200</b>	<b>2,644,400</b>	<b>56.6</b>	<b>7.7</b>	<b>2.2</b>	<b>28.7</b>	<b>4.8</b>	<b>100.0</b>
<b>2001</b>												
<b>Males</b>												
65-74	467,600	46,400	17,900	45,100	38,500	615,500	76.0	7.5	2.9	7.3	6.3	100.0
75-84	239,700	15,500	6,700	64,100	19,300	345,400	69.4	4.5	1.9	18.6	5.6	100.0
85+	40,600	2,300	1,200	32,600	5,200	81,800	49.6	2.8	1.5	39.8	6.4	100.0
<b>65+</b>	<b>747,900</b>	<b>64,200</b>	<b>25,800</b>	<b>141,800</b>	<b>63,000</b>	<b>1,042,800</b>	<b>71.7</b>	<b>6.2</b>	<b>2.5</b>	<b>13.6</b>	<b>6.0</b>	<b>100.0</b>
<b>Females</b>												
65-74	386,100	53,400	14,700	185,400	25,000	664,600	58.1	8.0	2.2	27.9	3.8	100.0
75-84	167,100	21,300	5,100	267,700	21,400	482,600	34.6	4.4	1.1	55.5	4.4	100.0
85+	21,700	4,100	900	142,700	11,400	180,800	12.0	2.3	0.5	78.9	6.3	100.0
<b>65+</b>	<b>574,900</b>	<b>78,900</b>	<b>20,700</b>	<b>595,900</b>	<b>57,800</b>	<b>1,328,100</b>	<b>43.3</b>	<b>5.9</b>	<b>2</b>	<b>44.9</b>	<b>4.4</b>	<b>100.0</b>
<b>Persons</b>												
65-74	853,700	99,900	32,600	230,500	63,500	1,280,200	66.7	7.8	2.5	18.0	5.0	100.0
75-84	406,800	36,800	11,800	331,800	40,700	828,000	49.1	4.4	1.4	40.1	4.9	100.0
85+	62,300	6,400	2,100	175,300	16,600	262,700	23.7	2.4	0.8	66.7	6.3	100.0
<b>65+</b>	<b>1,322,800</b>	<b>143,100</b>	<b>46,500</b>	<b>737,700</b>	<b>120,800</b>	<b>2,370,900</b>	<b>55.8</b>	<b>6.0</b>	<b>2.0</b>	<b>31.1</b>	<b>5.1</b>	<b>100.0</b>

*continued*

**Table A3.1 (continued): Registered marital status, by age and sex, 2006, 2001, 1996**

	Number						Per cent					
	Married <sup>(a)</sup>	Divorced	Separated	Widowed	Never Married	Total number	Married <sup>(a)</sup>	Divorced	Separated	Widowed	Never married	Total %
<b>1996</b>												
<b>Males</b>												
65-74	454,200	36,000	15,800	49,100	39,300	594,500	76.4	6.1	2.7	8.3	6.6	<b>100.0</b>
75-84	190,600	10,000	5,100	56,900	16,100	278,700	68.4	3.6	1.8	20.4	5.8	<b>100.0</b>
85+	28,100	1,200	800	25,000	3,700	58,900	47.7	2.1	1.4	42.4	6.3	<b>100.0</b>
<b>65+</b>	<b>672,800</b>	<b>47,300</b>	<b>21,800</b>	<b>131,000</b>	<b>59,200</b>	<b>932,200</b>	<b>72.2</b>	<b>5.1</b>	<b>2.3</b>	<b>14.1</b>	<b>6.4</b>	<b>100.0</b>
<b>Females</b>												
65-74	370,500	41,400	13,100	211,000	27,700	663,700	55.8	6.2	2.0	31.8	4.2	<b>100.0</b>
75-84	128,600	13,700	4,100	246,600	21,700	414,700	31.0	3.3	1.0	59.5	5.2	<b>100.0</b>
85+	14,000	2,300	600	112,700	10,800	140,300	9.9	1.6	0.4	80.3	7.7	<b>100.0</b>
<b>65+</b>	<b>513,000</b>	<b>57,400</b>	<b>17,700</b>	<b>570,300</b>	<b>60,200</b>	<b>1,218,700</b>	<b>42.1</b>	<b>4.7</b>	<b>1.5</b>	<b>46.8</b>	<b>4.9</b>	<b>100.0</b>
<b>Persons</b>												
65-74	824,600	77,500	28,900	260,100	67,100	1,258,200	65.5	6.2	2.3	20.7	5.3	<b>100.0</b>
75-84	319,200	23,700	9,200	303,500	37,900	693,400	46.0	3.4	1.3	43.8	5.5	<b>100.0</b>
85+	42,100	3,500	1,400	137,700	14,500	199,300	21.1	1.8	0.7	69.1	7.3	<b>100.0</b>
<b>65+</b>	<b>1,185,900</b>	<b>104,700</b>	<b>39,500</b>	<b>701,400</b>	<b>119,400</b>	<b>2,150,900</b>	<b>55.1</b>	<b>4.9</b>	<b>1.8</b>	<b>32.6</b>	<b>5.6</b>	<b>100.0</b>

(a) Registered marital status is defined by the ABS as formal legal marital status, where the partners in a registered marriage must be of the opposite sex (the social marital status variable on the census includes same-sex relationships).

Source: ABS 2006b.

**Table A3.2: Projected living arrangements of older people, by age group, 2006 and 2026**

Household type	2006				2026			
	65-74	75-84	85+	Total	65-74	75-84	85+	Total
<b>Number</b>								
Family households								
Couple family	987,600	493,000	88,200	1,568,800	1,864,400	929,700	184,200	2,978,300
Other family	78,000	60,600	25,300	163,900	141,300	104,800	48,400	294,500
Group	24,300	12,000	2,900	39,200	43,200	20,000	5,000	68,200
Lone person								
Male	111,400	84,300	29,400	225,100	218,800	157,900	63,400	440,100
Female	199,900	256,600	101,000	557,500	364,800	467,700	217,900	1,050,400
<i>Total lone person households</i>	<i>311,300</i>	<i>340,900</i>	<i>130,400</i>	<i>782,600</i>	<i>583,600</i>	<i>625,600</i>	<i>281,300</i>	<i>1,490,500</i>
Usual resident in non-private dwelling	21,300	58,600	88,300	168,200	33,200	70,300	134,500	238,000
<b>Total</b>	<b>1,426,800</b>	<b>967,500</b>	<b>336,100</b>	<b>2,730,300</b>	<b>2,668,100</b>	<b>1,769,100</b>	<b>677,400</b>	<b>5,114,600</b>
<b>Per cent</b>								
Family households								
Couple family	69.4	51.1	26.3	57.6	69.9	52.6	27.2	58.2
Other family	5.5	6.3	7.5	6.0	5.3	5.9	7.1	5.8
Group	1.7	1.2	0.9	1.4	1.6	1.1	0.7	1.3
Lone person								
Male	7.8	8.7	8.8	8.3	8.2	8.9	9.4	8.6
Female	14.1	26.6	30.1	20.5	13.7	26.4	32.2	20.5
<i>Total lone person households</i>	<i>21.9</i>	<i>35.3</i>	<i>38.9</i>	<i>28.7</i>	<i>21.9</i>	<i>35.4</i>	<i>41.5</i>	<i>29.1</i>
Usual resident in non-private dwelling	1.5	6.1	26.3	6.2	1.3	5.0	23.4	5.5
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: ABS 2004e.

**Table A3.3: Feelings of safety at home alone, by age and sex, 2006**

	Safe or very safe	Neither safe nor unsafe	Unsafe or very unsafe	Never home alone	Total
<b>Males</b>					
<b>During the day</b>					
65-69	367,100	5,400	4,600	7,700	384,800
70-74	280,700	8,300	6,900	.	295,900
75-79	226,300	7,000	9,700	1,100	244,100
80-84	155,200	3,300	4,200	.	162,700
85+	72,000	1,100	1,100	4,400	78,500
<b>65+</b>	<b>1,101,300</b>	<b>25,100</b>	<b>26,400</b>	<b>13,100</b>	<b>1,166,000</b>
<b>After dark</b>					
65-69	359,600	9,600	8,400	7,200	384,790
70-74	269,800	14,100	12,000	.	295,900
75-79	210,600	15,700	13,600	4,300	244,100
80-84	144,600	5,800	10,800	1,500	162,700
85+	68,300	3,600	1,100	5,500	78,500
<b>65+</b>	<b>1,052,900</b>	<b>48,800</b>	<b>45,800</b>	<b>18,400</b>	<b>1,166,000</b>
<b>Females</b>					
<b>During the day</b>					
65-69	365,800	13,600	11,200	1,800	392,400
70-74	299,500	6,300	11,100	700	317,700
75-79	260,700	12,900	8,200	3,300	285,100
80-84	204,900	10,400	3,500	1,300	220,000
85+	123,000	8,000	1,900	6,900	139,800
<b>65+</b>	<b>1,254,000</b>	<b>51,200</b>	<b>35,900</b>	<b>14,000</b>	<b>1,355,100</b>
<b>After dark</b>					
65-69	306,300	39,300	37,500	9,300	392,400
70-74	258,300	21,900	30,100	7,400	317,700
75-79	222,100	14,200	37,300	11,500	285,100
80-84	173,800	15,300	20,400	10,600	220,000
85+	110,900	9,400	10,500	9,100	139,800
<b>65+</b>	<b>1,071,400</b>	<b>100,100</b>	<b>135,700</b>	<b>47,900</b>	<b>1,355,100</b>
<b>Persons</b>					
<b>During the day</b>					
65-69	733,000	19,000	15,800	9,500	777,200
70-74	580,300	14,600	18,000	700	613,600
75-79	487,000	19,900	17,900	4,400	529,200
80-84	360,100	13,700	7,600	1,300	382,700
85+	195,000	9,100	3,000	11,300	218,400
<b>65+</b>	<b>2,355,400</b>	<b>76,300</b>	<b>62,300</b>	<b>27,100</b>	<b>2,521,000</b>
<b>After dark</b>					
65-69	665,900	48,900	45,900	16,500	777,200
70-74	528,100	36,000	42,000	7,400	613,600
75-79	432,600	29,900	50,900	15,700	529,200
80-84	308,300	21,100	31,100	12,100	382,700
85+	179,300	13,000	11,600	14,500	218,400
<b>65+</b>	<b>2,114,300</b>	<b>148,900</b>	<b>181,500</b>	<b>66,300</b>	<b>2,521,000</b>

Source: AIHW analysis, ABS 2007c.

**Table A5.1: Difficulty in accessing services, by age group, 2006 (per cent)**

	65-74	75-84	85+	65+	All (18+)
<b>Has difficulty accessing service providers</b>					
Males	18.1	17.0	36.1	19.0	20.1
Females	18.1	23.1	26.3	20.8	24.7
Persons	18.1	20.3	29.8	19.9	22.4
<b>Transport/distance as reason for difficulty accessing service providers</b>					
Persons	6.7	9.9	16.2		6.8
<b>% with difficulty whose problems accessing services relate to transport difficulty or distance</b>					
Persons	37.0	48.9	54.2	43.6	30.3

Source: AIHW analysis, ABS 2007c, 2007d.

**Table A5.2: Trips<sup>(a)</sup> by mode and frequency of travel, by age and sex, Sydney Greater Metropolitan Region<sup>(b)(c)</sup> 2002 (per cent)**

	65-74			75 and over			65 and over		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
Vehicle driver	65.0	35.3	51.2	55.1	23.5	38.4	61.6	30.5	46.4
Vehicle passenger	6.5	30.5	17.6	11.0	31.7	21.9	8.0	31.0	19.2
Walking	20.5	21.4	21.0	22.6	28.7	25.8	21.2	24.3	22.8
Bus	4.1	7.1	5.5	6.9	10.2	8.7	5.0	8.4	6.7
Train/ferry	2.9	5.0	3.9	3.2	2.5	2.8	3.0	4.0	3.5
Other <sup>(d)</sup>	1.0	0.7	0.9	1.2	3.4	2.4	1.1	1.8	1.5
Average daily trips (no.)	3.43	2.73	3.07	2.47	1.76	2.03	3.03	2.23	2.58

(a) Where a linked trip uses more than one mode of transport, each leg of the trip is counted as a separate trip, except for walking trips. Walking trips are trips where the only mode of transport is walking. A trip covers any time the person left the house, including walking to a friend's house.

(b) Data collected by the Transport, Population and Data Centre, NSW Department of Planning, through the Household Travel Survey. The Greater Metropolitan Region comprises Sydney SD, Illawarra SD and Newcastle SSD.

(c) RSEs are not annotated for this survey.

(d) Includes taxi and bicycle.

Source: ABS 2004g.

**Table A5.3: Per cent of clients receiving transport assistance from government-funded aged care programs, by age**

	Per cent of clients				Average number of trips			
	65-74	75-84	85+	65+	65-74	75-84	85+	65+
HACC, 2004-05 <sup>(a)</sup>	15.6	18.1	17.2	17.3	0.6	0.7	0.7	0.7
HACC, 2004-05 <sup>(b)</sup>	3.7	4.8	5.0	4.5	1.6	1.6	1.6	1.6
CACP, 2002	38.3	36.7	32.9	35.5	3.2	2.9	2.9	3.0
EACH, 2002	13.1	8.8	6.7	9.0	4.1	3	2.1	3.1

(a) All HACC clients who received transport during the year, and the number of trips per week averaged over the whole year. Note that 36% of HACC clients receiving transport services in 2004-05 did so in only 1 quarter, 21% in 2 quarters, 17% in 3 quarters and 26% in all 4 quarters. Average number of trips is calculated by dividing the total number of trips by 52. For HACC we can only divide the annual number of trips by 52.

(b) HACC clients who received transport services in all 4 quarters, so received service over a period of at least 6 months. Per cent of clients is the per cent of all HACC clients in the age group.

Source: AIHW analysis of CACP and EACH censuses and HACC MDS.



**Table A6.1: Labour force status of persons aged 45 and over, by sex, October 1996 and October 2006 (per cent)**

	Males				Females			
	45-54	55-59	60-64	65+	45-54	55-59	60-64	65+
<b>October 1996</b>								
Employed	83.1	67.4	42.2	8.9	64.1	41.1	17.3	2.8
Full time	78.2	59.9	34.5	5.1	37.6	20.2	7.8	1.0
Part time	5.0	7.5	7.6	3.8	26.5	20.9	9.5	1.8
Unemployed	5.2	6.6	3.1	0.1	4.0	1.7	0.2	–
Looking for full time work	5.1	6.1	2.6	0.1	3.0	1.2	0.1	–
Looking for part time work	0.1	0.6	0.5	–	1.0	0.4	0.2	–
<i>Labour force</i>	88.3	74.0	45.3	9.0	68.0	42.8	17.5	2.8
<i>Not in the labour force</i>	11.7	26.0	54.7	91.0	32.0	57.2	82.5	97.2
<b>Total number</b>	<b>1,181,100</b>	<b>424,200</b>	<b>356,000</b>	<b>965,800</b>	<b>1150,300</b>	<b>411,700</b>	<b>358,800</b>	<b>1,250,000</b>
<b>October 2006</b>								
Employed	85.7	75.6	53.6	12.6	74.2	57.8	33.6	4.4
Full time	77.9	65.1	40.4	6.9	43.0	32.1	15.1	1.4
Part time	7.7	10.6	13.2	5.7	31.2	25.8	18.4	3.0
Unemployed	2.7	1.9	2.1	0.1	2.3	1.7	0.7	–
Looking for full time work	2.4	1.6	1.8	–	1.7	1.0	0.5	–
Looking for part time work	0.3	0.3	0.3	0.1	0.6	0.6	0.2	–
<i>Labour force</i>	88.4	77.5	55.8	12.8	76.5	59.5	34.3	4.4
<i>Not in the labour force</i>	11.6	22.5	44.2	87.2	23.5	40.5	65.7	95.6
<b>Total number</b>	<b>1,412,600</b>	<b>638,600</b>	<b>510,500</b>	<b>1,246,200</b>	<b>1,434,300</b>	<b>641,500</b>	<b>503,100</b>	<b>1,511,300</b>

Source: Reproduced from ABS 2006n:Table1.

**Table A8.1: Provision of unpaid assistance to persons living outside the household in last 4 weeks, by age and sex of provider, 2006**

	Males		Females		Persons	
	Number	Per cent	Number	Per cent	Number	Per cent
55-64	527,100	47.0	724,000	64.4	1,251,100	55.7
65-74	291,200	42.8	375,300	52.9	666,500	47.9
75-84	123,000	30.2	140,200	27.8	263,200	28.9
85+	*16,400	20.8	*19,700	14.1	36,000	16.5
<b>Total 65+</b>	<b>430,600</b>	<b>36.9</b>	<b>535,200</b>	<b>39.5</b>	<b>965,800</b>	<b>38.3</b>

\* Estimate has a relative standard error of 25% to 50% and should be used with caution.

Source: AIHW analysis, ABS 2007c.

**Table A8.2: Type of unpaid assistance provided to persons living outside the household in last 4 weeks, by age and sex of provider, 2006 (per cent)**

	Males					Females				
	55-64	65-74	75-84	85+	Total 65+	55-64	65-74	75-84	85+	Total 65+
<b>Type of unpaid assistance provided</b>										
Domestic work, home maintenance	16.7	15.0	8.1	*5.1	11.9	16.9	11.9	6.4	*2.0	8.8
Providing transport or running errands	16.9	15.4	11.6	*8.9	13.6	22.3	18.9	11.1	*5.1	14.6
Helping with child care	12.5	16.0	9.1	**2.7	12.7	27.6	26.7	6.3	**0.5	16.4
Teaching, coaching or giving practical advice	4.9	*2.8	*3.4	**1.3	2.9	7.7	5.0	*1.1	0.0	3.0
Giving emotional support	19.1	14.8	10.3	*9.1	12.8	35.0	22.8	14.4	*6.9	18.0
Other helping activity	6.2	*2.5	*2.6	**2.7	2.6	5.3	*2.4	*1.8	**0.4	2.0
<b>Recipient of unpaid assistance</b>										
Relative in another household	34.5	31.0	18.9	*7.7	25.2	49.6	38.9	16.0	*6.1	27.0
Friend	9.8	11.2	*9.2	*9.6	10.4	15.8	13.8	10.2	*7.7	11.8
Neighbour	*4.3	5.2	*5.2	**3.4	5.1	6.4	6.2	5.4	**1.5	5.4
Work colleague	*2.2	0.0	**0.3	0.0	**0.1	*3.3	**0.2	**0.4	0.0	**0.2
Other person	1.8	*2.2	*2.0	**2.3	*2.1	*3.0	*2.1	*1.7	0.0	1.7
<i>Total providing assistance</i>	<i>47.0</i>	<i>42.8</i>	<i>30.2</i>	<i>20.8</i>	<i>36.9</i>	<i>64.4</i>	<i>52.9</i>	<i>27.8</i>	<i>14.1</i>	<i>39.5</i>
<i>No assistance provided</i>	<i>53.0</i>	<i>57.2</i>	<i>69.8</i>	<i>79.2</i>	<i>63.1</i>	<i>35.6</i>	<i>47.1</i>	<i>72.2</i>	<i>85.9</i>	<i>60.5</i>
<b>Total persons ('000)</b>	<b>1,121.6</b>	<b>680.7</b>	<b>406.7</b>	<b>78.5</b>	<b>1,166.0</b>	<b>1,125.1</b>	<b>710.1</b>	<b>505.1</b>	<b>139.8</b>	<b>1,355.1</b>

\* Estimate has a relative standard error of 25% to 50% and should be used with caution.

\*\* Estimate has a relative standard error of greater than 50% and is considered too unreliable for general use.

Source: AIHW analysis, ABS 2007c.

**Table A9.1: Carers and primary carers, by age and sex, 2003**

Age	Females		Males		Persons	
	Number	Per cent	Number	Per cent	Number	Per cent
<b>Carers</b>						
< 25	164,500	12.0	175,100	15.0	339,500	13.4
25-34	175,600	12.8	139,100	11.9	314,800	12.4
35-44	288,100	21.0	194,700	16.7	482,800	19.0
45-54	298,300	21.7	217,900	18.7	516,200	20.3
55-64	237,000	17.3	195,600	16.8	432,700	17.0
65-74	129,400	9.4	138,900	11.9	268,400	10.6
75-84	71,800	5.2	90,200	7.7	162,000	6.4
85+	*7,100	*0.5	14,800	1.3	21,900	0.9
<b>Total</b>	<b>1,371,800</b>	<b>100.0</b>	<b>1,166,300</b>	<b>100.0</b>	<b>2,538,200</b>	<b>100.0</b>
<b>Primary carers</b>						
< 25 <sup>(a)</sup>	13,500	4.0	*4,500	*3.4	18,100	3.8
25-34	35,100	10.4	*9,000	*6.6	44,100	9.3
35-44	65,600	19.5	17,000	12.5	82,600	17.5
45-54	82,700	24.5	32,200	23.8	114,900	24.3
55-64	74,800	22.2	25,000	18.4	99,700	21.1
65-74	38,600	11.5	22,900	16.9	61,500	13.0
75-84	25,600	7.6	23,600	17.4	49,100	10.4
85+	**1,200	**0.4	**1,300	**0.9	*2,500	*0.5
<b>Total</b>	<b>337,100</b>	<b>100.0</b>	<b>135,400</b>	<b>100.0</b>	<b>472,500</b>	<b>100.0</b>

\* Estimate has a relative standard error of 25-50% and should be used with caution.

\*\* Estimate has a relative standard error of greater than 50% and is considered too unreliable for general use.

(a) Primary carers include only persons aged 15 and over.

Source: AIHW analysis of 2003 ABS Survey of Disability, Ageing and Carers CURF (ABS 2004a).

**Table A10.1: Social activity in the last 3 months by people aged 55 and over, by sex, 2006 (per cent)**

Social activity in last 3 months	55-64	65-74	75-84	85+	Total 65+
<b>Males</b>					
Visited or was visited by friends	91.5	87.4	85.4	81.3	81.3
Went out with or met group of friends— outdoor activities	73.2	62.9	56.7	42.6	42.6
Went out with or met group of friends— indoor activities	63.4	63.6	55.6	50.6	50.6
Spent time in Internet social activity	16.4	10.6	4.4	**2.8	2.8
Other informal social activities	39.6	32.0	21.0	*12.5	12.5
No informal social activities	3.5	*6.4	8.8	*15.3	15.3
Any informal social activity	96.5	93.6	91.2	84.7	92.2
<i>Number</i>	1,121,600	680,700	406,700	78,500	1,166,000
<b>Females</b>					
Visited or was visited by friends	92.1	89.5	85.7	80.3	80.3
Went out with or met group of friends— outdoor activities	71.1	63.8	51.6	39.6	39.6
Went out with or met group of friends— indoor activities	68.9	66.8	58.1	47.2	47.2
Spent time in Internet social activity	11.8	7.3	5.0	**0.1	0.1
Other informal social activities	41.1	30.8	29.0	18.7	18.7
No informal social activities	6.0	5.5	8.1	*8.5	8.5
Any informal social activity	94.0	94.5	91.9	91.5	93.2
<i>Number</i>	1,125,100	710,100	505,100	139,800	1,355,100
<b>Persons</b>					
Visited or was visited by friends	91.8	88.5	85.6	80.7	86.8
Went out with or met group of friends— outdoor activities	72.1	63.3	53.9	40.7	58.0
Went out with or met group of friends— indoor activities	66.2	65.2	57.0	48.4	60.8
Spent time in Internet social activity	14.1	8.9	4.7	**1.1	6.7
Other informal social activities	40.3	31.4	25.4	16.5	27.9
No informal social activities	4.8	5.9	8.4	11.0	7.3
Any informal social activity	95.2	94.1	91.6	89.0	92.7
<b>Number</b>	<b>2,246,700</b>	<b>1,390,800</b>	<b>911,800</b>	<b>218,400</b>	<b>2,521,000</b>

\* Estimate has a relative standard error of 25-50% and should be used with caution.

\*\* Estimate has a relative standard error of greater than 50% and is considered too unreliable for general use.

Source: AIHW analysis, ABS 2007c.

**Table A10.2: Active involvement in social or support groups in the last 12 months, by age and sex, 2006 (per cent)**

	Males				Females				Persons			
	55-64	65-74	75-84	85+	55-64	65-74	75-84	85+	55-64	65-74	75-84	85+
Sport or physical recreation group	30.0	27.2	20.6	*12.7	22.9	22.8	14.9	*4.6	26.5	24.9	17.4	*7.5
Arts or heritage group	8.8	8.1	5.7	0.0	14.0	11.7	10.3	**0.1	11.4	9.9	8.2	**0.1
Religious or spiritual group or organisation	14.7	21.2	25.0	*29.0	25.7	27.0	24.0	*20.5	20.2	24.2	24.5	*23.6
Craft or practical hobby group	5.6	8.3	*3.2	**5.0	19.7	17.2	12.9	*5.0	12.7	12.9	8.6	*5.0
Adult education, other recreation or special interest group	11.7	9.4	*7.6	**11.4	20.0	15.5	17.9	*6.4	15.9	12.5	13.3	*8.2
Ethnic/multicultural club	*4.7	5.1	*4.5	**1.3	5.2	6.0	*3.7	0.0	4.9	5.6	*4.1	**0.5
Other social groups	**0.4	**0.5	0.0	0.0	**0.3	0.0	**0.3	0.0	**0.3	**0.2	**0.2	0.0
No active involvement	40.4	37.3	42.9	49.6	31.9	31.2	43.6	61.3	36.1	34.2	43.3	57.1
<b>Total ('000)</b>	<b>1,121.6</b>	<b>680.7</b>	<b>406.7</b>	<b>78.5</b>	<b>1,125.1</b>	<b>710.1</b>	<b>505.1</b>	<b>139.8</b>	<b>2,246.7</b>	<b>1,390.8</b>	<b>911.8</b>	<b>218.4</b>

\* Estimate has a relative standard error of 25-50% and should be used with caution.

\*\* Estimate has a relative standard error of greater than 50% and is considered too unreliable for general use.

Source: AIHW analysis, ABS 2007c.

**Table A10.3: Type of participation in sport and physical recreation, by age and sex, 2005-06**

	Organised only	Non-organised only	Both organised and non-organised	Total organised	Total non-organised	Total participation
	A	B	C	A+C	B+C	A+B+C
<b>Number</b>						
<b>Males</b>						
55-64	92,900	430,800	145,800	238,700	576,600	670,100
65+	121,100	367,900	101,600	222,700	469,500	591,000
<b>Females</b>						
55-64	92,300	493,400	130,700	223,000	624,100	716,300
65+	134,500	422,700	93,900	228,400	516,600	652,900
<b>Persons</b>						
55-64	185,200	924,200	276,600	461,700	1,200,700	1,386,500
65+	255,600	790,600	195,500	451,100	986,100	1,243,900
<b>Per cent</b>						
<b>Males</b>						
55-64	8.4	38.8	13.1	21.5	52.0	60.4
65+	10.4	31.7	8.7	19.2	40.4	50.8
<b>Females</b>						
55-64	8.3	44.5	11.8	20.1	56.3	64.6
65+	9.9	31.2	6.9	16.9	38.2	48.2
<b>Persons</b>						
55-64	8.4	41.7	12.5	20.8	54.2	62.5
65+	10.2	31.4	7.8	17.9	39.2	49.4

Source: Reproduced from ABS 2007k:Table 3.

**Table A12.1: Households with mature-age reference person, mean weekly household income, household net worth and weekly household expenditure, by broad expenditure group, 2003–04**

	Couple only, reference person 55–64	Couple only, reference person 65 and over	Lone person 65 and over	Couple only, reference person 55–64	Couple only, reference person 65 and over	Lone person 65 and over
	Dollars			Per cent		
<b>Average weekly expenditure on goods and services</b>						
Current housing costs <sup>(a)</sup>	81.48	60.53	73.75	9.3	9.8	21.0
Domestic fuel and power	25.56	20.32	14.58	2.9	3.3	4.2
Household furnishings and equipment	58.64	38.58	18.44	6.7	6.3	5.3
Household services and operation	49.62	39.74	28.25	5.6	6.5	8.1
Food and non-alcoholic beverages	153.64	127.77	63.98	17.4	20.8	18.2
Clothing and footwear	35.83	19.74	9.60	4.1	3.2	2.7
Medical care and health expenses <sup>(b)</sup>	71.75	47.54	*31.01	8.1	7.7	*8.8
Personal care	18.93	13.31	7.01	2.1	2.2	2.0
Transport	158.41	92.54	37.00	18.0	15.1	10.5
Recreation	117.32	96.12	36.38	13.3	15.6	10.4
Tobacco products	11.60	3.75	2.00	1.3	0.6	0.6
Alcoholic beverages	28.40	14.63	6.57	3.2	2.4	1.9
Miscellaneous goods and services	69.35	40.08	22.21	7.9	6.5	6.3
<b>Total goods and services expenditure</b>	<b>880.53</b>	<b>614.65</b>	<b>350.78</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Selected other payments</b>						
Income tax	161.76	38.04	*24.67	n.a.	n.a.	n.a.
Mortgage repayments—principal	12.90	*0.74	**2.18	n.a.	n.a.	n.a.
Superannuation and life insurance	49.49	**10.88	**1.92	n.a.	n.a.	n.a.
<b>Household income and net worth</b>						
Mean gross household income per week	973	620	380	n.a.	n.a.	n.a.
Mean household net worth	993,367	687,214	462,160	n.a.	n.a.	n.a.

\* Estimate has a relative standard error of 25–50% and should be used with caution.

\*\* Estimate has a relative standard error of greater than 50% and is considered too unreliable for general use.

(a) Current housing costs include: mortgage, rent and rates payments and interest payments on home improvement loans; home and contents insurance premiums; repairs and maintenance costs for selected dwelling.

(b) Includes: accident and health insurance; health practitioner fees; medicines, pharmaceuticals and therapeutic appliances; hospital and nursing home charges; other health and medical expenses. All expenditure is net of refunds.

Source: ABS 2006j: Tables 17 & 18.



**Table A13.1: Age Pension, full pensioners as at 30 June 2006**

	Under 65	65-69	70-74	75-79	80-84	85+	Total
<b>Number</b>							
<b>Males</b>							
Single rate	..	43,192	40,584	37,971	19,349	18,098	159,194
Partnered rate	..	92,811	95,939	81,003	31,799	14,156	315,708
<i>Total</i>	..	136,003	136,523	118,974	51,148	32,254	474,902
<b>Females</b>							
Single rate	24,415	75,167	80,679	84,650	73,944	93,206	432,061
Partnered rate	32,701	91,781	75,693	48,230	19,100	6,592	274,097
<i>Total</i>	57,116	166,948	156,372	132,880	93,044	99,798	706,158
<b>Persons</b>							
Single rate	24,415	118,359	121,263	122,621	93,293	111,304	591,255
Partnered rate	32,701	184,592	171,632	129,233	50,899	20,748	589,805
<b>Total</b>	<b>57,116</b>	<b>302,951</b>	<b>292,895</b>	<b>251,854</b>	<b>144,192</b>	<b>132,052</b>	<b>1,181,060</b>
<b>Per cent</b>							
<b>Males</b>							
Single rate	..	9.1	8.5	8.0	4.1	3.8	33.5
Partnered rate	..	19.5	20.2	17.1	6.7	3.0	66.5
<i>Total</i>	..	28.6	28.7	25.1	10.8	6.8	100.0
<b>Females</b>							
Single rate	3.5	10.6	11.4	12.0	10.5	13.2	61.2
Partnered rate	4.6	13.0	10.7	6.8	2.7	0.9	38.8
<i>Total</i>	8.1	23.6	22.1	18.8	13.2	14.1	100.0
<b>Persons</b>							
Single rate	2.1	10.0	10.3	10.4	7.9	9.4	50.1
Partnered rate	2.8	15.6	14.5	10.9	4.3	1.8	49.9
<b>Total</b>	<b>4.8</b>	<b>25.7</b>	<b>24.8</b>	<b>21.3</b>	<b>12.2</b>	<b>11.2</b>	<b>100.0</b>

Note: Table excludes manually assessed recipients and suspended recipients paid by Centrelink. DVA pensioners not included.

Source: Centrelink unpublished data.

**Table A13.2: Age Pension, part pensioners as at 30 June 2006**

	Under 65	65-69	70-74	75-79	80-84	85+	Total
<b>Number</b>							
<b>Males</b>							
Single rate	..	19,111	19,461	20,308	12,097	10,724	81,701
Partnered rate	..	80,756	71,093	56,164	21,984	7,945	237,942
<i>Total</i>	..	99,867	90,554	76,472	34,081	18,669	319,643
<b>Females</b>							
Single rate	10,877	34,903	36,659	39,593	34,506	40,380	196,918
Partnered rate	29,063	76,992	55,300	34,472	13,267	4,179	213,273
<i>Total</i>	39,940	111,895	91,959	74,065	47,773	44,559	410,191
<b>Persons</b>							
Single rate	10,877	54,014	56,120	59,901	46,603	51,104	278,619
Partnered rate	29,063	157,748	126,393	90,636	35,251	12,124	451,215
<b>Total</b>	<b>39,940</b>	<b>211,762</b>	<b>182,513</b>	<b>150,537</b>	<b>81,854</b>	<b>63,228</b>	<b>729,834</b>
<b>Per cent</b>							
<b>Males</b>							
Single rate	..	6.0	6.1	6.4	3.8	3.4	25.6
Partnered rate	..	25.3	22.2	17.6	6.9	2.5	74.4
<i>Total</i>	..	31.2	28.3	23.9	10.7	5.8	100.0
<b>Females</b>							
Single rate	2.7	8.5	8.9	9.7	8.4	9.8	48.0
Partnered rate	7.1	18.8	13.5	8.4	3.2	1.0	52.0
<i>Total</i>	9.7	27.3	22.4	18.1	11.6	10.9	100.0
<b>Persons</b>							
Single rate	1.5	7.4	7.7	8.2	6.4	7.0	38.2
Partnered rate	4.0	21.6	17.3	12.4	4.8	1.7	61.8
<b>Total</b>	<b>5.5</b>	<b>29.0</b>	<b>25.0</b>	<b>20.6</b>	<b>11.2</b>	<b>8.7</b>	<b>100.0</b>

Note: Table excludes manually assessed recipients and suspended recipients paid by Centrelink. DVA pensioners not included.

Source: Centrelink unpublished data.

**Table A16.1: Leading causes of death in 65–74 year olds, by sex, Australia, 2004**

Rank	Males			Females		
	Deaths	Per cent of total	Deaths	Deaths	Per cent of total	Per cent of total
1	Ischaemic heart diseases	2,622	19.2	Ischaemic heart diseases	1,010	12.3
2	Lung cancer	1,537	11.3	Lung cancer	651	7.9
3	Cerebrovascular diseases	706	5.2	Breast cancer	541	6.6
4	Chronic obstructive pulmonary disease	665	4.9	Cerebrovascular diseases	521	6.4
5	Colorectal cancer	652	4.8	Chronic obstructive pulmonary disease	501	6.1
6	Prostate cancer	588	4.3	Colorectal cancer	423	5.2
7	Diabetes	498	3.7	Other heart diseases	353	4.3
8	Other heart diseases	490	3.6	Cancers (unknown primary site)	326	4.0
9	Cancers (unknown primary site)	453	3.3	Diabetes	267	3.3
10	Pancreatic cancer	296	2.2	Pancreatic cancer	226	2.8
11	Diseases of arteries etc.	245	1.8	Ovarian cancer	211	2.6
12	Cirrhosis of the liver	228	1.7	Lymphomas	166	2.0

Note: See Table A16.4 for definitions of causes of death classification.

Source: AIHW National Mortality Database.

**Table A16.2: Leading causes of death in 75–84 year olds, by sex, Australia, 2004**

Rank	Males			Females		
	Deaths	Per cent of total	Deaths	Deaths	Per cent of total	Per cent of total
1	Ischaemic heart diseases	4,629	20.2	Ischaemic heart diseases	3,639	18.2
2	Cerebrovascular diseases	2,004	8.7	Cerebrovascular diseases	2,333	11.7
3	Lung cancer	1,604	7.0	Other heart diseases	1,239	6.2
4	Chronic obstructive pulmonary disease	1,408	6.1	Dementia & related disorders	927	4.7
5	Prostate cancer	1,240	5.4	Lung cancer	901	4.5
6	Other heart diseases	1,136	5.0	Chronic obstructive pulmonary disease	883	4.4
7	Colorectal cancer	719	3.1	Diabetes	679	3.4
8	Diabetes	684	3.0	Cancers (unknown primary site)	628	3.1
9	Cancers (unknown primary site)	603	2.6	Colorectal cancer	617	3.1
10	Dementia & related disorders	580	2.5	Breast cancer	575	2.9
11	Influenza & pneumonia	547	2.4	Influenza & pneumonia	465	2.3
12	Diseases of arteries etc.	538	2.3	Diseases of arteries etc.	426	2.1

Note: See Table A16.4 for definitions of causes of death classification.

Source: AIHW National Mortality Database.

**Table A16.3: Leading causes of death in those aged 85 and over, by sex, Australia, 2004**

Rank	Males			Females		
	Deaths	Per cent of total	Deaths	Per cent of total	Deaths	Per cent of total
1	Ischaemic heart diseases	3,447	23.6	Ischaemic heart diseases	6,223	23.9
2	Cerebrovascular diseases	1,670	11.4	Cerebrovascular diseases	4,032	15.5
3	Other heart diseases	1,062	7.3	Other heart diseases	2,358	9.1
4	Prostate cancer	706	4.8	Dementia & related disorders	2,121	8.1
5	Dementia & related disorders	701	4.8	Influenza & pneumonia	1,224	4.7
6	Chronic obstructive pulmonary disease	663	4.5	Diseases of arteries etc.	611	2.3
7	Influenza & pneumonia	662	4.5	Chronic obstructive pulmonary disease	607	2.3
8	Lung cancer	398	2.7	Diabetes	595	2.3
9	Diabetes	373	2.5	Kidney failure	505	1.9
10	Kidney failure	358	2.4	Cancers (unknown primary site)	460	1.8
11	Diseases of arteries etc.	351	2.4	Colorectal cancer	449	1.7
12	Cancers (unknown primary site)	270	1.8	Breast cancer	361	1.4

Note: See Table A16.4 for definitions of causes of death classification.

Source: AIHW National Mortality Database.

**Table A16.4: Causes of death classification**

Disease description	ICD-10 classification	ICD-10 codes
Breast cancer	Malignant neoplasms of female breast	C50
Cancers (unknown primary site)	Unknown primary site cancers	C76-C80, C26, C39
Cerebrovascular diseases <sup>(a)</sup>	Cerebrovascular diseases	I60-I69
Chronic obstructive pulmonary disease	Chronic obstructive pulmonary disease	J41-J44
Cirrhosis of the liver	Cirrhosis and other diseases of the liver	K70-K76
Colorectal cancer	Malignant neoplasms of colon, sigmoid, rectum and anus	C18-C21
Dementia & related disorders <sup>(b)</sup>	Dementia and other degenerative diseases of the nervous system	F01-F03, G30-G32
Diabetes	Diabetes mellitus	E10-E14
Diseases of arteries etc. <sup>(c)</sup>	Diseases of arteries, arterioles & capillaries	I70-I79
Influenza & pneumonia	Influenza & pneumonia	J10-J18
Ischaemic heart diseases	Ischaemic heart diseases	I20-I25
Kidney failure	Renal failure	N17-N19
Lung cancer	Malignant neoplasm of trachea, bronchus and lung	C33, C34
Lymphomas	Malignant neoplasm of lymphoid	C81-C85, C96
Other heart diseases <sup>(d)</sup>	Other heart diseases	I05-I09, I11, I13, I26, I27, I30-I52
Ovarian cancer	Malignant neoplasm of ovary	C56
Pancreatic cancer	Malignant neoplasm of pancreas	C25
Prostate cancer	Malignant neoplasm of prostate	C61

(a) Includes stroke.

(b) Includes Alzheimer's disease.

(c) Includes aortic aneurysm and dissection, atherosclerosis and other peripheral vascular diseases.

(d) Includes heart failure, atrial fibrillation and flutter, non-rheumatic aortic valve disorders and hypertensive disease.

**Table A17.1: Disability status of older people, by age and sex, 2003**

	Core activity limitation				<sup>(a)</sup> Without core activity limitation	Total with disability	Total population
	Mild	Moderate	Severe or profound	Total			
<b>Number</b>							
<b>Females</b>							
60-64	48,500	42,100	41,700	132,400	24,700	157,100	423,100
65-74	88,900	76,200	93,400	258,500	41,400	299,800	681,500
75-84	94,200	53,700	151,700	299,600	18,100	317,700	510,900
85+	19,500	15,200	126,000	160,800	**1,600	162,400	193,800
<b>Total 65+</b>	<b>202,600</b>	<b>145,100</b>	<b>371,100</b>	<b>718,800</b>	<b>61,100</b>	<b>779,900</b>	<b>1,386,200</b>
<b>Males</b>							
60-64	59,000	39,400	32,500	130,900	43,200	174,100	428,400
65-74	110,300	62,200	66,500	238,900	53,500	292,400	641,000
75-84	96,400	46,300	83,700	226,400	20,600	247,000	379,800
85+	21,100	*8,700	39,600	69,400	**1,600	71,100	89,900
<b>Total 65+</b>	<b>227,800</b>	<b>117,200</b>	<b>189,800</b>	<b>534,700</b>	<b>75,800</b>	<b>610,500</b>	<b>1,110,600</b>
<b>Persons</b>							
60-64	107,500	81,500	74,300	263,300	68,000	331,200	851,500
65-74	199,100	138,400	159,900	497,400	94,900	592,300	1,322,500
75-84	190,600	100,000	235,400	525,900	38,800	564,700	890,700
85+	40,700	23,800	165,700	230,200	*3,200	233,400	283,600
<b>Total 65+</b>	<b>430,400</b>	<b>262,200</b>	<b>560,900</b>	<b>1,253,500</b>	<b>136,900</b>	<b>1,390,400</b>	<b>2,496,800</b>
<b>Per cent</b>							
<b>Females</b>							
60-64	11.5	10.0	9.9	31.3	5.8	37.1	100.0
65-74	13.0	11.2	13.7	37.9	6.1	44.0	100.0
75-84	18.4	10.5	29.7	58.6	3.5	62.2	100.0
85+	10.1	7.8	65.0	83.0	**0.8	83.8	100.0
<b>Total 65+</b>	<b>14.6</b>	<b>10.5</b>	<b>26.8</b>	<b>51.9</b>	<b>4.4</b>	<b>56.3</b>	<b>100.0</b>
<b>Males</b>							
60-64	13.8	9.2	7.6	30.6	10.1	40.6	100.0
65-74	17.2	9.7	10.4	37.3	8.3	45.6	100.0
75-84	25.4	12.2	22.0	59.6	5.4	65.0	100.0
85+	23.5	*9.6	44.1	77.3	**1.8	79.1	100.0
<b>Total 65+</b>	<b>20.5</b>	<b>10.5</b>	<b>17.1</b>	<b>48.1</b>	<b>6.8</b>	<b>55.0</b>	<b>100.0</b>
<b>Persons</b>							
60-64	12.6	9.6	8.7	30.9	8.0	38.9	100.0
65-74	15.1	10.5	12.1	37.6	7.2	44.8	100.0
75-84	21.4	11.2	26.4	59.0	4.4	63.4	100.0
85+	14.3	8.4	58.4	81.2	*1.1	82.3	100.0
<b>Total 65+</b>	<b>17.2</b>	<b>10.5</b>	<b>22.5</b>	<b>50.2</b>	<b>5.5</b>	<b>55.7</b>	<b>100.0</b>

\* Estimate has a relative standard error of 25-50% and should be used with caution.

\*\* Estimate has a relative standard error of greater than 50% and is considered too unreliable for general use.

(a) The core activity limitations are self care, mobility and communication.

Source: AIHW analysis, ABS 2004a, 2005a.

Table A17.2: Severity of disability among older people with selected health conditions, 2003

Health condition	With health condition				With health condition & profound or severe core activity limitation			
	Number	% of people aged 65+	Number for whom health condition is the main condition	% for whom health condition is the main condition	Number	% of those with the health condition	Number	% of people with a profound/severe limitation
Hypertension	927,500	37.1	242,100	26.1	210,300	22.7	210,300	37.5
Arthritis	893,400	35.8	428,100	47.9	280,500	31.4	280,500	50.0
Hearing disorders—all	732,900	29.4	..	..	242,600	33.1	242,600	43.3
Heart diseases	448,800	18.0	143,900	32.1	167,000	37.2	167,000	29.8
Back problems	408,900	16.4	183,700	44.9	112,000	27.4	112,000	20.0
Diabetes	304,000	12.2	110,700	36.4	100,300	33.0	100,300	17.9
High cholesterol	291,400	11.7	28,100	9.7	47,500	16.3	47,500	8.5
Stroke	252,800	10.1	61,800	24.5	126,200	49.9	126,200	22.5
Osteoporosis	221,900	8.9	67,400	30.4	85,100	38.3	85,100	15.2
Vision disorders—all	205,700	8.2	..	..	116,200	56.5	116,200	20.7
Asthma	176,500	7.1	61,300	34.8	56,700	32.2	56,700	10.1
Head injury/acquired brain damage	133,600	5.4	*6,400	*4.8	45,400	34.0	45,400	8.1
Nervous tension/stress	106,300	4.3	23,900	22.5	39,700	37.3	39,700	7.1
Dementia & Alzheimer's disease	99,300	4.0	67,300	67.8	97,300	98.0	97,300	17.4
Cancer	99,300	4.0	41,400	41.6	37,600	37.9	37,600	6.7
Depression	98,000	3.9	21,400	21.8	58,400	59.5	58,400	10.4
Leg/knee/foot/hip damage from injury/accident	97,300	3.9	44,600	45.8	49,200	50.5	49,200	8.8
Problems with speech	78,000	3.1	..	..	67,800	86.9	67,800	12.1
Phobic & anxiety disorders	45,500	1.8	10,700	23.5	27,400	60.3	27,400	4.9
Parkinson's disease	26,500	1.1	17,600	66.5	20,800	78.6	20,800	3.7
<b>Any condition</b>	<b>2,164,800</b>	<b>86.7</b>	<b>..</b>	<b>..</b>	<b>560,900</b>	<b>25.9</b>	<b>560,900</b>	<b>100.0</b>
<b>Total 65+</b>	<b>2,496,800</b>	<b>100.0</b>	<b>..</b>	<b>..</b>	<b>23% (65+)</b>	<b>..</b>	<b>23% (65+)</b>	<b>..</b>

\* Estimate has a relative standard error of 25–50% and should be used with caution.  
 Note: People may have more than one health condition so percentages do not add to 100.  
 Source: ABS 2004a.



**Table A19.1: Prevalence of selected cardiovascular diseases, by age, 2004–05**

Age group	Angina	Other coronary heart disease	Cerebrovascular disease	Oedema & heart failure
<b>Number</b>				
35–44	4,600	8,900	4,200	18,900
45–54	10,200	14,500	5,400	41,400
55–64	46,500	36,300	19,400	52,400
65–74	67,900	40,200	22,000	52,000
75+	85,100	49,300	37,600	89,000
<b>Total 65+</b>	<b>153,000</b>	<b>89,500</b>	<b>59,600</b>	<b>141,000</b>
<b>Per 100,000 population</b>				
35–44	155	301	142	639
45–54	373	530	197	1513
55–64	2,196	1,714	916	2,574
65–74	5,008	2,965	1,623	3,835
75+	7,830	4,536	3,460	8,189
<b>Total 65+</b>	<b>6,260</b>	<b>3,660</b>	<b>2,440</b>	<b>5,770</b>

Note: Estimates are based on self-reported information. The survey excluded people in hospitals, residential aged care and other non-private dwellings.

Source: ABS 2006r.

**Table A19.2: Hospital separations for selected cardiovascular diseases, by age, 2004–05**

Age group	Coronary heart disease	Cerebrovascular disease	Heart failure	Peripheral vascular disease
<b>Number</b>				
<25	71	430	151	109
25–34	819	588	252	221
35–44	6,218	1,379	508	446
45–54	20,506	2,918	1,160	1,287
55–64	37,592	5,338	3,330	3,633
65–74	43,703	8,915	7,882	6,938
75+	53,368	21,150	28,038	13,048
<b>Total 65+</b>	<b>97,071</b>	<b>30,065</b>	<b>35,920</b>	<b>19,986</b>
<b>Per 100,000 population</b>				
<25	1	7	2	2
25–34	29	21	9	8
35–44	210	47	17	15
45–54	750	107	42	47
55–64	1,775	252	157	172
65–74	3,223	657	581	512
75+	4,911	1,946	2,580	1,201

Source: AIHW National Hospital Morbidity Database.

**Table A19.3: Deaths for selected cardiovascular diseases, by age, 2004**

Age group	Coronary heart disease	Cerebrovascular disease	Heart failure	Peripheral vascular disease
	<b>Number</b>			
< 25	13	22	3	1
25-34	57	26	2	6
35-44	296	88	5	15
45-54	853	236	11	40
55-64	1,786	403	47	110
65-74	3,632	1,227	152	348
75+	17,938	10,039	2,058	1,885
Total 65+	21,570	11,266	2,210	2,233
	<b>Per 100,000 population</b>			
<25	0.2	0.3	0.0	0.0
25-34	2.0	0.9	0.1	0.2
35-44	9.9	2.9	0.2	0.5
45-54	30.9	8.6	0.4	1.5
55-64	84.7	19.1	2.2	5.2
65-74	264.2	89.2	11.1	25.3
75+	1,458.2	816.1	167.3	153.2

Source: AIHW National Mortality Database.

**Table A20.1: Incidence rates for all cancers and selected cancers, by age and sex, 2003**

Age group	65-69	70-74	75-79	80-84	85+
	<b>Per 100,000 population</b>				
<b>Males</b>					
Colorectal cancer	307.8	383.3	474.1	476.8	473.5
Lung cancer	212.3	331.1	413.9	470.6	401.2
Prostate cancer	701.4	787.5	885.5	968.7	999.2
All cancers	2,044.9	2,607.7	3,219.3	3,579.7	3,679.9
<b>Females</b>					
Colorectal cancer	187.8	247.2	291.2	370.1	362.9
Lung cancer	100.3	135.6	199.0	151.4	131.8
Breast cancer	327.8	283.0	299.9	313.2	274.8
All cancers	1,188.3	1,334.1	1,648.2	1,857.2	1,923.3

Source: National Cancer Statistics Clearing House, AIHW.

**Table A21.1: Prevalence of diabetes, 2004-05 (per cent)**

Type of diabetes	<25	25-44	45-64	65+
Type 1 diabetes	0.2	0.3	0.7	1.3
Type 2 diabetes	0.1	0.9	4.9	11.8

Source: ABS 2006r.

**Table A21.2: Trends in the prevalence of diabetes, all types, 1989–90 to 2004–05 (per cent)**

Age group	1989–90	1995	2001	2004–05
65 and over	5.5	8.5	10.8	13.7
All ages	1.5	2.4	2.9	3.5

Notes:

1. Age-standardised to the 2001 Australian population.

2. Based on self-reported data.

Source: ABS 2006r.

**Table A21.3: Hospitalisation rates for people with diabetic complications, by age, 2004–05**

Complication	< 25	25–34	35–44	45–54	55–64	65–74	75+
Neurological	0.4	4.7	3.7	7.9	20.9	37.0	54.8
Ophthalmic	0.6	4.1	8.1	34.2	143.1	578.5	855.5
Renal	0.3	3.1	9.9	21.0	43.6	96.7	131.5

Note: Age-standardised to the 2001 Australian population.

Source: AIHW analysis of the 2004–05 National Hospital Morbidity Database.

**Table A22.1: Prevalence of emphysema/bronchitis and asthma per 1,000 population, by age and sex, 2004–05**

	Emphysema/bronchitis		Asthma	
	Males	Females	Males	Females
0–14	13.5	11.8	129.6	99.9
15–24	14.7	20.2	105.2	143.0
25–34	14.1	20.4	80.3	133.6
35–44	18.5	33.8	68.3	107.4
45–54	25.6	30.3	70.0	113.7
55–64	42.3	52.7	70.0	105.4
65–74	74.2	67.2	88.7	123.0
75+	109.7	72.4	73.2	82.7

Source: ABS 2006r.

**Table A22.2: Hospital separations for chronic obstructive pulmonary disease and asthma per 100,000 population, by age and sex, 2004–05**

	COPD		Asthma	
	Males	Females	Males	Females
0–14	14.6	12.2	648.8	390.6
15–24	14.7	20.3	74.6	135.1
25–34	38.6	33.0	61.8	127.5
35–44	99.9	107.7	53.2	123.5
45–54	286.3	293.2	50.8	139.0
55–64	780.5	629.8	65.6	161.0
65–74	1,644.5	1,192.1	72.3	169.4
75+	1,628.9	693.9	88.2	200.4

Source: AIHW National Hospital Morbidity Database.

**Table A23.1: Level of psychological current distress, by age and sex, 2004–05 (per cent)**

	Low (10–15)	Moderate (16–21)	High (22–29)	Very high (30–50)	Total <sup>(a)</sup>	Number
<b>Males</b>						
18–24	60.4	27.1	9.1	3.3	100.0	958,700
25–34	64.3	26.4	7.0	2.3	100.0	1,396,500
35–44	64.7	23.8	7.9	3.4	100.0	1,468,300
45–54	67.8	21.0	7.0	4.0	100.0	1,351,300
55–64	70.4	18.0	6.7	4.6	100.0	1,064,400
65–74	74.4	15.5	7.3	2.5	100.0	659,400
75+	69.4	19.7	7.3	3.5	100.0	460,800
Total <sup>(b)</sup>	66.6	22.4	7.5	3.3	100.0	7,359,400
<b>Females</b>						
18–24	49.4	31.8	15.2	3.5	100.0	936,400
25–34	55.3	30.2	10.9	3.5	100.0	1,417,200
35–44	57.2	26.1	11.5	5.1	100.0	1,491,000
45–54	59.4	24.1	10.7	5.5	100.0	1,383,500
55–64	69.1	17.8	8.8	4.3	100.0	1,055,800
65–74	66.5	20.9	8.8	3.7	100.0	694,300
75+	64.2	24.9	7.3	3.3	100.0	625,500
Total <sup>(b)</sup>	59.1	25.7	10.8	4.3	100.0	7,603,700
<b>Persons</b>						
18–24	55.0	29.5	12.1	3.4	100.0	1,895,100
25–34	59.8	28.3	9.0	2.9	100.0	2,813,600
35–44	60.9	25.0	9.7	4.3	100.0	2,959,200
45–54	63.5	22.6	8.9	4.8	100.0	2,734,800
55–64	69.7	17.9	7.8	4.4	100.0	2,120,200
65–74	70.4	18.3	8.1	3.1	100.0	1,353,700
75+	66.4	22.7	7.3	3.4	100.0	1,086,400
<b>Total</b>	<b>62.8</b>	<b>24.1</b>	<b>9.2</b>	<b>3.8</b>	<b>100.0</b>	<b>14,963,100</b>

(a) Total includes not stated. Table A23.2: Suicide, number of deaths and age-specific death rates, by age and sex, 2005

**Table A23.2: Suicide, number of deaths and age-specific death rates, by age and sex, 2005**

	Males		Females		Persons	
	Number	Per cent	Number	Per cent	Number	Per cent
15–24	233	16.2	57	4.2	290	10.4
25–34	363	25.1	79	5.5	442	15.3
35–44	370	24.6	94	6.2	464	15.4
45–54	315	22.6	85	6.0	400	14.3
55–64	161	14.6	50	4.6	211	9.6
65–69	47	12.3	20	5.1	67	8.7
70–74	49	16.3	18	5.5	67	10.6
75+	111	21.6	38	5.1	149	11.8
<b>Total<sup>(a)</sup></b>	<b>1,657</b>	<b>16.4</b>	<b>444</b>	<b>4.3</b>	<b>2,101</b>	<b>10.3</b>

(a) Includes deaths of persons aged under 15 and age not stated. Crude rates per 100,000 estimated resident population.

Note: Suicides data are presented by year of registration, rather than the year in which the death occurred. Over the last decade, around 93% of suicide deaths were registered in the same year in which the death occurred, and 7% in the year immediately following.

Source: Reproduced from ABS 2007i, 2007m: Tables 2, 3 & 4.

**Table A24.1: Prevalence of various forms of arthritis per 1,000 population, by age and sex, 2004–05**

	Osteoarthritis		Rheumatoid arthritis		Osteoporosis	
	Males	Females	Males	Females	Males	Females
0-14	0	0.4	0	0.3	0	0.8
15-24	0.6	4.2	1.3	5.0	0.4	0.8
25-34	14.0	14.2	5.2	6.0	5.2	4.7
35-44	35.3	42.3	16.7	26.5	2.0	15.0
45-54	76.2	113.5	23.4	43.9	6.7	36.6
55-64	168.0	248.1	65.1	55.9	21.5	110.9
65-74	193.2	330.5	68.8	100.4	38.1	192.3
75+	254.8	344.7	64.7	58.7	47.0	262.0

Source: ABS 2006q.

**Table A24.2: Hospital separations for fall-related hip fractures, by age and sex, 2004–05 (number)**

Age	Males	Females
65-69	326	634
70-74	576	1,112
75-79	1,007	2,318
80-84	1,389	4,035
85+	1,980	6,823

Source: AIHW National Hospital Morbidity Database.

**Table A26.1: Prevalence of eye diseases, by age, 2004 (per cent)**

	Age-related macular degeneration		Glaucoma	Diabetic retinopathy
	Cataract			
40-49	2.3	NA	0.6	0.5
50-54	5	0.27	0.75	1.1
55-59	8.8	0.32	0.93	1.7
60-64	15.3	0.49	1.2	2.5
65-69	25.1	0.89	1.61	3.3
70-74	37.6	1.74	2.21	3.75
75-79	51.3	3.68	3.13	4.2
80+	74.7	14.75	6.44	NA

Source: AIHW 2005f.

**Table A26.2: Prevalence of blindness and visual impairment, by age, 2004 (per cent)**

	Blindness	Visual impairment
40-49	0	0.6
50-59	0.1	2.3
60-69	0.3	4.7
70-79	0.7	11.1
80-89	4.1	28.7
90+	17.8	40.3

Note: Visual impairment was defined as visual acuity <6/12 and blindness as visual acuity <6/60. Visual acuity of 6/12 is the ability to see only at 6 metres what the normal eye can see at 12 metres. Visual impairment includes blindness.

Source: AIHW 2005f.

**Table A29.1: Need for assistance by type of assistance and whether need was met, people aged 65 and over living in households, by sex, 2003**

Assistance required	Extent to which need met			Total	Number needing assistance	Proportion of older people
	Fully	Partly	Not at all			
<b>Females</b>						
<b>Personal activities<sup>(a)</sup></b>						
Self-care	86.6	*5.6	*7.8	100.0	119,500	9.4
Mobility	82.4	10.6	7.0	100.0	226,400	17.9
Communication	93.5	**4.8	**1.7	100.0	16,800	1.3
Cognition or emotion	77.1	14.1	*8.8	100.0	90,300	7.1
Health care	85.8	6.6	7.6	100.0	285,600	22.5
<i>All needing assistance with personal activities<sup>(b)</sup></i>	75.6	18.9	5.5	100.0	376,200	29.7
<b>Other activities</b>						
Transport	81.5	9.6	8.9	100.0	332,400	26.2
Paperwork	92.6	*3.5	*3.9	100.0	98,800	7.8
Housework	82.4	14.1	3.4	100.0	326,500	25.8
Property maintenance	78.7	16.5	4.7	100.0	444,600	35.1
Meal preparation	91.1	*7.5	**1.4	100.0	103,800	8.2
<i>All needing assistance with at least one activity<sup>(b)</sup></i>	65.2	30.2	4.6	100.0	633,700	50.0
<b>Males</b>						
<b>Personal activities<sup>(a)</sup></b>						
Self-care	82.5	*5.4	12.1	100.0	88,400	8.3
Mobility	81.4	9.4	9.3	100.0	113,400	10.6
Communication	85.5	*11.6	**2.9	100.0	20,200	1.9
Cognition or emotion	78.8	16.1	*5.1	100.0	53,500	5.0
Health care	86.5	8.1	5.3	100.0	187,700	17.6
<i>All needing assistance with personal activities<sup>(b)</sup></i>	75.3	19.4	5.3	100.0	237,600	22.3
<b>Other activities</b>						
Transport	77.1	10.0	12.9	100.0	183,300	17.2
Paperwork	87.4	*7.8	*4.8	100.0	75,400	7.1
Housework	81.0	13.3	*5.7	100.0	146,600	13.8
Property maintenance	75.1	18.0	6.9	100.0	227,500	21.4
Meal preparation	87.6	*8.3	*4.1	100.0	66,500	6.2
<i>All needing assistance with at least one activity<sup>(b)</sup></i>	62.9	30.9	6.2	100.0	370,700	34.8
<b>Persons</b>						
<b>Personal activities<sup>(a)</sup></b>						
Self-care	84.8	5.5	9.6	100.0	207,900	8.9
Mobility	82.1	10.2	7.7	100.0	339,800	14.6
Communication	89.1	*8.5	**2.4	100.0	37,000	1.6
Cognition or emotion	77.7	14.9	7.4	100.0	143,800	6.2
Health care	86.1	7.2	6.7	100.0	473,200	20.3
<i>All needing assistance with personal activities<sup>(b)</sup></i>	75.5	19.1	5.4	100.0	613,800	26.3

Continued..



**Table A29.1 (continued): Need for assistance by type of assistance and whether need was met, people aged 65 and over living in households, by sex, 2003**

Assistance required	Extent to which need met			Total	Number needing assistance	Proportion of older people
	Fully	Partly	Not at all			
<b>Other activities</b>						
Paperwork	90.4	*5.3	*4.3	100.0	174,100	7.5
Transport	80.0	9.7	10.3	100.0	515,700	22.1
Housework	82.0	13.9	4.1	100.0	473,100	20.3
Property maintenance	77.5	17.0	5.5	100.0	672,200	28.8
Meal preparation	89.7	7.8	*2.4	100.0	170,300	7.3
<b>Total needing assistance with at least one activity<sup>(b)</sup></b>	<b>64.4</b>	<b>30.5</b>	<b>5.2</b>	<b>100.0</b>	<b>1,004,400</b>	<b>43.0</b>

\* Estimate has a relative standard error of 25-50% and should be used with caution.

\*\* Estimate has a relative standard error greater than 50% and is considered too unreliable for general use.

(a) These activities were asked only of persons with a disability.

(b) Total may be less than the sum of the components as persons may need assistance with more than one activity. Because people may have different levels of met/unmet need for different activities, the percentages are not simply the average of the percentages for the individual activities.

Source: ABS 2004a.

**Table A31.1: Age profile index of pharmaceutical expenditure per person and pharmaceutical expenditure as a proportion of total government health expenditure, by age, 2005-06**

Age group	Index of pharmaceutical expenditure per person	Population	Share of total expenditure on pharmaceuticals (%)
0-4	0.07	1,264,507	0.4
5-14	0.08	2,713,714	1.1
15-24	0.17	2,819,834	2.4
25-34	0.32	2,869,930	4.6
35-44	0.52	3,008,177	7.8
45-54	0.91	2,794,168	12.6
55-64	1.81	2,190,278	19.7
65-74	3.47	1,398,831	24.1
75-84	4.50	954,143	21.3
85+	3.87	315,027	6.1
<b>Total population</b>	<b>1.00</b>	<b>20,328,609</b>	<b>100.0</b>

Sources: AIHW calculations based on data from Costello 2007 and ABS 2006s.

**Table A32.1: Trends in service provision in private general practice among patients aged 65 and over**

Service area	1993-94	1998-99	2003-04
	Services per visit		
Oral examinations	0.332	0.385	0.415
X-rays	0.103	0.173	0.230
Fillings	0.642	0.577	0.641
Dental prophylaxis	0.224	0.231	0.253
Extraction	0.093	0.072	0.091
Endodontics/root canal treatment	0.084	0.075	0.096
Crowns	0.059	0.094	0.097
Dentures	0.300	0.322	0.257

Source: Brennan & Spencer 2006.

**Table A33.1: Patient days, average length of stay, and patient days per 1,000 population for patients aged 45 and over, 2004–05**

Sex/age group	Patient days			Average length of stay per hospital separation (days) <sup>(a)</sup>		Patient days per 1,000 population
	Not same-day	Same-day	Total	Not same-day	All separations	
<b>Males</b>						
45–64	2,092,937	617,145	2,710,082	5.6	2.7	1,088
65–74	1,602,169	357,769	1,959,938	6.9	3.3	2,872
75–84	2,100,824	294,817	2,395,641	8.5	4.4	5,779
85+	877,329	46,351	923,680	10.5	7.1	9,070
65+	4,580,322	698,937	5,279,259	8.2	4.2	4,404
<b>Females</b>						
45–64	1,892,477	622,826	2,515,303	5.5	2.6	1,008
65–74	1,432,354	312,420	1,744,774	7.4	3.5	2,436
75–84	2,448,554	247,588	2,696,142	9.3	5.3	4,997
85+	1,652,611	50,460	1,703,071	11.3	8.7	7,989
65+	5,533,519	610,468	6,143,987	9.2	5.1	4,182
<b>Persons</b>						
45–64	3,985,414	1,239,971	5,225,385	5.6	2.7	1,048
65–74	3,034,523	670,189	3,704,712	7.2	3.4	2,648
75–84	4,549,378	542,405	5,091,783	8.9	4.8	5,336
85+	2,529,940	96,811	2,626,751	11.0	8.0	8,338
<b>65+</b>	<b>10,113,841</b>	<b>1,309,405</b>	<b>11,423,246</b>	<b>8.7</b>	<b>4.6</b>	<b>4,282</b>

(a) A patient's hospital stay may include one or more care types, each of which is associated with a hospital separation. Therefore, for a hospital stay which is made up of acute care and rehabilitation, two 'hospital separations' will be recorded for the patient's hospital stay.

Note: This table includes care types of acute care, rehabilitation, palliative care, geriatric evaluation and management, psychogeriatric care, maintenance care, other admitted patient care. It excludes hospital boarder and posthumous organ procurement care types.

Source: AIHW analysis of the National Hospital Morbidity Database.

**Table A33.2: Patient days by care type, ages 45 and over, 2004–05 (per cent)**

	Acute care	Rehabilitation	Palliative care	GEM	Psycho-geriatric care	Maintenance care	Other care	Not reported	Total
<b>Males</b>									
45-64	88.5	5.9	1.4	0.3	0.5	3.0	0.4	–	100.0
65-74	83.6	7.1	2.4	1.2	2.0	3.5	0.2	–	100.0
75-84	77.4	9.7	2.3	2.2	1.6	6.5	0.3	–	100.0
85+	69.3	11.2	2.0	3.5	1.0	12.9	0.2	–	100.0
65+	78.3	9.0	2.3	2.0	1.7	6.5	0.2	–	100.0
<b>Females</b>									
45-64	90.4	5.3	1.5	0.4	0.5	1.8	0.3	–	100.0
65-74	80.7	8.8	2.0	1.4	3.2	3.6	0.2	–	100.0
75-84	72.9	13.8	1.6	3.0	1.8	6.6	0.2	–	100.0
85+	65.0	14.5	1.3	4.7	0.8	13.5	0.1	–	100.0
65+	73.0	12.6	1.6	3.0	1.9	7.7	0.2	–	100.0
<b>Persons</b>									
45-64	89.4	5.6	1.4	0.3	0.5	2.4	0.4	–	100.0
65-74	82.2	7.9	2.2	1.3	2.6	3.5	0.2	–	100.0
75-84	75.0	11.9	2.0	2.6	1.7	6.6	0.2	–	100.0
85+	66.5	13.3	1.5	4.3	0.9	13.3	0.2	–	100.0
<b>65+</b>	<b>75.4</b>	<b>10.9</b>	<b>1.9</b>	<b>2.6</b>	<b>1.8</b>	<b>7.1</b>	<b>0.2</b>	<b>–</b>	<b>100.0</b>

– Nil or rounded to zero.

GEM = geriatric evaluation and management.

Note: Table excludes hospital boarder and posthumous organ procurement care types.

Source: AIHW analysis of the National Hospital Morbidity Database.

**Table A34.1: Hospitalisation<sup>(a)</sup> for injury at ages 45 and over, 2004–05**

Sex/age group	Hospitalisations	Estimated resident population	Hospitalisation rate (per 1,000)
<b>Males</b>			
45–54	25,036	1,387,951	18.0
55–64	21,059	1,101,882	19.1
65–74	16,907	682,453	24.8
75–84	17,454	414,572	42.1
85+	7,890	101,840	77.5
65+	42,251	1,198,865	35.2
<b>Females</b>			
45–54	19,014	1,406,217	13.5
55–64	17,603	1,088,396	16.2
65–74	17,608	716,378	24.6
75–84	27,904	539,571	51.7
85+	21,284	213,187	99.8
65+	66,796	1,469,136	45.5
<b>Persons</b>			
45–54	44,050	2,794,168	15.8
55–64	38,662	2,190,278	17.7
65–74	34,515	1,398,831	24.7
75–84	45,358	954,143	47.5
85+	29,174	315,027	92.6
<b>65+</b>	<b>109,047</b>	<b>2,668,001</b>	<b>40.9</b>

(a) Based on separations with a principal diagnosis code of ICD-10-AM U50–Y98, excluding separations with admission mode of transfer from acute hospital or statistical admission (change in care type).

Note: Table includes care types of acute care, rehabilitation, palliative care, geriatric evaluation and management, psychogeriatric care, maintenance care, other admitted patient care. Excludes care types of hospital boarder and posthumous organ procurement.

Source: AIHW analysis of the National Hospital Morbidity Database; estimated resident population as at 30 June 2005 (ABS 2006d).

**Table A34.2: Injury-related hospitalisations of people aged 65 and over by external cause of injury, 2004–05 (number)**

External cause of injury	65–74	75–84	85+	Total
Falls	12,771	26,433	22,915	62,119
Complications of medical and surgical care	13,769	13,397	5,015	32,181
Exposure/contact with heat, substances, currents or forces of nature or other unspecified factors	3,479	3,538	1,818	8,835
Exposure to mechanical forces	2,669	1,932	741	5,342
Transport accident	2,075	1,908	566	4,549
Other <sup>(a)</sup>	1,073	896	442	2,411
<i>Total with external cause code</i>	<i>34,507</i>	<i>45,339</i>	<i>29,168</i>	<i>109,014</i>
External cause not recorded	8	19	6	33
<b>Total</b>	<b>34,515</b>	<b>45,358</b>	<b>29,174</b>	<b>109,047</b>

(a) Includes: sequelae of external causes or supplementary factors related to external causes of sickness and death; accidental drowning/submersion or other accidental threat to breathing; assault; intentional self-harm; event of undetermined intent.

*Notes*

1. ICD-10-AM diagnosis codes U50–Y98.
2. Table excludes in-transfers and statistical admissions.
3. Table includes care types of acute care, rehabilitation, palliative care, geriatric evaluation and management, psychogeriatric care, maintenance care, other admitted patient care. Excludes care types of hospital boarder and posthumous organ procurement.
4. More than one external cause can be recorded on a patient record. Columns may add to more than the total separations.
5. Each category of external cause is counted once only per separation, i.e. a separation with two types of fall recorded is counted once against 'Falls'.
6. External causes can be coded in connection with an additional diagnosis of injury, poisoning and certain other consequences of external causes and a non-injury principal diagnosis, for example when a patient is admitted to hospital for another reason but sustains an accidental injury or complication of treatment while in hospital. Separations of this type are excluded from the table.

Source: AIHW analysis of the National Hospital Morbidity Database.

**Table A36.1: Home and Community Care clients, by age and sex, 2004–05 (number)**

Sex	< 65	65–74	75–84	85+	Total 65+ <sup>(a)</sup>	Total people <sup>(a)</sup>
Male	74,500	50,900	87,600	44,300	183,800	258,300
Female	106,800	92,000	177,000	104,700	375,500	482,200
Persons <sup>(b)</sup>	182,400	143,400	265,700	149,600	561,800	744,200

(a) Includes missing ages. (Age as at 30 June 2005. Dates of birth coded as 1 January 1900 or 1901 are treated as missing but over age 65).

(b) Includes missing sex.

Note: Totals may be subject to rounding error.

Source: AIHW analysis of HACC Minimum Data Set. Methodological differences result in slightly different numbers from those published in the HACC MDS 2004–05 annual bulletin.

**Table A36.2: Home and Community Care clients aged 65 and over, by assistance type and age, 2004–05 (per cent)**

Assistance type	65–74	75–84	85+	Total 65+ <sup>(a)</sup>
Assessment, case management or case planning <sup>(b)</sup>	43.5	45.8	46.4	45.3
Domestic assistance	26.7	31.2	32.4	30.2
Meals (at home or at a centre) <sup>(b)</sup>	14.7	21.1	28.6	21.5
Nursing (home or centre based) <sup>(b)</sup>	20.5	19.7	23.0	20.8
Transport	15.6	18.1	17.2	17.3
Allied health (at home or at centre) <sup>(b)</sup>	20.3	16.3	14.6	16.8
Home maintenance	15.9	17.3	14.7	16.2
Centre based day care	10.8	10.8	11.1	10.9
Social support	9.1	10.4	12.1	10.5
Personal care	6.5	8.1	12.4	8.8
Counselling	8.0	6.9	6.6	7.1
Provision of aids/car modifications <sup>(b)</sup>	5.2	4.8	5.0	4.9
Home modification	3.1	3.4	3.0	3.2
Respite care	1.5	0.8	0.5	0.9
Other food services	0.4	0.4	0.6	0.4
Linen services	0.1	0.2	0.2	0.2
<b>Total clients</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(a) Includes missing age.

(b) Assistance type includes more than one category. Clients are only counted once per assistance type. For example, a client receiving allied health service both at home and at a centre is counted only once for allied health services.

*Notes*

1. For 2004–05, 3,100 agencies submitted data to the HACC MDS.
2. Age is calculated at 30 June 2005. Dates of birth coded as 1 January 1900 or 1901 are considered missing but over age 65 and included in 65+ totals.
3. The sum of percentages of clients is more than 100% as people may receive more than one type of assistance.

Source: AIHW analysis of HACC Minimum Data Set. Methodological differences result in slightly different numbers from those published in the HACC MDS 2004–05 annual bulletin.

**Table A37.1: Operational Community Aged Care Packages, by state/territory,<sup>(a)</sup> 30 June 1992 to 30 June 2006 (number)**

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
1992	68	25	10	12	120	0	0	0	235
1993	138	82	54	26	150	20	0	0	470
1994	291	313	253	81	224	43	20	2	1,227
1995	834	640	443	210	285	98	25	7	2,542
1996	1,517	1,104	731	383	468	160	47	21	4,431
1997	2,199	1,369	1,027	538	634	228	84	45	6,124
1998	3,538	2,314	1,728	822	989	378	168	109	10,046
1999	4,685	3,323	2,440	1,161	1,258	450	266	170	13,753
2000 <sup>(b)</sup>	6,337	4,517	3,163	1,571	1,636	584	308	193	18,309
2001 <sup>(b)</sup>	8,626	5,974	4,155	2,278	2,270	679	336	312	24,630
2002 <sup>(b)</sup>	9,267	6,571	4,338	2,251	2,460	728	362	448	26,425
2003 <sup>(b)</sup>	9,628	7,119	4,455	2,375	2,611	810	372	511	27,881
2004 <sup>(b)</sup>	9,955	7,438	4,626	2,442	2,725	856	391	615	29,048
2005 <sup>(b)</sup>	10,663	7,959	5,033	2,553	2,841	896	426	602	30,973
2006 <sup>(b)</sup>	11,935	9,116	5,978	3,094	3,184	973	466	637	35,383

(a) 'State/territory' refers to the location of the outlet.

(b) Packages provided by Multi-Purpose Services and services receiving flexible funding under the Aboriginal and Torres Strait Islander Aged Care Strategy are included.

Source: AIHW 2007a.



**Table A37.2: Length of time with a Community Aged Care Package, for separations in 2005–06 (per cent)**

<b>Length of time</b>	<b>2005–06</b>
< 4 weeks	4.2
4 to < 8 weeks	5.8
8 to < 13 weeks	6.7
13 to < 26 weeks	13.7
26 to < 39 weeks	9.9
39 to < 52 weeks	7.9
1 to < 2 years	20.9
2 to < 3 years	12.2
3 to < 4 years	7.6
4+ years	11.1
<b>Total</b>	<b>100.0</b>

Source: AIHW analysis of DoHA Aged and Community Care Management Information System (ACCMIS) database (as at 30 November 2006).

**Table A38.1: Length of time on EACH package for separations, 2005–06**

Sex/duration	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
<b>Females</b>									
< 4 weeks	10	7	9	3	3	0	2	1	35
4 to < 8 weeks	27	7	8	1	4	2	4	1	54
8 to < 13 weeks	29	19	7	2	14	1	0	1	73
13 to < 26 weeks	52	26	23	6	16	5	4	2	134
26 to < 39 weeks	26	19	14	10	5	3	2	1	80
39 to < 52 weeks	26	12	9	4	8	3	3	1	66
1 to < 2 years	32	36	18	5	8	6	1	3	109
2 to < 3 years	10	11	3	1	6	0	1	0	32
3 to < 4 years	2	0	0	1	0	0	0	0	3
4+ years	3	0	0	1	0	0	0	0	4
<b>Total females</b>	<b>217</b>	<b>137</b>	<b>91</b>	<b>34</b>	<b>64</b>	<b>20</b>	<b>17</b>	<b>10</b>	<b>590</b>
<b>Males</b>									
< 4 weeks	10	5	1	3	5	1	0	1	26
4 to < 8 weeks	23	12	10	2	2	2	2	0	53
8 to < 13 weeks	25	15	8	6	6	1	4	2	67
13 to < 26 weeks	26	20	11	11	8	1	1	0	78
26 to < 39 weeks	19	23	11	4	4	6	1	4	72
39 to < 52 weeks	17	18	1	1	4	0	3	2	46
1 to < 2 years	27	30	13	4	4	1	1	4	84
2 to < 3 years	4	4	3	3	2	1	4	2	23
3 to < 4 years	0	0	0	1	0	0	0	0	1
4+ years	2	0	0	1	0	0	0	0	3
<b>Total males</b>	<b>153</b>	<b>127</b>	<b>58</b>	<b>36</b>	<b>35</b>	<b>13</b>	<b>16</b>	<b>15</b>	<b>453</b>
<b>Persons</b>									
< 4 weeks	20	12	10	6	8	1	2	2	61
4 to < 8 weeks	50	19	18	3	6	4	6	1	107
8 to < 13 weeks	54	34	15	8	20	2	4	3	140
13 to < 26 weeks	78	46	34	17	24	6	5	2	212
26 to < 39 weeks	45	42	25	14	9	9	3	5	152
39 to < 52 weeks	43	30	10	5	12	3	6	3	112
1 to < 2 years	59	66	31	9	12	7	2	7	193
2 to < 3 years	14	15	6	4	8	1	5	2	55
3 to < 4 years	2	0	0	2	0	0	0	0	4
4+ years	5	0	0	2	0	0	0	0	7
<b>Total persons</b>	<b>370</b>	<b>264</b>	<b>149</b>	<b>70</b>	<b>99</b>	<b>33</b>	<b>33</b>	<b>25</b>	<b>1,043</b>

Source: AIHW 2007a.

**Table A39.1: Occupied residential aged care respite days per 1,000 persons in stated population for financial years 1990–91 to 2005–06**

Year	Per 1,000 people aged 70 and over	Per 1,000 people aged 65 and over with a severe or profound restriction
1990-91	263.4	877.0
1991-92	308.2	1,027.2
1992-93	351.9	1,172.6
1993-94	409.1	1,366.9
1994-95	463.1	1,544.2
1995-96	532.1	1,771.8
1996-97	559.4	1,860.1
1997-98	561.5	1,866.0
1998-99	597.3	1,979.2
1999-00	580.6	1,913.4
2000-01	570.2	1,878.1
2001-02	536.2	1732.5
2002-03	536.5	1718.8
2003-04	539.3	1713.8
2004-05	548.8	1722.5
2005-06	563.9	1783.1

Sources: AIHW analysis of DoHA Aged and Community Care Management Information System (ACCMIS) database; AIHW 2002b; ABS 2004a, 2006c.

**Table A39.2: Transfers from residential respite to permanent residential aged care, 1999–00 to 2005–06 (number)**

Year	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
Transfers	8,694	8,793	8,388	8,793	8,999	9,273	10,287
Permanent admissions	45,476	46,545	47,345	51,200	53,356	52,462	52,964
Transfer admissions from respite (%)	19.1	18.9	17.7	17.2	16.9	17.7	19.4

Note: The admissions figures exclude permanent to permanent transfers.

Source: AIHW analysis of DoHA Aged and Community Care Management Information System (ACCMIS) database.

**Table A40.1: Permanent residents in aged care by age and sex, 30 June 2006 (number)**

Age	Females	Males	Persons
Under 65	3,101	3,461	6,562
65-69	2,289	2,416	4,705
70-74	4,548	3,796	8,344
75-79	11,662	6,929	18,591
80-84	23,658	9,778	33,436
85-89	30,002	9,304	39,306
90-94	23,886	5,618	29,504
95+	9,616	1,673	11,289
<b>Total</b>	<b>108,762</b>	<b>42,975</b>	<b>151,737</b>

Source: AIHW 2007f.

**Table A41.1: Age- and sex-specific usage rates of permanent residential aged care, 30 June 1999, 2002 and 2006 (per 1,000 population)**

Sex/age	2000	2003	2006
<b>Females</b>			
65-74	11.4	10.3	9.6
75-84	70.1	67.5	66.2
85+	308.9	294.7	284.0
<b>65+</b>	<b>71.6</b>	<b>70.9</b>	<b>71.7</b>
<b>Males</b>			
65-74	10.4	9.7	9.2
75-84	42.8	40.5	40.5
85+	173.2	161.4	152.8
<b>65+</b>	<b>32.9</b>	<b>32.2</b>	<b>32.9</b>

Source: AIHW analysis of DoHA Aged and Community Care Management Information System (ACCMIS) database, ABS 2006c.

**Table A42.1: Estimated resident population, by age, sex and Indigenous status, 2006**

	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
	Number		Per cent	
<b>Females</b>				
0-4	29881	606,587	5.96	3.00
5-9	29569	623,853	5.90	3.09
10-14	29913	651,542	5.96	3.23
15-19	27180	661,220	5.42	3.27
20-24	22881	698,624	4.56	3.46
25-29	18624	679,466	3.71	3.36
30-34	19061	730,706	3.80	3.62
35-39	17921	749,967	3.57	3.71
40-44	15560	756,570	3.10	3.75
45-49	12499	741,653	2.49	3.67
50-54	9728	674,919	1.94	3.34
55-59	7258	627,578	1.45	3.11
60-64	4576	487,199	0.91	2.41
65-69	3355	390,588	0.67	1.93
70-74	2144	324,216	0.43	1.61
75+	2455	753,857	0.49	3.73
<b>Total</b>	<b>252,605</b>	<b>10,158,545</b>	<b>50.36</b>	<b>50.29</b>
<b>Males</b>				
0-4	31424	640,759	6.27	3.17
5-9	30434	656,923	6.07	3.25
10-14	31993	687,265	6.38	3.40
15-19	28929	697,337	5.77	3.45
20-24	23131	724,796	4.61	3.59
25-29	18167	690,209	3.62	3.42
30-34	17510	725,876	3.49	3.59
35-39	15912	743,631	3.17	3.68
40-44	13829	748,750	2.76	3.71
45-49	11568	729,568	2.31	3.61
50-54	8976	670,057	1.79	3.32
55-59	6644	630,079	1.32	3.12
60-64	4220	491,852	0.84	2.43
65-69	2790	382,436	0.56	1.89
70-74	1724	301,054	0.34	1.49
75+	1623	520,872	0.32	2.58
<b>Total</b>	<b>248,874</b>	<b>10,041,464</b>	<b>49.62</b>	<b>49.70</b>

Note: Limited population data from the 2006 Australian Census was released during the preparation of this topic. However, because the age and sex breakdown for the Australian Indigenous population had not been released, this table presents the projected age and sex breakdown at 30 June 2006 based on 2001 Australian Census data. The preliminary age and sex breakdown for the total Australian population based on the 2006 Australian Census is presented in Table 1.1.

Source: ABS 2004c.

**Table A43.1: Estimated resident population aged 65 and over, by age, sex and cultural and linguistic diversity,<sup>(a)</sup> 30 June 2006<sup>(b)</sup>**

	Overseas-born				Overseas-born			
	Main English-speaking countries	Other	Australian-born	Total <sup>(b)</sup>	Main English-speaking countries	Other	Australian-born	Total
	Number				Per cent			
<b>Females</b>								
65-74	99,661	162,281	466,554	728,496	13.7	22.3	64.0	100.0
75-84	63,444	105,351	376,388	545,183	11.6	19.3	69.0	100.0
85+	29,913	31,417	165,663	226,993	13.2	13.8	73.0	100.0
<b>65+</b>	<b>193,018</b>	<b>299,049</b>	<b>1,008,605</b>	<b>1,500,672</b>	<b>12.9</b>	<b>19.9</b>	<b>67.2</b>	<b>100.0</b>
<b>Males</b>								
65-74	104,133	169,784	423,728	697,645	14.9	24.3	60.7	100.0
75-84	57,643	94,305	272,842	424,790	13.6	22.2	64.2	100.0
85+	15,727	20,043	75,230	111,000	14.2	18.1	67.8	100.0
<b>65+</b>	<b>177,503</b>	<b>284,132</b>	<b>771,800</b>	<b>1,233,435</b>	<b>14.4</b>	<b>23.0</b>	<b>62.6</b>	<b>100.0</b>
<b>Persons</b>								
65-74	203,794	332,065	890,282	1,426,141	14.3	23.3	62.4	100.0
75-84	121,087	199,656	649,230	969,973	12.5	20.6	66.9	100.0
85+	45,640	51,460	240,893	337,993	13.5	15.2	71.3	100.0
<b>65+</b>	<b>370,521</b>	<b>583,181</b>	<b>1,780,405</b>	<b>2,734,107</b>	<b>13.6</b>	<b>21.3</b>	<b>65.1</b>	<b>100.0</b>

(a) The cultural diversity classification is based on country of birth. Overseas-born people from the main English-speaking countries are those born in New Zealand, United Kingdom, Ireland, United States of America, Canada or South Africa. The 'Other' category consists of people born overseas in other countries.

(b) Limited population data from the 2006 Australian Census was released during the preparation of this topic. However, because the age and sex breakdown for the overseas-born population had not been released, this table presents the estimated age and sex breakdown at 30 June 2006 based on 2001 Australian Census data. The preliminary age and sex breakdown for the total Australian population based on the 2006 Australian Census is presented in Table 1.1.

Sources: ABS 2006d, 2007g.



**Table A43.2: Use of aged care services, by age and cultural and linguistic diversity <sup>(a)</sup>**

	Overseas-born				Overseas-born			
	Main English-speaking countries	Other	Australian-born	Total	Main English-speaking countries	Other	Australian-born	Total
	Number				Per cent			
<b>HACC (2004–05 clients)</b>								
65–74	14,127	30,690	99,348	144,165	9.8	21.3	68.9	100.0
75–84	28,320	51,628	187,179	267,127	10.6	19.3	70.1	100.0
85+	16,712	19,554	114,227	150,493	11.1	13.0	75.9	100.0
<b>65+</b>	<b>59,159</b>	<b>101,872</b>	<b>400,754</b>	<b>561,785</b>	<b>10.5</b>	<b>18.1</b>	<b>71.3</b>	<b>100.0</b>
<b>ACAP (2004–05 clients)</b>								
65–74	1,419	3,314	10,083	14,816	9.6	22.4	68.1	100.0
75–84	5,380	10,539	36,093	52,012	10.3	20.3	69.4	100.0
85+	6,452	7,576	41,039	55,067	11.7	13.8	74.5	100.0
<b>65+</b>	<b>13,251</b>	<b>21,429</b>	<b>87,215</b>	<b>121,895</b>	<b>10.9</b>	<b>17.6</b>	<b>71.5</b>	<b>100.0</b>
<b>CACP (care recipients, 30 June 2006)</b>								
65–74	437	1,035	3,120	4,592	9.5	22.5	67.9	100.0
75–84	1,459	3,572	8,261	13,292	11.0	26.9	62.2	100.0
85+	1,571	2,160	8,357	12,088	13.0	17.9	69.1	100.0
<b>65+</b>	<b>3,467</b>	<b>6,767</b>	<b>19,738</b>	<b>29,972</b>	<b>11.6</b>	<b>22.6</b>	<b>65.9</b>	<b>100.0</b>
<b>EACH &amp; EACH Dementia (care recipients, 30 June 2006)</b>								
65–74	70	130	339	539	13.0	24.1	62.9	100.0
75–84	97	290	589	976	9.9	29.7	60.3	100.0
85+	84	192	454	730	11.5	26.3	62.2	100.0
<b>65+</b>	<b>251</b>	<b>612</b>	<b>1,382</b>	<b>2,245</b>	<b>11.2</b>	<b>27.3</b>	<b>61.6</b>	<b>100.0</b>
<b>RACS (permanent residents, 30 June 2006)</b>								
65–74	1,382	2,341	9,326	13,049	10.6	17.9	71.5	100.0
75–84	5,928	9,272	36,827	52,027	11.4	17.8	70.8	100.0
85+	10,858	9,458	59,783	80,099	13.6	11.8	74.6	100.0
<b>65+</b>	<b>18,168</b>	<b>21,071</b>	<b>105,936</b>	<b>145,175</b>	<b>12.5</b>	<b>14.5</b>	<b>73.0</b>	<b>100.0</b>

(a) Overseas-born people from the main English-speaking countries are those who were born in New Zealand, United Kingdom, Ireland, United States of America, Canada or South Africa. The 'Other' category consists of those born overseas in other countries.

Sources: AIHW analysis of HACC MDS; ABS 2006d; AIHW 2007f.

**Table A44.1: Older people by age, sex and geographic area, 30 June 2006 (number)**

Sex/age	Major cities	Inner regional	Outer regional	Remote	Very remote	Australia
<b>Males</b>						
0-64	5,976,709	1,866,808	932,466	158,139	89,574	9,022,696
65-69	240,912	96,350	47,265	5,982	2,476	392,984
70-74	188,362	74,789	35,503	4,321	1,611	304,586
75-79	160,484	62,261	28,080	3,284	1,180	255,289
80-84	109,820	39,861	17,288	1,823	700	169,492
85+	71,969	25,729	11,470	1,307	513	110,988
<i>Total males (65+)</i>	<i>771,547</i>	<i>298,990</i>	<i>139,606</i>	<i>16,718</i>	<i>6,479</i>	<i>1,233,339</i>
<b>Females</b>						
0-64	5,906,277	1,843,739	878,845	138,965	78,325	8,846,150
65-69	251,844	96,522	43,487	4,946	1,912	398,711
70-74	211,391	78,972	34,190	3,761	1,426	329,740
75-79	198,625	70,366	29,933	2,950	1,068	302,941
80-84	162,280	54,427	22,622	2,140	762	242,231
85+	152,476	50,018	21,644	2,171	679	226,989
<i>Total females (65+)</i>	<i>976,616</i>	<i>350,305</i>	<i>151,876</i>	<i>15,968</i>	<i>5,847</i>	<i>1,500,612</i>
<b>Persons</b>						
0-64	11,882,986	3,710,547	1,810,311	297,104	167,898	17,868,846
65-69	492,756	192,872	90,752	10,928	4,388	791,695
70-74	399,753	153,761	69,693	8,082	3,037	634,326
75-79	359,109	132,626	58,013	6,234	2,247	558,230
80-84	272,100	94,288	39,909	3,963	1,463	411,723
85+	224,445	75,747	33,114	3,478	1,192	337,977
<b>Total persons (65+)</b>	<b>1,748,163</b>	<b>649,295</b>	<b>291,482</b>	<b>32,685</b>	<b>12,326</b>	<b>2,733,951</b>

Source: Derived from AIHW 2007:Table A2.2.

**Table A44.2: Deaths per 100,000 population, by age, sex and geographical area, 2002-2004.**

Sex/age	Major cities	Inner regional	Outer regional	Remote <sup>(a)</sup>
<b>Males</b>				
65-69	1,501	1,637	1,759	2,259
70-74	2,643	2,864	3,069	3,116
75-79	4,501	4,808	5,034	4,809
80-84	7,623	8,130	8,298	7,775
85+	15,892	16,651	16,339	13,531
<b>Females</b>				
65-69	884	933	1,011	1,381
70-74	1,481	1,577	1,649	1,995
75-79	2,742	2,872	2,844	3,273
80-84	5,091	5,356	5,545	5,428
85+	13,094	13,601	13,303	11,986

(a) Combination of *Remote* and *Very remote*.

Source: AIHW National Mortality database.

**Table A45.1: DVA income support beneficiaries, compensation pensioners, and holders of Repatriation Health Care cards, by age, 7 July 2007.**

	< 55	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90+	Total
<b>Income support beneficiaries</b>										
Veteran service pensioners:										
Males	706	7,867	13,374	6,363	5,770	6,591	36,448	28,832	6,563	112,514
Females	14	12	21	25	16	26	427	425	218	1,184
<i>Persons</i>	<i>720</i>	<i>7,879</i>	<i>13,395</i>	<i>6,388</i>	<i>5,786</i>	<i>6,617</i>	<i>36,875</i>	<i>29,257</i>	<i>6,781</i>	<i>113,698</i>
Partners/widows	4,827	8,735	7,977	6,526	8,145	18,164	27,074	12,705	2,710	96,864
<i>Total service pensioners</i>	<i>5,547</i>	<i>16,614</i>	<i>21,372</i>	<i>12,914</i>	<i>13,931</i>	<i>24,781</i>	<i>63,949</i>	<i>41,962</i>	<i>9,491</i>	<i>210,562</i>
Income Support Supplement	248	359	1,103	1,994	4,627	16,307	30,417	21,067	8,349	84,471
Social security age pensioners	6	8	30	219	329	1,168	2,851	1,176	281	6,068
Commonwealth Seniors Health Card holders	–	6	789	809	702	1,492	4,045	2,547	695	11,086
<i>Net total income support beneficiaries</i>	<i>5,801</i>	<i>16,987</i>	<i>23,294</i>	<i>15,936</i>	<i>19,589</i>	<i>43,748</i>	<i>101,262</i>	<i>66,752</i>	<i>18,816</i>	<i>312,187</i>
<b>Compensation beneficiaries<sup>(a)</sup></b>										
War widows(ers)' pension	1,010	1,388	1,873	2,814	6,008	20,531	38,775	27,365	10,824	110 592
Total DVA disability pensioners	22,069	16,121	18,225	6,719	4,809	5,717	34,403	6,347	–	139 727
<b>Treatment card holders<sup>(b)</sup></b>										
Gold Card										
Males	3,656	9,716	13,993	5,378	5,907	6,895	41,093	40,644		127,282
Females	1,658	1,436	1,921	2,843	6,012	20,569	39,750	39,170		113,361
<i>Persons</i>	<i>5,314</i>	<i>11,152</i>	<i>15,914</i>	<i>8,221</i>	<i>11,919</i>	<i>27,464</i>	<i>80,843</i>	<i>79,814</i>		<i>240,643</i>
White Card										
Males	18,298	7,297	5,713	2,632	1,424	1,781	6,604	4,592		48,343
Females	2,014	114	44	34	31	33	1,412	955		4,637
<i>Persons</i>	<i>20,312</i>	<i>7,411</i>	<i>5,757</i>	<i>2,666</i>	<i>1,455</i>	<i>1,814</i>	<i>8,016</i>	<i>5,547</i>		<i>52,980</i>
Orange Card <sup>(c)</sup>	..	..	..	..	..	..	..	..		14,963

(a) Compensation beneficiaries may also receive income support.

(b) For treatment card holders, the highest age group includes all persons aged 85 and over.

(c) Orange Card holders are aged 70 and over.

Source: DVA 2007e:Tables 7, 12, and 13, DVA 2007f:Tables 4(G) and 4(W).

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## LIST OF TABLES

Table 1.1:	Census-adjusted estimated resident population for Australia, 30 June 2006	2
Table 1.2:	Estimated resident population aged 65 and over, by cultural diversity, age and sex, 30 June 2006	3
Table 2.1:	Population aged 65 and over, by age and sex, 2006 to 2036	5
Table 2.2:	Population age structure, international comparison, 2005 and 2010	6
Table 3.1:	Registered marital status, by age and sex, 2006 (per cent)	10
Table 4.1:	Housing profile of older Australians, by age, 1991, 1996 and 2001 (per cent)	13
Table 4.2:	Housing tenure profile of household, by age of reference person, 2000–01 (per cent)	14
Table 4.3:	CRA recipients aged 65 and over, affordability after CRA payment by rent type, June 2002 (per cent)	15
Table 5.1:	Ease of getting to places needed, by age, sex, and remoteness area, 2006 (per cent)	17
Table 5.2:	Whether had access to motor vehicles to drive, by remoteness, 2006 (per cent)	18
Table 5.3:	Road fatalities by road user type, Australia 2006	19
Table 6.1:	Labour force status of persons aged 45 and over, October 1996 and October 2006 (per cent)	22
Table 7.1:	Labour force status, by age and sex, 2004–05 (per cent)	24
Table 7.2:	Self-reported retirement status, by age and sex, 2003 (per cent)	25
Table 7.3:	Age at retirement, retired persons aged 45 and over, by sex, 2004–05	26
Table 7.4:	Persons aged 45 and over who intend to retire from the labour force, age they intend to retire, by sex, 2004–05	26
Table 8.1:	Volunteering, by age and sex, 2006	29
Table 8.2:	Community and civic participation in the last 12 months, by age and sex, 2006	31
Table 8.3:	Donors of money, by age and sex, 2006	31
Table 9.1:	Characteristics of grandparent families, 2003	32
Table 10.1:	Contact at least once a week with family and friends living outside the household by people aged 55 and over, by sex, 2006	35
Table 10.2:	Attendance at cultural events and venues, by age and sex, 2005–06 (per cent)	37
Table 10.3:	Participation in selected sports and physical recreation activities, by age, 2005–06	38
Table 10.4:	Domestic overnight trips, domestic daytrips and outbound trips, by age, 2005	39
Table 11.1:	Home use of computers, by age, 2004–05 (per cent)	40
Table 11.2:	Use of the Internet, by age, 2004–05 (per cent)	41
Table 11.3:	Internet transactions, by age, 2004–05 (per cent)	41
Table 11.4:	Main reason for not purchasing via the Internet, by age, 2004–05 (per cent)	41
Table 12.1:	Weekly household income and principal source of household income by age group of reference person, 2005–06	43
Table 13.1:	Age Pension recipients as at 30 June 2006	47
Table 13.2:	Retired persons, source of income at retirement and current income, 2004–05	49

Table 14.1:	Persons providing support to other relatives <sup>(a)</sup> living outside the household, 2006 (per cent)	50
Table 15.1:	Prevalence of risk behaviours among Australians aged 55 and over, by age and sex, 2004–05	54
Table 15.2:	Prevalence of biomedical risk factors among Australians aged 55 and over, by age and sex, 1999–2000	56
Table 16.1:	Self-assessed health status of Australians aged 55 and over, by age and sex, 2004–05	58
Table 16.2:	Leading causes of death in Australians aged 65 and over, by sex, Australia, 2004	59
Table 17.1:	Average number of health conditions, by disability status and age group, 2003	61
Table 18.1:	Leading causes of DALYs in 65–74 year olds, by sex, Australia, 2003	64
Table 18.2:	Leading causes of DALYs in those aged 75 and over, by sex, Australia, 2003	65
Table 20.1:	Incidence of selected cancers in older Australians, 1983, 1993 and 2003	70
Table 20.2:	Trends in mortality, selected cancers for older Australians, 1984, 1994 and 2004	72
Table 23.1:	Mental and behavioural problems, by age, 2004–05 (per cent)	80
Table 23.2:	Medication used for mental wellbeing, by age, 2004–05	82
Table 25.1:	Prevalence of dementia in older Australians, by age and sex, 2006	87
Table 25.2:	Prevalence of dementia in households and cared accommodation, by age and sex, 2003	88
Table 25.3:	Dementia in residential aged care, by age and RCS category, 2003	89
Table 25.4:	Projected number of people with dementia, by age and sex, 2006 to 2031	89
Table 26.1:	Most prevalent eye diseases and associated visual impairment and blindness among older people, 2004	90
Table 27.1:	Frequency of clinical oral conditions in four age groups, 2004–06	93
Table 27.2:	Average number of teeth with experience of dental decay among dentate Australians, by age, 1987–88 and 2004–06	94
Table 29.1:	Source of assistance received by people aged 65 and over living in households, 2003	104
Table 30.1:	Use of GPs by Australians, by age and sex, 2005–06	105
Table 30.2:	Most frequent patient reasons for encounter by people aged 65 and over, by sex, 2005–06	106
Table 30.3:	Most frequently managed problems by GPs for people aged 65 and over, by sex, 2005–06	107
Table 30.4:	Voluntary annual health assessments for people aged 75 and over, by sex, 2005–06	108
Table 31.1:	Top 15 groups of medications prescribed for people aged 65 and over, by sex, 2005–2006	109
Table 31.2:	Age-specific usage rates of medications for priority health conditions	111
Table 32.1:	Services per visit for dentate private dental patients, by age, 2003–04	112
Table 32.2:	Dentate public dental patients attending for emergency care, by age and sex, 2001–02	113
Table 33.1:	Hospital separations for people aged 45 and over by same-day status, 2004–05	114
Table 34.1:	Separations for patients aged 65 and over by principal diagnosis (ICD-10-AM chapter), all hospitals 2004–05	119

Table 35.1:	ACAT assessment outcomes, recommended long-term care setting by usual accommodation setting, 2004–05	122
Table 36.1:	Home and Community Care clients aged 65 and over, by assistance type and age, 2004–05	123
Table 36.2:	Quarterly median volume and total volume of Home and Community Care services used, by assistance type and age, 2004–05	124
Table 37.1:	Community Aged Care Package recipients, by age and sex, at 30 June 2006	127
Table 38.1:	EACH recipients by age and sex, 30 June 2006	128
Table 38.2:	EACH separations, length of stay by separation mode, 2005–06	130
Table 39.1:	Respite admissions to residential aged care, by sex and age at admission, 2005–06	131
Table 40.1:	Dependency levels of permanent residents, by age, 30 June 2006	135
Table 40.2:	Permanent aged care residents: need for at least some assistance for selected dependency items, 30 June 1999 to 30 June 2006 (per cent)	136
Table 41.1:	Operational residential aged care places, 30 June 1996 to 30 June 2006	137
Table 41.2:	Permanent residents, by level of dependency, at 30 June 1998 to 30 June 2006	139
Table 41.3:	Current permanent residents, length of stay to date, 30 June 1998 to 2006 (per cent)	139
Table 42.1:	Age- and sex-specific usage rates of Home and Community Care, Community Aged Care Packages and permanent residential aged care services (permanent residents) by Indigenous status, (per 1,000 population)	145
Table 43.1:	Usage rates of selected aged care programs, by cultural and linguistic diversity (per 1,000 people)	147
Table 44.1:	Use of aged care services, by age and geographic area, latest years	152
Table 45.1:	Clients receiving assistance from Veterans' Home Care and DVA community nursing, by age and sex, 2005–06	156
Table 45.2:	Services received by Veterans' Home Care clients, by age, 2005–06	156
Table A1.1:	Estimated resident population of Australia, by cultural diversity, age and sex, 30 June 2006	158
Table A1.2:	Selected countries of birth of overseas-born Australians, by age, 2006	159
Table A3.1:	Registered marital status, by age and sex, 2006, 2001, 1996	160
Table A3.2:	Projected living arrangements of older people, by age group, 2006 and 2026	162
Table A3.3:	Feelings of safety at home alone, by age and sex, 2006	163
Table A5.1:	Difficulty in accessing services, by age group, 2006 (per cent).	164
Table A5.2:	Trips by mode and frequency of travel, by age and sex, Sydney Greater Metropolitan Region 2002 (per cent)	164
Table A5.3:	Per cent of clients receiving transport assistance from government-funded aged care programs, by age	164
Table A6.1:	Labour force status of persons aged 45 and over, by sex, October 1996 and October 2006 (per cent)	165

Table A8.1:	Provision of unpaid assistance to persons living outside the household in last 4 weeks, by age and sex of provider, 2006	165
Table A8.2:	Type of unpaid assistance provided to persons living outside the household in last 4 weeks, by age and sex of provider, 2006 (per cent)	166
Table A9.1:	Carers and primary carers, by age and sex, 2003	167
Table A10.1:	Social activity in the last 3 months by people aged 55 and over, by sex, 2006 (per cent)	168
Table A10.2:	Active involvement in social or support groups in the last 12 months, by age and sex, 2006 (per cent)	169
Table A10.3:	Type of participation in sport and physical recreation, by age and sex, 2005–06	169
Table A12.1:	Households with mature-age reference person, mean weekly household income, household net worth and weekly household expenditure by broad expenditure group, 2003–04	170
Table A13.1:	Age Pension, full pensioners as at 30 June 2006	171
Table A13.2:	Age Pension, part pensioners as at 30 June 2006	172
Table A16.1:	Leading causes of death in 65–74 year olds, by sex, Australia, 2004	173
Table A16.2:	Leading causes of death in 75–84 year olds, by sex, Australia, 2004	173
Table A16.3:	Leading causes of death in those aged 85 and over, by sex, Australia, 2004	174
Table A16.4:	Causes of death classification	174
Table A17.1:	Disability status of older people, by age and sex, 2003	175
Table A17.2:	Severity of disability among older people with selected health conditions, 2003	176
Table A19.1:	Prevalence of selected cardiovascular diseases, by age, 2004–05	177
Table A19.2:	Hospital separations for selected cardiovascular diseases, by age, 2004–05	177
Table A19.3:	Deaths for selected cardiovascular diseases, by age, 2004	178
Table A20.1:	Incidence rates for all cancers and selected cancers, by age and sex, 2003	178
Table A21.1:	Prevalence of diabetes, 2004–05 (per cent)	178
Table A21.2:	Trends in the prevalence of diabetes, all types, 1989–90 to 2004–05 (per cent)	179
Table A21.3:	Hospitalisation rates for people with diabetic complications, by age, 2004–05	179
Table A22.1:	Prevalence of emphysema/bronchitis and asthma per 1,000 population, by age and sex, 2004–05	179
Table A22.2:	Hospital separations for chronic obstructive pulmonary disease and asthma per 100,000 population, by age and sex, 2004–05	179
Table A23.1:	Level of psychological current distress, by age and sex, 2004–05 (per cent)	180
Table A23.2:	Suicide, number of deaths and age-specific death rates, by age and sex, 2005	180
Table A24.1:	Prevalence of various forms of arthritis per 1,000 population, by age and sex, 2004–05	181
Table A24.2:	Hospital separations for fall-related hip fractures, by age and sex, 2004–05 (number)	181
Table A26.1:	Prevalence of eye diseases, by age, 2004 (per cent)	181
Table A26.2:	Prevalence of blindness and visual impairment, by age, 2004 (per cent)	181
Table A29.1:	Need for assistance by type of assistance and whether need was met, people aged 65 and over living in households, by sex, 2003	182



Table A31.1: Age profile index of pharmaceutical expenditure per person and pharmaceutical expenditure as a proportion of total government health expenditure, by age, 2005–06	183
Table A32.1: Trends in service provision in private general practice among patients aged 65 and over	183
Table A33.1: Patient days, average length of stay, and patient days per 1,000 population for patients aged 45 and over, 2004–05	184
Table A33.2: Patient days by care type, ages 45 and over, 2004–05 (per cent)	185
Table A34.1: Hospitalisation for injury at ages 45 and over, 2004–05	186
Table A34.2: Injury-related hospitalisations of people aged 65 and over by external cause of injury, 2004–05 (number)	187
Table A36.1: Home and Community Care clients, by age and sex, 2004–05 (number)	187
Table A36.2: Home and Community Care clients aged 65 and over, by assistance type and age, 2004–05 (per cent)	188
Table A37.1: Operational Community Aged Care Packages, by state/territory, 30 June 1992 to 30 June 2006 (number)	188
Table A37.2: Length of time with a Community Aged Care Package, for separations in 2005–06 (per cent)	189
Table A38.1: Length of time on EACH package for separations, 2005–06	190
Table A39.1: Occupied residential aged care respite days per 1,000 persons in stated population for financial years 1990–91 to 2005–06	191
Table A39.2: Transfers from residential respite to permanent residential aged care, 1999–00 to 2005–06 (number)	191
Table A40.1: Permanent residents in aged care by age and sex, 30 June 2006 (number)	191
Table A41.1: Age- and sex-specific usage rates of permanent residential aged care, 30 June 1999, 2002 and 2006 (per 1,000 population)	192
Table A42.1: Estimated resident population, by age, sex and Indigenous status, 2006	193
Table A43.1: Estimated resident population aged 65 and over, by age, sex and cultural and linguistic diversity, 30 June 2006	194
Table A43.2: Use of aged care services, by age and cultural and linguistic background	195
Table A44.1: Older people by age, sex and geographic area, 30 June 2006 (number)	196
Table A44.2: Deaths per 100,000 population, by age, sex and geographical area, 2002–2004.	196
Table A45.1: DVA income support beneficiaries, compensation pensioners, and holders of Repatriation Health Care cards, by age, 7 July 2007.	197

## LIST OF FIGURES

Figure 1.1:	Selected countries of birth of overseas-born Australians, by age, 2006	4
Figure 3.1:	Selected changes in marital status, by age group, 1996, 2001, 2006	11
Figure 3.2:	Living arrangements, by age, 2006	12
Figure 3.3:	Percentage of people who felt safe or very safe at home alone, by age and sex, 2006	12
Figure 6.1:	Participation rates for persons aged 45–64 and 55–64, by sex, October 1996 to October 2006	21
Figure 6.2:	Proportion of mature-age workers (age 45 and over), by industry	23
Figure 8.1:	Proportion providing unpaid assistance to persons living outside the household in last 4 weeks, by age and sex, 2006	28
Figure 9.1:	Carers and primary carers, by age and sex, 2003	33
Figure 10.1:	Active involvement in social or support groups in the last 12 months, by age and sex, 2006	36
Figure 12.1:	Composition of household net worth by age group of reference person, 2003–04	44
Figure 17.1:	Proportion with core activity limitation, by age and sex, 2003	60
Figure 18.1:	Burden (DALYs) in 65–74 year olds by broad cause group expressed as: (a) proportions of total, (b) proportions by sex, and (c) proportions due to fatal and non-fatal outcomes, Australia, 2003	64
Figure 18.2:	Burden (DALYs) in those aged 75 and over by broad cause group expressed as: (a) proportions of total, (b) proportions by sex, and (c) proportions due to fatal and non-fatal outcomes, Australia, 2003	55
Figure 19.1:	Prevalence of selected cardiovascular diseases, by age, 2004–05	66
Figure 19.2:	Hospital separations for selected cardiovascular diseases, by age, 2004–05	68
Figure 19.3:	Deaths from selected cardiovascular diseases, by age, 2004	69
Figure 20.1:	Incidence rates per 100,000 people for all cancers, prostate, breast, colorectal and lung cancers, by age and sex, 2003	71
Figure 21.1:	Age-specific prevalence of diabetes, 2004–05	74
Figure 21.2:	Prevalence of diabetes (self-reported), 1989–90 to 2004–05	74
Figure 21.3:	Rate of hospitalisation for persons with diabetic complications, by age, 2004–05	75
Figure 22.1:	Prevalence of emphysema/bronchitis and asthma, by age and sex, 2004–05	76
Figure 22.2:	Hospital separations for COPD and asthma, by age and sex, 2004–05	78
Figure 23.1:	Level of psychological current distress, by age, 2004–05	81
Figure 23.2:	Suicide rates, by age, 2005	81
Figure 24.1:	Prevalence of various forms of arthritis, by age, 2004–05	83
Figure 24.2:	Hospital separations for fall-related hip fractures, by age and sex, 2004–05	85
Figure 26.1:	Prevalence rates of visual impairment and its causes, by age, 2004	91
Figure 29.1:	People aged 65 and over living in households, whether need for assistance was met, by type of assistance required, 2003	102
Figure 31.1:	Government expenditure on pharmaceuticals by age group, as a proportion of total government expenditure on pharmaceuticals, 2005–06	111

Figure 32.1: Trends in service provision in private general practice among patients aged 65 and over, 1993–94 to 2003–04	113
Figure 33.1: Average length of stay in hospital per hospital separation, 2004–05	115
Figure 33.2: Actual (2004–05) and projected (2010–2030) annual number of separations and patient days, by age	116
Figure 37.1: Number of Community Aged Care Packages, 1992–2006.	126
Figure 37.2: Length of time with a CACP, separations, 2005–2006.	127
Figure 38.1: Length of time on EACH package, separations 2005–06	129
Figure 39.1: Occupied residential aged care respite bed-days per 1,000 persons in stated population, for financial years 1991–92 to 2005–06	132
Figure 40.1: Residents in aged care by age and sex, 30 June 2006	134
Figure 41.1: Age- and sex-specific usage rates of residential aged care, 30 June 2000, 2003 and 2006.	138
Figure 41.2: Average completed length of stay, separations of permanent residents, 2001–02 to 2005–06.	140
Figure 42.1: Age and sex profile of Indigenous and non-Indigenous Australians, 2006	143
Figure 42.2: Age-specific rates of profound or severe core activity limitation, persons aged 55 and over in non-remote areas, 2002	144
Figure 43.1: Older people, by age, sex and cultural and linguistic background, 30 June 2006	146
Figure 44.1: Older people, by age, sex and geographical area, 30 June 2006	149
Figure 44.2: Death rates per 100,000 people, by age, sex and geographic area, 2002– 2004	150
Figure 45.1: DVA disability pension recipients, income support beneficiaries, and treatment card holders, by age and sex, June 2007	155

