

Health Series  
Number 23

# **Health Status of Older People in the ACT**

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**October 1999**

## ACKNOWLEDGEMENTS

This publication has drawn on the expertise and knowledge of several individuals and sections within the Department of Health and Community Care, ACT Community Care, Department of Urban Services and Australian Bureau of Statistics.

The authors are particularly grateful to colleagues in the Department of Health and Community Care including staff of the Epidemiology Unit for their support, advice and patience. They are also very grateful to Mr Pat Stakelum, the ACT Demographer who has provided invaluable expert advice; the Health Outcomes Policy and Planning Group; the Medical Records Departments in each hospital; the Information Management Section, and the Communications and Marketing Section for publishing assistance. Thanks must also be given to Mr Jim Purcell and the ACT Council on the Ageing for their assistance and permission to use the International Year of Older Persons' logo.

ÓAustralian Capital Territory, Canberra 1999

ISSN 1325-1090

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Published by Publications and Public Communication for the ACT Department of Health and Community Care's Epidemiology Unit and printed by the Authority of the ACT Government Printer.

200 - 12/98 A4 (99/5368)

Suggested citation: Kee C, Bodilsen G (1999) *Health status of older people in the ACT*, Epidemiology Unit, ACT Dept of Health and Community Care: Health Series No 23, ACT Government Printer, ACT

The ACT Government Homepage address is: <http://www.act.gov.au>

This publication is on the Internet at: <http://www.health.act.gov.au>

# Health Status of Older People in the ACT

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# Health Status of Older People in the ACT

## 1. Executive summary

The United Nations designated 1999 as the International Year of Older Persons and defined “older persons” as people aged 50 years or more. This is a year for celebrating the broad contributions of older people and for focusing on the development of quality services and strategies appropriate to the needs of an ageing population.

### Demography

- The ACT and Australian populations are ageing. While other states will roughly double their proportion of people aged 65 or more, the ACT proportion will nearly triple by 2051.
- The median age of ACT people will increase from 32.1 years in 1998 to 39 years in 2013.
- In 1996, over half of ACT residents aged 55 or more were born in Australia. Between 20% and 25% were born in non-English speaking countries.
- In 1996, about 25% of people over 50 years received less than \$160 per week and 40% received between \$160-\$299 per week.
- In 1998, in the age group of 55-59 years, 58% of males and 35% of females were employed full-time while 14% of males and 20% of females worked part-time.
- People in the ACT have higher levels of skills and education in the workforce than nationally.
- The average age of retirement from full-time work in 1997 was 49 years (48 years nationally). While 1 in 5 males and 1 in 10 females retired early, most retired at the compulsory age.
- In 1996, ACT women over 50 years of age tended to hold substantially lower educational qualifications than men, especially in the oldest groups.
- Living arrangements for men and women to the age of 65 years is similar, but varies in later years. Women are more likely to live alone in their old age.

### General health indicators

- The ACT Quality of Life Project found that, while young people had significantly better physical functioning than older people, people 65 years and over were significantly more likely to have good mental health than their younger counterparts.

The National Health Survey 1995 showed that:

- Seventy five per cent of ACT residents 50 years old or more rate their health as good to excellent (71% for Australia generally) and only 7% rate their health as poor (8% in Australia). For the general ACT population, 86% rated their health as good to excellent and 3% as poor.
- More ACT residents 50 years old or more rated their drinking of alcohol to be at a hazardous or harmful level than Australian people in that age range, but more undertook moderate or vigorous exercise.
- There were less ACT residents who were underweight, more who were of acceptable weight, and more who were overweight or obese, than for Australia generally. The proportion of people with acceptable weight decreased with age, as the proportions who were overweight or obese increased.
- More older people in the ACT reported hypertension than nationally.
- Few older people experience long-term asthma or allergies, but they often have sight problems and to a lesser extent, hearing problems. Hayfever, sinusitis and arthritis are also quite prevalent.

- Compared to ACT people generally, a higher percentage of older people reported experiencing myopia, sight problems, hypertension, and hearing problems than the general ACT population. Older people reported less hayfever, asthma, and allergies than the general ACT population.
- A lower proportion of older people reported hospitalisations than the general population, but higher proportions of older people reported visiting doctors and taking medications.

### **Mortality**

- In 1997, there were 1,137 deaths (545 males, 592 females) in people over 50 years of age. This was 85% of all deaths for that year. Male age specific death rates were higher than female rates.
- Major causes of death were diseases of the circulatory system, nervous system and respiratory system, neoplasms, and external causes of injury and poisoning. People in the oldest age groups also died more frequently from mental disorders and diseases of the nervous and sense organs.
- In 1996, there were 5 deaths and in 1997, there were 4 deaths of Aboriginal and Torres Strait Islander people in the ACT. Five of these deaths involved people aged 50 years or more.

### **Life expectancy**

- ACT males have higher life expectancy (77.1 years) than other Australian males. A slightly increasing trend in life expectancy for ACT males is evident over the last 5 years.
- For ACT females, no increases in life expectancy are evident in the last 5 years. At 81.3 years, ACT females' life expectancy from birth for 1997 was equal to the national average.

### **Disability, Ageing and Carers Survey 1998**

Results showed that:

- Approximately 53,100 people in the ACT (17.2% of the population) had a disability and 53,000 had an impairment or long term condition which restricted their daily lives.
- Of those with a disability, 82.5% had specific restrictions in core activities such as schooling and employment. These proportions were similar to those for Australia. Nationally, slightly more males than females lived with a disability (19.6% vs. 19.0%). In the ACT, more females than males lived with a disability (17.7% vs. 16.6%).
- The rate of disability increased with age.
- There were 14,000 ACT people aged 65 years or more who had a disability (59% of that group). Of these people, 10,300 (74%) needed assistance with at least one activity.
- Of the 9,600 people over 65 years *without* disabilities, only 1,600 needed assistance.
- Of those (with and without disabilities) needing assistance, 63% had their needs met fully.
- There were 43,100 ACT residents (53% female) who assisted people with disabilities and/or who were aged. There were 5,200 primary carers, 83 percent of whom were females.
- In Australia, grandmothers care for 25 to 50 per cent of their working children's children.
- In Australia, over 90% of carers over 60 years are spouses of those for whom they care.

### **Medications**

The National Health Survey 1995 asked respondents about the medications they took.

- In the ACT, results were similar to national results.
- The proportion of people over 50 years taking medication was 78%; over 55 years was 82%; over 65 years was 85%; and the proportion over 75 years was 87%.

## **Hospital utilisation**

- In the 1997-98 year, 32,746 people aged over 50 years separated from ACT hospitals (42% of all separations). Males accounted for 53% of separations for older persons.
- Male separations outnumbered female separations until the age of eighty. This is significant, given that there are more females than males in the older age groups, particularly after 65 years.
- The most common causes for hospitalisation of older people were diseases and conditions of the circulatory system, neoplasms, and disorders and conditions of the digestive and musculoskeletal systems.
- Males tended to stay in hospital longer than females except for mental disorders.
- The major causes for high length of stay for older people were mental disorders, cerebrovascular disease, diabetes mellitus, bronchitis, emphysema, and infectious and parasitic diseases.
- A small study of Indigenous people over 50 years in the ACT found that one third of respondents reported smoking, but two thirds did not drink alcohol at all. In comparison, the National Health Survey 1995 found that 16 per cent of people over 50 years smoked and 38 per cent of people over 50 years drank alcohol.

## **Major causes of morbidity and mortality**

### Cardiovascular diseases

- In 1997, the ACT had 512 deaths from circulatory diseases, 495 of these people were over 50 years. In that year, 162 males and 102 females died due to ischaemic heart disease, 153 of the males and all the females were aged over 50 years. For cerebrovascular disease (including stroke), there were 54 male and 74 female deaths, all these people were aged over 50 years.
- Older people had higher proportions of hospital separations with principal diagnoses of circulatory disorders. Before 75 years of age, smaller proportions of women were admitted for circulatory disorders, but after 75 years, proportions for men and women were about equal.
- In 1997-98, there were 3,499 separations for known ACT residents with a principal diagnosis of circulatory disorder. Approximately 81% of ACT residents with these diagnoses were aged 50 years or more. For ACT residents, the ALOS for all persons with a principal diagnosis of cardiovascular disease was 5.7 days, but 6.1 days for those over 50 years.

### Cancer

- There were 367 deaths due to cancer in the ACT in 1997. Of these, 319 were for people over 50 years (155 males, 164 females).
- Major types of cancer causing death in people over 50 years were cancers of trachea, bronchus and lung (17%), and cancer of the colon (12%). Breast cancer caused 8.5% of all cancer deaths after age 50, (16.5% of female cancer deaths after age 50). Cancer of the prostate accounted for 5% of all cancer deaths after age 50 (10% of male cancer deaths after age 50).
- Before age 55, separation rates for females exceeded those for males. After 55 years of age, separation rates for males exceeded those for females.
- In 1997-98, 1,968 hospital separations for malignant neoplasms were for known ACT residents. Seventy-three per cent of these were for people aged 50 years or more.
- The ALOS for all ACT residents with a principal diagnosis of cancer was 6.0 days, while those aged over 50 years had an ALOS of 6.6 days.

### Injury

- Although males tend to die from injuries at a much higher rate than females in the younger age groups, female deaths for these causes outnumber males in older age groups, especially after 75 years. In 1997, 10 males and 15 females over 55 years died from injuries. Ten died from accidental falls and 4 due to suicide.

- There were 1206 male and 1316 female hospital separations with external causes of injury in people 55 years or more in 1997-98. Almost a third of male separations (30%) and a half of female separations (47%) were in people over 75 years of age.
- Major causes of injury were falls; attempted suicide; reactions to surgical and medical procedures; and adverse effects to medical and biological substances used therapeutically.
- Falls accounted for 619 hospital separations in the 50 years and over group (191 male, 428 female). The ALOS for these separations was 13.5 days for males and 13.2 days for females.

#### Mental illness

- Between 1993 and 1997, 113 people died of mental disorders. The majority of these people were elderly, for whom most deaths were due to senile and presenile organic psychotic conditions. In 1997, 3 males and 9 females over 65 years died from mental disorders.
- There were 363 hospital separations for people over 55 years with mental disorders in 1997-98 (156 males, 207 females), accounting for 22% of all separations for mental disorders. Only 18 males and 22 females were hospitalised for dementia.
- Mean length of stay for mental disorders for ACT residents over 50 years was 15.2 days.
- Separations for senile and presenile organic psychoses increased substantially with age.
- The National Health Survey 1995 found that depression was more prevalent in the ACT than nationally.

#### Diabetes mellitus

- In 1997, the ACT had 27 deaths (11 males, 16 females) due to diabetes mellitus, 25 of these people were over 55 years. Between 1993-97, the median age at death was well over 65 years.
- The National Health Survey 1995 estimated that between 4,300 and 6,000 ACT residents had diabetes. Very few of those people were under 25 years of age.
- There were 3,028 separations from ACT hospitals with diabetes mellitus as a principal or secondary diagnosis in 1997-98. Rates for these diagnoses increased substantially with age.
- In almost all years, rates for males were higher than rates for females in older people.
- The ALOS for diabetes for all patients was 4.1 days. For those over 55 years, it was 4.7 days.

#### Respiratory disorders

- From 55 years of age, separation rates for principal diagnoses of respiratory disorders began to exceed rates for the whole population. Male age specific rates usually exceeded female rates.
- Hospital separation rates for pneumonia and influenza increased substantially with age. In most years, separation rates for males over 75 years were higher than rates for females.

#### Asthma

- There were 5 asthma deaths in the ACT in 1996 and 6 in 1997 (0.4% of all ACT deaths). In 1996, all deaths were in people over 50 years, but in 1997 only 3 were in older people.
- Between 1993 and 1998, rates for separations with a principal or secondary diagnosis of asthma tended to rise with age and were usually higher for males than females.
- In 1997-98, there were 441 separations for known ACT residents with a principal diagnosis of asthma, 95 (21.5%) of whom were aged 50 years or more. A further 407 separations were for ACT residents aged 50 or more with a secondary diagnosis of asthma.
- The ALOS of separations with a principal diagnosis of asthma was 6.6 days for males and 7.2 days for females. For ACT residents, ALOS was 5.9 days for males and 7.4 days for females.
- The National Health Survey 1995 estimated that 34,960 ACT residents had asthma as a long-term condition. Approximately 11% of these people were 50 years or more (1,800 males and 2,000 females). Older people had lower age-sex specific rates for chronic asthma than the total ACT population.



## 2. Introduction

The United Nations designated 1999 as the International Year of Older Persons (IYOP) and defined “older persons” as people aged 50 years or more. The IYOP encourages all people and their governments to focus on the contributions made by older people. It is a time to recognise the diverse aspirations, abilities and needs of these people and to promote a climate for structured planning to ensure that their needs are met now and in the future.

It is a year for celebrating the broad contributions of older people to families, the workforce, the community and to the economy. The ACT Government intends using the IYOP to focus on the development of quality services and strategies appropriate to the needs of an ageing population. As part of that focus, the ACT Department of Health and Community Care is developing a profile of the health needs of older people. This report constitutes the epidemiological basis of that profile which will inform planners and service deliverers in their pursuit of appropriate services to maximise both community and individual health and well-being. It will assist them in considering how to direct medical and health expenditure and research in ways that encourage less physical dependence and healthier ageing. It will also aid development of policies for providing care for the small, but important group, of frail aged.

The publication details available information on the demographics of older people in the ACT, their mortality and morbidity profiles, health indicators and risk factors affecting them. It also examines the role of carers, and provides a summary of major ACT services for older people.

### *Data sources & limitations*

Where possible, data is presented for age groups from 50-55 years through to 75 years and over. This allows for differences due to life cycle changes (working age to retirement to elderly). Data used in the publication are from administrative data collections, national and ACT surveys, and research into current trials and studies. Since the ACT is a small territory, national surveys often only sample small numbers of ACT residents, which makes analysis of results difficult and generalisations from the results often impossible.

The ACT Department of Health and Community Care has commissioned an ACT specific survey of older people and their health, which is currently being administered. Results from this rich source will be available mid 2000.

### **2.1 National Strategy for an Ageing Australia**

The Commonwealth Government has announced the development of a national strategy which will take a whole of government approach. It aims to:

- Promote and inform a consideration by the Australian community of the likely impacts of, and possible responses to, population ageing;
- Consider the impacts of, and possible policy responses to, ageing;
- Address key issues raised by the community concerning independence, self-provision, world class care, healthy ageing, attitudes, lifestyle and community support; and
- Advise the government on short, medium and long-term policy responses to population ageing as part of a co-ordinated national framework.

The strategy recognises the opportunities that exist for making the ageing experience more positive on individual and community levels. It acknowledges that, as for other people, older people vary in their life experiences, aspirations, family relationships, and cultural backgrounds.

During 1999, the Strategy Ministerial Reference Group will release discussion papers, continue consultations and develop the final strategy.

## **2.2 ACT Strategy**

The ACT Department of Health and Community Care is developing the ACT Aged Health Care Services Strategic Plan to complement the national plan. The ACT Plan will be specifically aimed at ensuring access to appropriate health services for our growing older population. The process of developing the strategic plan will involve extensive community consultation.

To assist the process and ensure ongoing consultation, the ACT Aged Health Care Services Advisory Council has been established. The Council will provide advice to the Minister of Health and Community Care on matters concerning planning and provision of health care services for the aged in the ACT. It will comprise seven members representing the older community, carers, family members and people with expertise and experience concerning health care services for aged people.

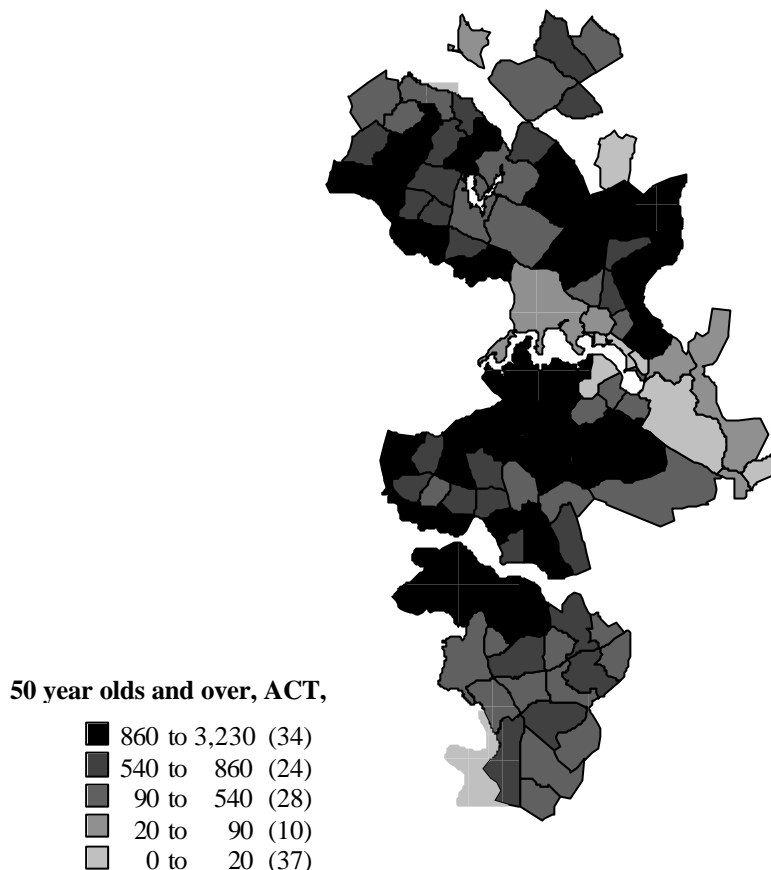
## **3. Demographic profile**

### **3.1 The ageing population**

#### **Older population spread in the ACT**

The population of older people is not evenly distributed throughout the Territory (refer Figure 1). Earlier established suburbs tend to have higher proportions of older people living in them. As redevelopment occurs, the age mix will most likely change. The major areas where high proportions of older people live include the inner northern and southern suburbs. The 1996 Census recorded the highest proportions of people over 65 years in Deakin (21%), Red Hill (19%), Campbell (17%), Ainslie (17%), Narrabundah (16%) and Yarralumla (15%). To some extent, these proportions reflect the concentration of nursing homes, hostels and retirement villages. Outer Belconnen, Gungahlin and Tuggeranong have low proportions of older people.<sup>1</sup>

**Figure 1: Distribution of persons aged 50 years or more in the ACT, 1996**

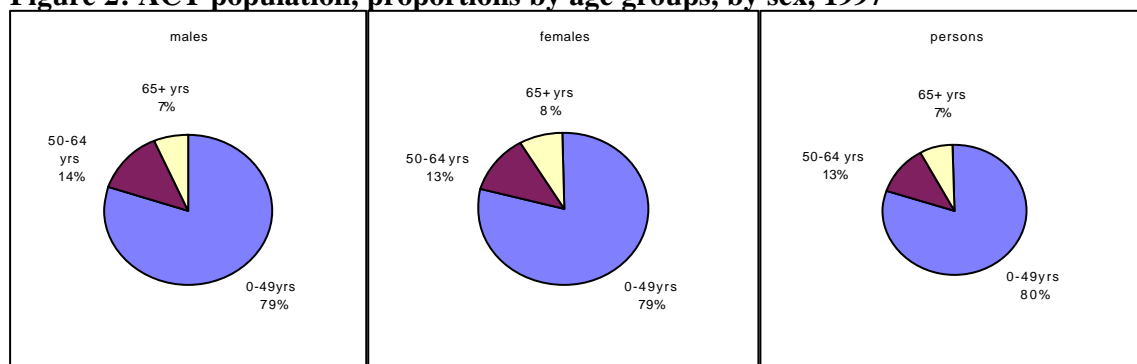


Source: ABS, unpublished data

The median age for the ACT and Australia is increasing quite rapidly. This is reflected by the population composition. In 1997, the ACT has 22 percent of its population aged 0-14 years, 21 percent over 50 years and only 7 percent aged 65 years and over (In 1998 the proportion of people over 65 years was 7.8%). The ACT has a higher proportion of 20-45 year olds, especially 20-24 year olds, but relatively fewer people in the older groups than Australia (refer Figure 2).<sup>2</sup>

Although most of the ACT population is under 50 years of age, while other states will roughly double their proportion of people aged 65 or more, the ACT proportion is expected to nearly triple between now and 2051.

**Figure 2: ACT population, proportions by age groups, by sex, 1997**

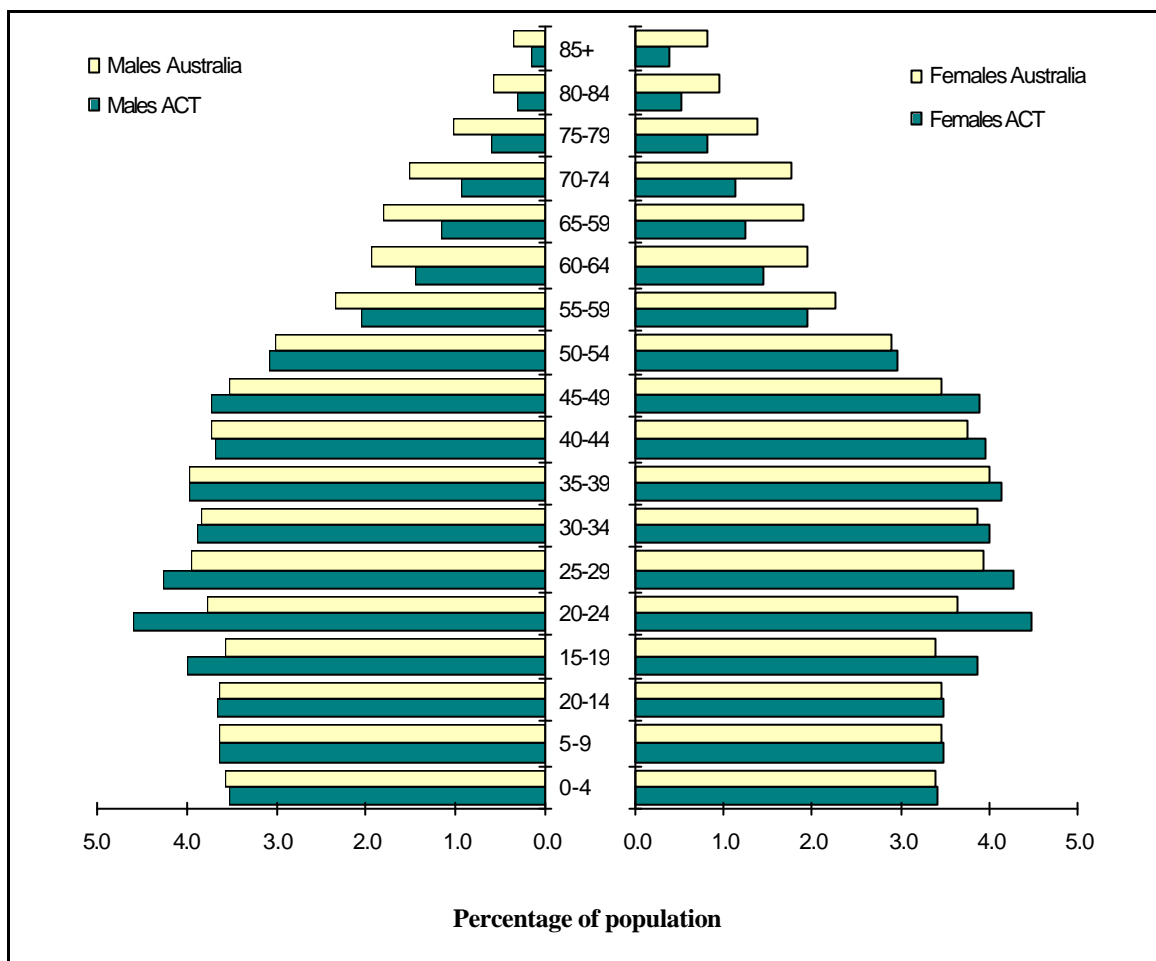


Source: ABS, *Population by Age & Sex, ACT, 1998*, Cat. No. 3235.8

In 1997, there were 63,916 people over 50 years and 8,884 people over 75 years in the ACT.

The distribution of the population in the ACT is different to that of Australia, as can be seen from Figure 3. The ACT population has higher proportions of people in the younger age groups from 0 to 49 years. In the older age groups, from 55 years and on, the ACT has smaller proportions than the general Australian population. In both the ACT and Australia generally, the majority of people aged greater than 65 years are women, and the preponderance of women becomes more marked as age increases.

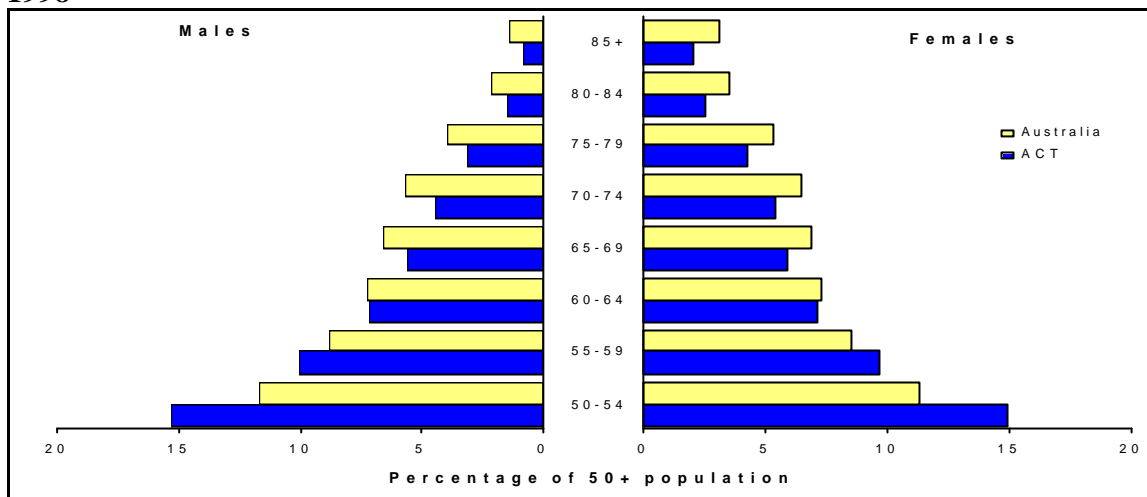
**Figure 3: Estimated age distribution of the ACT & Australian populations for males & females, 30 June 1997**



Source: ABS, *Population by age and sex June 1992 June 1997*, Catalogue No. 3201.0

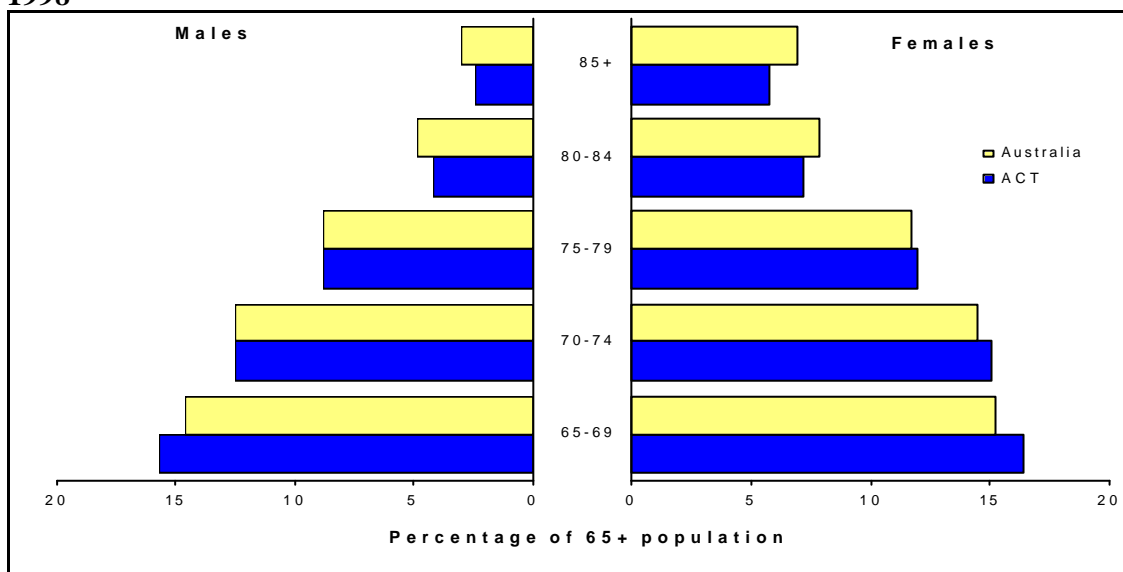
The following population pyramids show the age spread for older ACT residents in 1998, taking the age-sex population as a percentage of people over 50 years (Figure 4) and over 65 years (Figure 5).

**Figure 4: Population distribution by age & sex, 50 yrs & over, ACT & Australia, June 1998**



Source: ABS, *Population by age and sex, June 1997 to June 1998*, Catalogue No. 3201.0

**Figure 5: Population distribution by age & sex, 65 yrs & over, ACT & Australia, June 1998**



Source: ABS, *Population by age and sex, June 1997 to June 1998*, Catalogue No. 3201.0

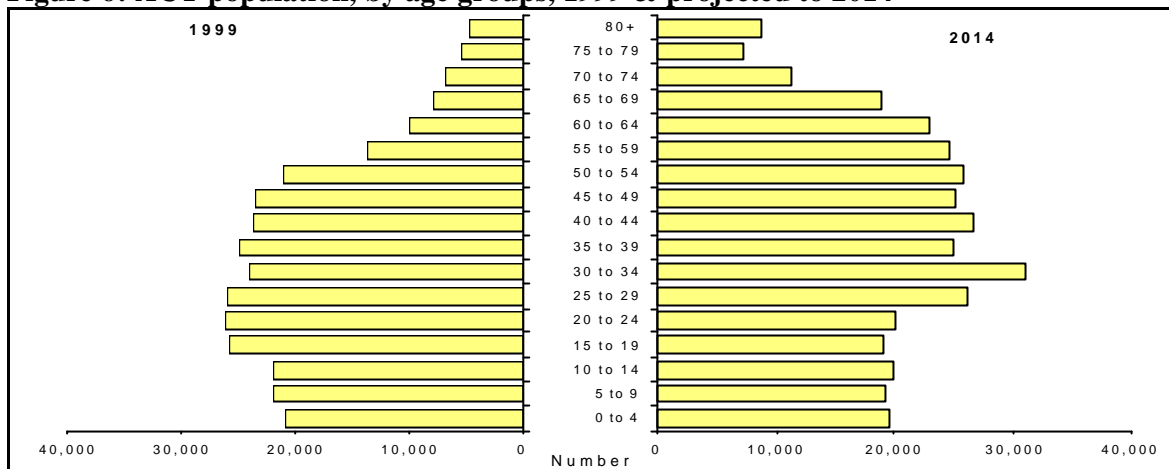
### Population projections

The median age of ACT people is forecast to increase steadily from 32.1 years in 1998 to 39 years in 2013.

The following two figures show how the number and proportion of people over 50 years is projected to rise in the next 15 years. In 1999, the ACT population of people over 50 years was 69,800 (22.6% of the total ACT population) and those aged 65 and over was 25,000 (8.1%).

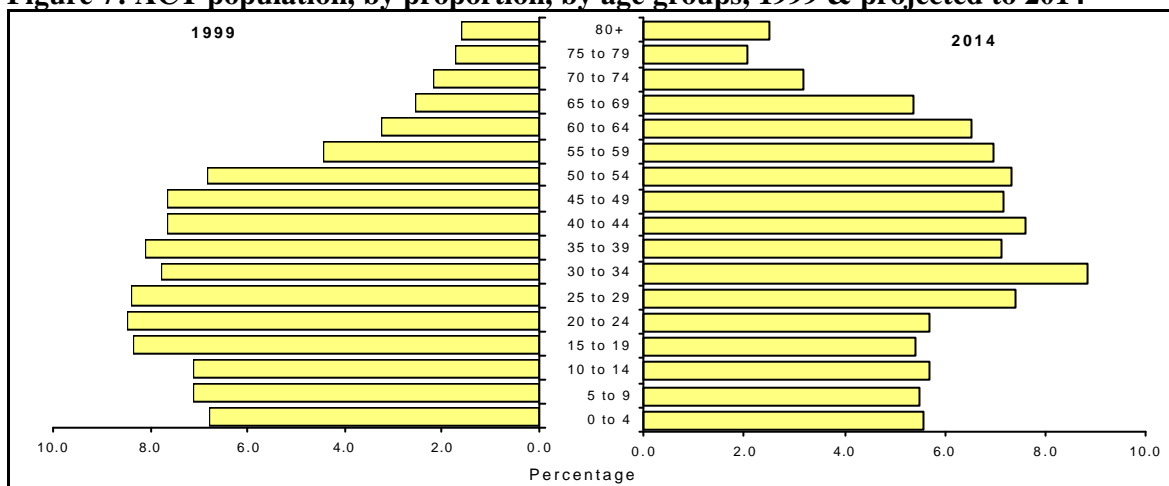
Demographers estimate that by 2014, the 50 years and over group will have 119,900 people (34.0% of the total ACT population) and the 65 and over group will have 46,500 (13.1%).<sup>3</sup>

**Figure 6: ACT population, by age groups, 1999 & projected to 2014**



Source: Demographics ACT, Dept of Urban Services

**Figure 7: ACT population, by proportion, by age groups, 1999 & projected to 2014**

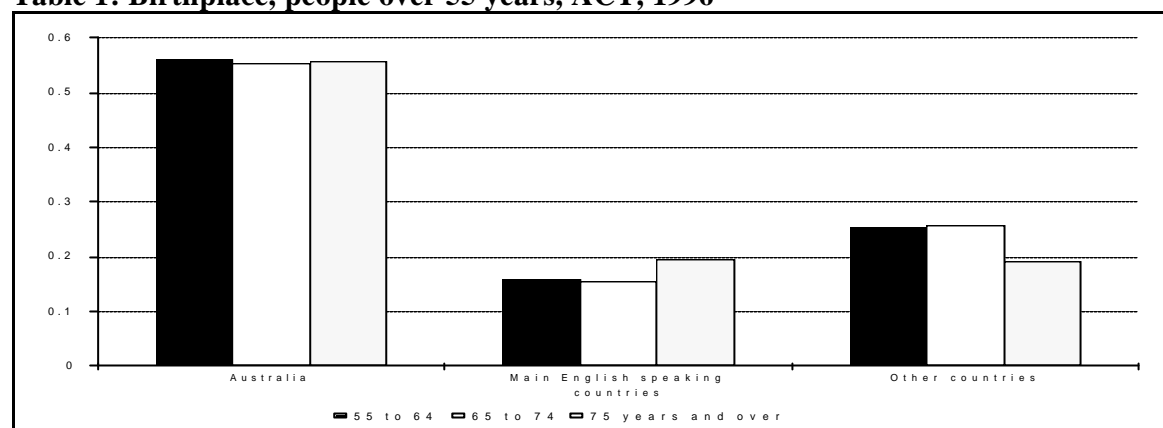


Source: Demographics ACT, Dept of Urban Services

### 3.2 Birthplace

The 1996 census recorded that over half of ACT residents aged 55 or more were born in Australia. Between 20% and 25% were born in non-English speaking countries.

**Table 1: Birthplace, people over 55 years, ACT, 1996**



Source: Demographics ACT, Dept of Urban Services

The 1996 census recorded that only 476 people did not speaking English at all. Most of these people were over 65 years of age. Another 1,617 who did not speak English well.

### 3.3 Marital status

Marital status may give some indication of social and other support and companionship, although many other sources of these, such as extended family, friends, and interest groups, are probably utilised by most people.

**Table 2: Marital status, by age group, ACT, 1996**

Age groups	Married		Separated or divorced		Widowed		Never married		Total		Total persons
	male	female	male	female	male	female	male	female	male	female	
50-64	14586	12530	2406	3166	335	1359	913	729	18240	17784	36024
65-74	4832	3758	533	726	448	2237	251	247	6064	6968	13032
75+	2020	1304	129	254	700	3316	108	186	2957	5060	8017
Total	21438	17592	3068	4146	1483	6912	1272	1162	27261	29812	57073

Source: ABS, *Social & Housing Characteristics for SLAs, ACT*, Catalogue No. 2015.8

The proportion of people married decreases with age. The number of people widowed increases with age, particularly for women (24% of men and 66% of women aged 75+ years are widowed).

### 3.4 Socioeconomic status

Chronological ageing is a rough indicator of needs for services. Other measures include social roles, community involvement, quality of housing, education and income. It is well recognised that socioeconomic factors affect the health of individuals.





### **3.4.2 Participation in the workforce**

In August 1998, in the age group of 55-59 years, 58 percent of males and 35 percent of females were in full-time employment. Only 14 percent of males and 20 percent of females worked part-time.<sup>6</sup>

People in the ACT have higher levels of skills and education in the workforce than Australians generally. This is clearly shown, especially for males, when examining work choices. In August 1998 in the ACT, the major occupations for males aged 55-59 years were the professions (1,350 men or 28%), associate professions (18%), management (18%) and trades (16%). Nationally, the major occupations were trades (20%), management (17%) and professions (16%). For ACT females in this age group, major occupations were professions (1,100 females or 32%), elementary clerical and sales (26%) and intermediate clerical and sales (16%). Nationally, major occupations were intermediate clerical and sales (25%), professions (20%), and advanced clerical and service work (12%).

For people aged 60-64 years in the ACT, 37 percent of male employment and 44 percent of female employment was in the professions. The highest proportions nationally were for management (18% of male employment) and intermediate clerical and sales (22% of female employment).

Part-time work is a small, but increasing option for older people in the ACT. At the time of the 1996 Census, approximately 950 males and 1,300 females aged 55-59 worked part-time. Main occupations for males were trades and professions. For females, main occupations were professions and various levels of clerical, sales and services work.

The average age of retirement from full-time work in November 1997 was 49 years (48 years nationally).<sup>7</sup> Although nearly 1 in 5 males and 1 in 10 females opted for early retirement, most people over 45 years retired because they had attained the compulsory age of retirement.

### **3.4.3 Unemployment**

Unemployment levels for older people in the ACT are low. For females over 55 years it is zero and for males it is approximately 3 percent (the male proportions fluctuate considerably and, given the small numbers, are difficult to measure).<sup>8</sup>

### **3.4.4 Education**

The following tables show details of the highest educational qualifications achieved by ACT people over 50 years of age at the time of the Census in 1995. Generally, females were considerably less qualified than males, especially in the oldest groups. This pattern reflects former education and social policies.

**Table 3: No. & proportion of males over 50 yrs, by age group & highest qualification, ACT, 1995**

Highest qualification	Age group (years)							
	50-59		60-69		70-79		80 +	
	no.	%	no.	%	no.	%	no.	%
Higher degree	1015	7.07	217	2.72	169	3.63	0	0.00
Post graduate diploma	1399	9.75	134	1.68	270	5.79	0	0.00
Bachelor degree	2535	17.66	1052	13.17	809	17.36	0	0.00
Undergraduate diploma	581	4.05	484	6.06	0	0.00	0	0.00
Associate diploma	1006	7.01	695	8.70	170	3.65	0	0.00
Skilled vocational	3398	23.67	2472	30.96	747	16.03	301	31.65
Basic vocational	190	1.32	267	3.34	0	0.00	0	0.00
Educational qualification								
Not adequately described	204	1.42	276	3.46	316	6.78	264	27.76
No higher qualifications	4026	28.05	2388	29.91	2180	46.77	386	40.59
<i>Total</i>	<i>14354</i>	<i>100.00</i>	<i>7985</i>	<i>100.00</i>	<i>4661</i>	<i>100.00</i>	<i>951</i>	<i>100.00</i>

Note: These estimates are subject to sampling variability.

Source: ABS, *The National Health Survey 1995*, Confidentialised unit record

**Table 4: No. & proportion of females over 50 yrs, by age group & highest qualification, ACT, 1995**

Highest qualification	Age group (years)							
	50-59		60-69		70-79		80 +	
	no.	%	no.	%	no.	%	no.	%
Higher degree	301	2.23	181	2.48	203	2.94	102	3.47
Post graduate diploma	246	1.82	80	1.10	111	1.61	0	0.00
Bachelor degree	2203	16.31	266	3.65	582	8.43	251	8.54
Undergraduate diploma	686	5.08	264	3.62	441	6.38	104	3.54
Associate diploma	418	3.09	281	3.85	337	4.88	0	0.00
Skilled vocational	1565	11.59	1016	13.93	758	10.97	117	3.98
Basic vocational	596	4.41	446	6.11	192	2.78	213	7.24
Educational qualification								
Not adequately described	337	2.50	0	0.00	0	0.00	129	4.39
No higher qualifications	7154	52.97	4761	65.26	4283	62.01	2024	68.84
<i>Total</i>	<i>13506</i>	<i>100.00</i>	<i>7295</i>	<i>100.00</i>	<i>6907</i>	<i>100.00</i>	<i>2940</i>	<i>100.00</i>

Note: These estimates are subject to sampling variation.

Source: ABS, *The National Health Survey 1995*, Confidentialised unit record

Many older people enjoy educational pursuits. The University of the Third Age offers the ACT's older people the opportunity to continue their education and develop social networks with people with common interests. It has well over 1,700 members and offers over 140 courses at minimal charge.

### 3.4.5 Mobility

Most older people continue to live at the same address. The 1996 Census showed that 90 percent of people 55 years or more lived in the same residence as one year previously, 3.4 percent moved to another suburb in the ACT, 1.4% moved within the one suburb. Another 2.5 percent moved into the ACT from interstate or overseas.

The pattern is different for Aboriginal and Torres Strait Islanders however. Approximately 63 percent of the ACT's Indigenous people moved within the 5 year period (1986-91). Of those who moved, 94 percent only moved within the same statistical local area.<sup>9</sup>

### 3.4.6 Housing and living arrangements

Living arrangements for men and women to the age of 65 years is similar, but varies in later years. Women tend to live longer than men do, and tend to marry men older than themselves. Therefore, women are more likely to live alone in their old age.<sup>10</sup> The following table shows the widening gap between males and females as they age, in the proportions that live alone.

**Table 5: Living arrangements, people aged over 50 yrs, by sex, ACT, 1995**

Living arrangements	Age group (years)							
	50-59		60-69		70-79		80 +	
	n	%	n	%	n	%	n	%
<b>Males</b>								
living alone	1247	8.88	1819	22.82	1312	27.85	188	18.29
not living alone	12792	91.12	6161	77.29	3399	72.15	840	81.71
<i>Total</i>	<i>14039</i>	<i>100.00</i>	<i>7971</i>	<i>100.00</i>	<i>4711</i>	<i>100.00</i>	<i>1028</i>	<i>100.00</i>
<b>Females</b>								
living alone	1445	10.85	2866	36.11	2727	48.38	1801	60.68
not living alone	11872	89.15	5069	63.87	2756	48.89	1167	39.32
<i>Total</i>	<i>13317</i>	<i>100.00</i>	<i>7936</i>	<i>100.00</i>	<i>5637</i>	<i>100.00</i>	<i>2968</i>	<i>100.00</i>

Note: These estimates are subject to sampling variation

Source: ABS, *The National Health Survey 1995*, Confidentialised unit record data

#### *Low Care Facilities*

There are 15 low care facilities (formerly known as hostels) in the ACT, 3 of which target people from Croatian, Italian and Greek backgrounds. There are also 7 high care facilities (formerly known as nursing homes).

### 3.4.7 Participation in the community

The Disability, Ageing and Carers Survey 1998 (Australian Bureau of Statistics) canvassed community participation by people over 65 years. It found that 92 percent of people participated in activities outside their homes such as visiting family and friends (84%), going to a restaurant or club (69%), attending church activities (39%) and voluntary activities (25%). Ninety-seven percent also participated in community activities in their own homes such as receiving visitors (90%), telephone conversations with friends (94%), voluntary work (20%) and craft work (16%). ACT residents participated in community activities at a higher rate than their Australian counterparts.

### 3.5 Aboriginal and Torres Strait Islander people

In the ACT less than three percent of Indigenous persons were aged greater than 55 years compared to more than 12 percent in the total ACT population. Aboriginal and Torres Strait Islanders over 50 years comprise about 5 percent of Indigenous people in the Territory. The age-structure of Indigenous persons in the ACT is representative of the total Australian Indigenous population.

**Table 6: Aboriginal and Torres Strait Islanders over 50 years, ACT, 1996**

Age group	Males	Females	Total
0-49 yrs	1377	1377	2754
50-64 yrs	60	55	115
65+ yrs	12	14	26
Total	1449	1446	2895
Total 50+ years	72	69	141

Source: ABS, 1996 Population Census

It is interesting to note that Indigenous females do not outnumber Indigenous males in the older age groups to the degree which occurs in the non-Indigenous population (Refer 3.1).

### 3.6 Emerging issues

- Although the ACT has a comparatively young population, there are signs that it is ageing at a rate which will soon affect the mix of services, leisure activities and community facilities needed.
- The increased desire and encouragement for people to remain at home rather than going into care/share accommodation, will necessitate provision of appropriate supportive accommodation options.
- In line with national and international trends, the ACT has a low and falling fertility rate balanced by a growing aged population. This will change the mix of people working and those retired and will have implications on resources (human and financial) available.
- Due to a trend of expansion of superannuation coverage in the ACT, it is likely that the proportion of people with superannuation support after retirement will increase (especially for females).<sup>11</sup> The fact that a number of public servants are taking redundancy packages may affect the proportion of people with superannuation. Those who do not invest their packages wisely may become dependent on government and community support in their old age.
- Although only 20 percent of Australians use aged care services at any time, demand may increase if strategies towards healthy ageing are not extended.<sup>12</sup>
- Although older people experience more chronic disease than other age groups, many of the health problems associated with old age may be prevented or postponed through health interventions, health promotion, prevention measures and life style changes.<sup>13</sup> This has implications for policy development and service provision.

## 4. General health indicators

### 4.1 Health status

Ill health is no longer a defining characteristic of ageing. Most older people live healthy, active lives. They enjoy a wide range of occupations, hobbies and activities. Frames of reference for examining the health of older people include:

- ◇ Ageing is a *normal* process that does not always result in mental deterioration, or thwart a person's capacity to cope successfully with life's challenges.
- ◇ Older people are much more heterogeneous than homogenous. Their abilities differ greatly.
- ◇ The onset, duration and level of any dysfunction for these, as for other people, is different for each individual.
- ◇ Older people do not change radically just because they are older. Personality remains fairly constant.<sup>14</sup>

The following table relates to *all* ACT residents, not just those over 50 years. Details specific to older residents where available, follow it. The table shows ACT residents to have higher incidence of cerebrovascular diseases (stroke), be more at risk of poor health from medium to excessive alcohol drinking (males and females) and from obesity and overweight (females) than other Australians. They do however, practice fewer risk behaviours in other areas.

**Table 7: Selected health indicators, ACT compared to Australia, 1995 & 1996**

Indicator	ACT	Australia	ACT compared with states & NT.
<i>Health status (1996)</i>			
Male life expectancy at birth	76.6	75.2	highest
Female life expectancy at birth	81.6	81.1	highest
Crude death rate (per 1,000)	4.2	7.0	lowest
Standardised death rate (per 1,000)	6.1	6.4	lowest
<i>Cause of death (1996)</i>			
Coronary heart disease (standardised rate per 100,000)	134	145	lowest
Cerebrovascular disease (standardised rate per 100,000)	69	61	highest
Cancer (standardised rate per 100,000)	171	177	equal lowest with SA
Road accidents (standardised rate per 100,000)	9	11	equal lowest w. NSW & Vic.
Suicide (standardised rate per 100,000)	12	13	equal lowest with WA & SA
<i>Risk factors (1995)</i>			
Medium/high risk drinkers (18 years and over) , males%	12.2	10.6	second highest
Medium/high risk drinkers (18 years and over) , females%	7.1	6.1	highest
Current smokers (18 years and over) , males %	23.6	27.3	lowest
Current smokers (18 years and over) , females %	19.3	20.3	second lowest
Overweight/obese, (18 years and over) , males %	63.1	63.0	on par, Aust. average
Overweight/obese, (18 years and over) females %	50.4	46.5	second highest

Source: ABS, *Australian Social Trends 1998*, Catalogue No. 4102.0

Most older Australians living in the community rate their health from good to excellent (64% of people over 70 years)<sup>15</sup>

## **4.2 Well being**

Personal well being depends on how people view themselves, their satisfaction with life, the degree to which they feel safe and accepted by people they value, and whether their needs are being met. Since perceptions of needs and values differ between people, so also their perception of well being differs. What is generally accepted however, is that a person's well being affects their health, just as their health affects their well being.

### *ACT Quality of Life Surveys*

The Quality of Life Project<sup>16</sup> is a collaborative project between the Epidemiology Unit in the Department of Health and Community Care and the National Centre for Cultural Heritage at the University of Canberra. It aims to provide an overview of the changing health related quality of life for people residing in the ACT. This project excludes people living in institutions and establishments such as nursing homes. It has operated for five years and, to date, has surveyed randomly selected ACT people, asking them to rate their health-related quality of life using the Medical Outcomes Study's Short Form 36 (SF-36). Results for 1994-97 surveys follow:

#### *In terms of age:*

- People aged 18-24 years had significantly better physical functioning than older people.
- The middle-aged group (45-64 yrs) reported worse general health when compared with the youngest (18-24 yrs) and the oldest groups (65 yrs and over).
- Older people (65 yrs and over) were significantly more likely to have good mental health than their younger counterparts.

*In relation to gender:* Females tended to report lower (poorer) than males for mental health scales but higher for general health.

#### *For educational attainment:*

- People with higher education levels had a significantly higher score than people with lower education levels in physical functioning and bodily pain.
- Interestingly, people who attained the education level year 12 (and/or with trade/secretary/business qualifications) tended to report better general health than other groups (such as those with at most some secondary; year 10 only; or degrees/postgraduates).

Not surprisingly, *disability status* showed strong association with respondents' well-being: Respondents who had moderate or extreme disability had the worst score in all of the SF-36 scales.

## **4.3 Risk factors to good health**

It is generally accepted that "healthy ageing" is best commenced in early life with early good health behaviours (no smoking, nutritious diet, exercise etc). There are measures, which commenced at any time, should enhance older people's health. These include regular exercise, falls prevention measures and better use of medications.

The National Health Survey 1995 canvassed information on health status. ACT results for people over 50 years of age follow.

**Table 8: Self assessed health status, people 50 yrs & over, ACT & Australia, 1995**

Status	ACT		Australia	
	No.	%	No.	%
Excellent	9496	16.5	617772	13.3
Very good	17437	30.3	1245919	26.9
Good	16347	28.4	1423215	30.7
Fair	10095	17.6	960130	20.7
Poor	4087	7.1	391585	8.4

Source: ABS, *National Health Survey 1995*, unpublished data, Catalogue No. 4364

The table above shows that 75 percent of ACT residents 50 years old or more rate their health as good to excellent (71% for Australia generally) and only 7 percent rate their health as poor (8% in Australia). In comparison, for the general ACT population, 86 percent rated their health as good to excellent and 3 percent rated their health as poor.<sup>17</sup>

Table 9 shows that 10 percent of ACT residents 50 years old or more rate their drinking of alcohol to be at a hazardous or harmful level (7% for Australia generally). Thirty-three percent undertake moderate or vigorous exercise (28% for Australia), 31 percent do not exercise (40% for Australia), and 51 percent are overweight or obese (47% for Australia). ACT residents tended to exercise more than Australians generally. ACT residents also participated more in organised sports (55-64 yrs; ACT 22.2%, Australia 19.8%; 65 yrs and over; ACT 17.6%, Australia 16.6%).<sup>18</sup>

Proportionally fewer ACT residents were underweight, more were of acceptable weight, and more were overweight or obese, than for Australia generally. As for Australia, the proportion of people with acceptable weight decreases with age, with a corresponding increase in overweight people and obesity.

**Table 9: Selected health risk factors, people 50 yrs & over, ACT & Australia, 1995**

Risk behaviour	ACT		Australia	
	No.	%	No.	%
<b>ALCOHOL CONSUMPTION</b>				
Did not consume alcohol	21546	37.6	2321057	50.0
Low risk	29986	52.3	1991399	42.9
Hazardous	3067	5.3	226910	4.9
Harmful	2733	4.8	99175	2.1
Total	57331	100.0	4638541	100.0
<b>SMOKING</b>				
Smoker status				
Smoker	9208	16.0	737711	15.9
Ex smoker	22162	38.6	1661914	35.8
Never smoked	26094	45.4	2238995	48.3
Total	57463	100.0	4638621	100.0
<b>EXERCISE</b>				
Exercise level index				
Vigorous exercise level	2268	3.9	124242	2.7
Moderate exercise level	16527	28.8	1173447	25.3
Low exercise level	20707	36.0	1468169	31.7
Sedentary exercise level	17962	31.3	1872763	40.4
Total	57463	100.0	4638621	100.0
<b>BODY MASS</b>				
Body mass index				
Less than 20 (underweight)	2775	4.8	277815	6.0
20 to 25 (acceptable weight)	21977	38.2	1734109	37.4
25 to 30 (overweight)	21383	37.2	1586050	34.2
30 or more (obese)	7858	13.7	601396	13.0
Not known/Not stated	3468	6.0	439251	9.5
Total	57463	100.0	4638621	100.0

Source: ABS, *National Health Survey 1995*, unpublished data, Catalogue No. 4364

Table 10 confirms that ACT (and Australian) older people were generally healthy at the time of the survey. Very few people reported recent colds, coughs, sore throats, hayfever, eczema, back problems, influenza or arthritis. Only 13 percent reported recent headaches and 4.5 percent reported asthma. However, 22 percent reported recent hypertension. ACT results were similar to those of Australia. In the general ACT population approximately double the proportion experienced headaches (23%), hayfever (6%), influenza (4%) or asthma (9%), triple the proportion had a cold (10%) or a cough or sore throat ((4%) compared to people 50 years or more. Triple the proportion of older people did however, report hypertension (7% of general population).

**Table 10: Recent reported condition, people 50 yrs & over, ACT & Australia, 1995**

Condition	ACT		Australia	
	No.	%	No.	%
Headache	7406	12.9	421601	9.1
Common Cold	2152	3.7	138406	3.0
Cough or Sore throat	842	1.5	78239	1.7
Hayfever	1605	2.8	103401	2.2
Eczema, dermatitis	992	1.7	75809	1.6
Asthma	2584	4.5	259002	5.6
Back prob.s, unspecified	1388	2.4	168709	3.6
Influenza	1458	2.5	104948	2.3
Arthritis (NEC)	1646	2.9	238170	5.1
Hypertension	12633	22.0	1272075	27.4

Source: ABS, *National Health Survey 1995*, unpublished data, Catalogue No. 4364

Table 11 shows that few older people experience long-term asthma or allergies. They do however, often have sight problems and to a lesser extent, hypertension and hearing problems. Hayfever, sinusitis and arthritis are also quite prevalent. The proportion of older people in the ACT having hayfever is higher than the proportion for Australia generally.

Compared to ACT people generally, a higher percentage of older people reported experiencing myopia (ACT 30%), sight problems (ACT 24%), hypertension (ACT 10%), hearing problems (ACT 11%) than the general ACT population. Older people reported less hayfever (ACT 24%), asthma (ACT 15%), and allergies (ACT 19%) than the general ACT population.

**Table 11: Long term reported conditions, people 50 yrs & over, ACT & Australia, 1995**

	ACT		Australia	
	No.	%	No.	%
Myopia/short sighted	19,951	34.7%	1,515,686	32.7%
Hypermetropia/far-sighted	28,754	50.0%	2,273,474	49.0%
Other disorders of refraction	1,955	3.4%	156,118	3.4%
Hayfever	9,613	16.7%	573,636	12.4%
Asthma	3,846	6.7%	376,947	8.1%
Sinusitis	7,505	13.1%	533,984	11.5%
Allergy	3,915	6.8%	227,663	4.9%
Hypertension	15,983	27.8%	1,419,108	30.6%
Deafness	12,811	22.3%	1,076,879	23.2%
Arthritis	5,299	9.2%	709,914	15.3%

Source: ABS, *National Health Survey 1995*, unpublished data, Catalogue No. 4364



The National Health Survey questioned respondents about health actions they took in the two weeks preceding the survey (refer Table 12). Relatively few ACT older residents reported going to the dentist, being hospitalised, visiting outpatients or emergency departments, seeking health advice from anyone other than a doctor, or reducing their activity because of health problems. Over a quarter visited the doctor and took vitamins or herbal medicines. Over three-quarters took medications. ACT proportions were similar to national proportions. The proportion of older people undertaking specified actions was less than for people generally in hospitalisations (ACT 7.9%), but more for visiting doctors (ACT 22.2%) and taking medications (ACT 71.5%).

**Table 12: Whether took action in last 2 weeks, people 50 yrs & over, ACT & Australia, 1995**

	ACT		Australia	
	No.	%	No.	%
Dental	4637	8.1%	276328	6.0%
Speak to someone	3486	6.1%	163013	3.5%
Take vitamins or herbal	22080	30.9%	1619160	29.1%
Take medication (a)	44941	78.2%	3668488	79.1%
Away from work/school	1937	3.4%	122518	2.6%
Reduced activity	4924	8.6%	403484	8.7%
Hospitalised	779	1.4%	58866	1.3%
Visited outpatients/casualty	1570	2.7%	164370	3.5%
Doctor consultation	16094	28.0%	1508111	32.5%

(a) excludes vitamin and herbal medications

Source: ABS, *National Health Survey 1995*, unpublished data, Catalogue No. 4364

## 5. General mortality

In 1997 there were 1137 deaths (545 males, 592 females) in people over 50 years of age. This was 85.2 percent of all deaths for that year.

### 5.1 Age-specific mortality

Age specific mortality rises substantially in the older age groups (refer Table 13). Age specific death rates in the ACT fluctuated between years, especially in the oldest age groups because the populations of those groups are small. Male age specific rates were usually higher than corresponding rates for females.

**Table 13: Age specific death rates(a), by sex, persons aged 50+ years, ACT, 1993-97**

Age	1993		1994		1995		1996		1997	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
50-54	349.0	214.1	423.3	255.7	317.6	276.0	317.2	177.5	227.9	289.7
55-64	968.7	495.4	890.1	522.1	852.8	564.2	835.8	452.8	693.8	465.3
65-74	2490.0	1393.0	2632.0	1498.5	2292.6	1337.3	2571.9	1621.1	2589.4	1505.9
75-84	8321.7	4282.8	6882.6	4827.4	5809.1	4005.3	6532.5	4590.3	6543.0	4262.8
85+	14395.9	12208.1	15789.5	16549.7	17400.9	11902.5	21353.1	13612.6	16302.2	17280.0

(a) Rate per 100,000

Source: ABS, Deaths in the ACT 1993-97, Confidentialised unit record data file

Of all registered deaths of ACT residents in 1997, approximately half occurred at age 75 or older (refer Table 14). This proportion was relatively constant from 1993 to 1997. Females made up the majority of deaths in this older age group.

**Table 14: Age at death, ACT 1993-97**

	1993	1994	1995	1996	1997
<b>75 years and over</b>					
Males	235	219	219	277	270
Females	261	337	278	343	401
Total	496	556	497	620	671
% total deaths	45%	45%	45%	48%	50%
<b>Less than 75 years</b>					
Males	397	425	374	421	393
Females	217	241	243	259	270
Total	614	666	617	680	663
% total deaths	55%	55%	55%	52%	50%

Source: ABS, Deaths Australia 1997, Catalogue No. 3302.0

### 5.2 Causes of death

In general, age specific mortality increases with age for specific causes. This pattern is most marked for degenerative diseases such as diseases of the circulatory system, nervous system and respiratory system and for neoplasms (refer Table 15). Deaths due to external causes of injury and poisoning also jump substantially in the older age groups, although it is not an even rise. The oldest age groups also have high mortality due to mental disorders, and diseases of the nervous and sense organs. Many of these deaths would be for organic senile and presenile psychoses and for Alzheimer's disease. Age specific death rates for some causes, such as neoplasms, fluctuated from year to year, this fluctuation is often due to the small numbers involved in the ACT.

**Table 15: Age and sex specific death rates for selected causes, ACT, 1993-97**

Cause of death	Age	1993		1994		1995		1996		1997	
		M	F	M	F	M	F	M	F	M	F
Neoplasms	0-49	17.8	14.7	21.9	14.7	20.2	25.2	24.2	21.8	17.2	23.0
	50-54	174.5	128.4	166.8	148.0	85.5	250.9	79.3	71.0	103.6	182.4
	55-64	520.8	236.9	465.3	292.4	358.6	382.8	347.5	221.6	297.3	232.6
	65-74	946.2	682.3	935.5	481.2	998.1	607.9	983.4	616.3	928.0	673.7
	75-84	2510.5	792.0	2114.3	1038.5	1784.2	981.4	2012.9	1159.9	1399.6	1257.9
	85+	3341.9	1910.8	4545.5	1905.7	2863.4	1124.6	4651.2	1657.9	2584.5	1600.0
	Total	140.1	94.6	140.7	97.7	124.8	119.3	139.9	108.2	117.0	125.8
Endocrine, nutritional & metabolic diseases and immunity disorders	0-49	4.0	0.8	7.3	2.4	5.7	0.0	2.4	0.0	1.6	0.0
	50-54	0.0	0.0	12.8	0.0	36.6	0.0	11.3	11.8	0.0	10.7
	55-64	20.8	21.5	20.2	0.0	29.1	30.2	37.6	0.0	9.0	9.3
	65-74	83.0	14.2	63.4	110.0	62.4	54.0	90.8	40.2	89.8	39.6
	75-84	232.5	146.7	179.9	56.1	83.0	132.6	189.9	197.4	35.0	186.3
	85+	257.1	0.0	956.9	802.4	220.3	281.2	211.4	261.8	795.2	640.0
	Total	12.1	6.0	16.0	13.9	13.2	9.8	13.1	9.7	9.2	13.5
Mental disorders	0-49	0.8	0.0	0.8	0.0	2.4	0.8	8.9	1.6	3.3	1.6
	50-54	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.7
	55-64	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6	0.0	0.0
	65-74	0.0	0.0	31.7	27.5	31.2	0.0	15.1	13.4	15.0	13.2
	75-84	0.0	146.7	90.0	168.4	124.5	132.6	113.9	49.4	0.0	0.0
	85+	257.1	318.5	0.0	1003.0	1101.3	937.2	422.8	785.3	397.6	640.0
	Total	1.3	5.3	3.3	11.9	8.6	10.4	11.1	9.7	4.6	7.7
Diseases of the nervous and sense organs	0-49	3.2	0.8	3.2	4.1	2.4	0.8	3.2	2.4	3.3	5.7
	50-54	13.4	28.5	0.0	13.5	36.6	12.5	11.3	0.0	0.0	10.7
	55-64	10.4	32.3	0.0	10.4	19.4	30.2	47.0	28.9	9.0	18.6
	65-74	16.6	14.2	79.3	27.5	46.8	13.5	30.3	40.2	44.9	26.4
	75-84	232.5	58.7	179.9	84.2	207.5	132.6	76.0	98.7	209.9	139.8
	85+	514.1	424.6	478.5	0.0	881.1	187.4	634.2	261.8	397.6	400.0
	Total	9.4	8.7	10.0	7.9	13.2	8.5	11.1	10.3	10.5	14.8
Diseases of the circulatory system	0-49	12.1	3.3	16.2	4.1	7.3	6.5	12.1	4.8	11.5	2.5
	50-54	107.4	14.3	153.9	26.9	122.1	12.5	147.3	35.5	103.6	32.2
	55-64	291.6	150.8	273.1	135.7	242.3	30.2	272.3	115.6	315.3	121.0
	65-74	1162.0	497.5	1109.9	618.6	935.7	378.2	1013.6	535.9	1092.7	502.0
	75-84	3626.2	2610.7	3058.9	2526.0	2821.6	2095.5	3266.2	2566.6	3254.0	1747.0
	85+	7712.1	7218.7	7416.3	10231	8590.3	7591.4	11839.3	7940.7	8349.9	9040.0
	Total	153.5	140.6	152.0	169.6	139.3	130.4	173.9	164.8	174.5	158.0
Diseases of the respiratory system	0-49	3.2	0.8	0.8	2.4	1.6	0.0	1.6	0.8	4.1	5.7
	50-54	13.4	14.3	0.0	40.4	12.2	0.0	11.3	11.8	10.4	0.0
	55-64	62.5	32.3	50.6	31.3	48.5	40.3	0.0	38.5	36.0	37.2
	65-74	83.0	85.3	269.5	82.5	109.2	121.6	272.3	201.0	149.7	66.1
	75-84	1394.7	322.7	629.8	533.3	539.4	212.2	455.8	246.8	944.7	442.6
	85+	1542.4	1486.2	1196.2	702.1	881.1	937.2	1691.3	785.3	1988.1	2880.0
	Total	34.8	24.0	28.0	27.1	21.1	20.2	26.8	25.8	37.3	45.8
External causes of injury and poisoning	0-49	36.4	13.1	48.6	17.1	41.2	8.9	38.0	14.5	44.2	14.8
	50-54	13.4	14.3	38.5	0.0	12.2	0.0	34.0	47.3	0.0	21.5
	55-64	0.0	0.0	20.2	10.4	67.8	40.3	56.3	0.0	9.0	27.9
	65-74	33.2	0.0	47.6	0.0	15.6	40.5	15.1	26.8	119.7	52.8
	75-84	46.5	29.3	135.0	28.1	83.0	53.1	151.9	49.4	35.0	93.2
	85+	0.0	106.2	239.2	200.6	881.1	0.0	634.2	174.5	198.8	320.0
	Total	32.8	12.7	48.0	16.5	43.6	13.0	41.8	18.0	42.5	22.6

Source: ABS, Deaths in the ACT 1993-97, Confidentialised unit record data file

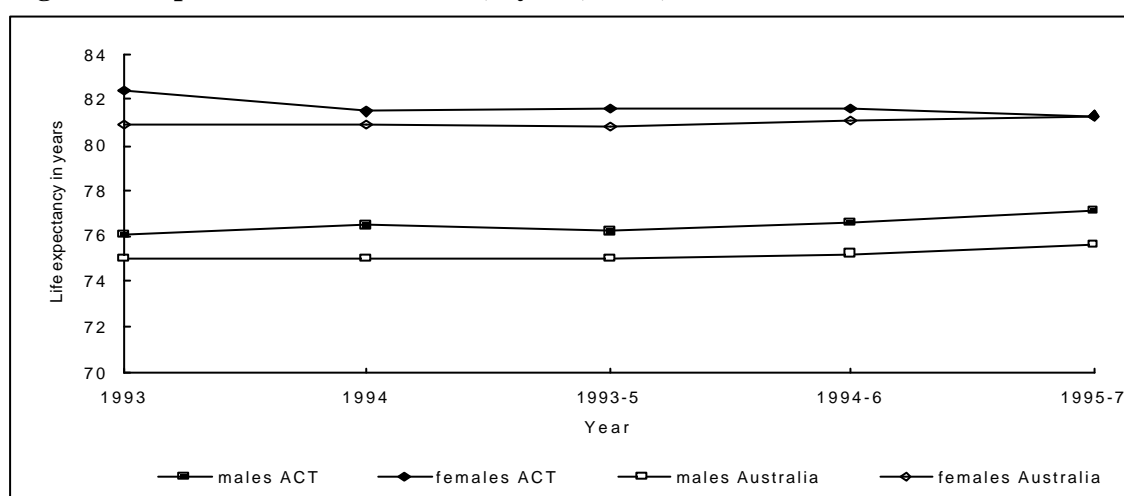
For specific comments on mortality by major causes, refer Section 7

### 5.3 Life expectancy

Life expectancy at birth has been steadily climbing for all Australians throughout this century. Australian life expectancies are “amongst the highest in the world and represent considerable decreases in mortality over the last century”.<sup>19</sup>

ACT males have higher life expectancy than other Australian males. In 1997, ACT males recorded the highest expectation of life from birth of all states and territories (77.1 years compared to 75.6 nationally). A slightly increasing trend in life expectancy for ACT males is evident over the last 5 years of available data (see Figure 9). For ACT females however, no increases in life expectancy are evident in the last 5 years. At 81.3 years ACT females life expectancy from birth for 1997 was equal to the national average.

**Figure 9: Expectation of life at birth, by sex, ACT, 1993-97**



Note: From 1995 onward, life expectation data was calculated by the ABS using 3 years population and deaths data  
 Source: ABS, *Demography ACT 1997*, Catalogue No. 3311.8  
 ABS, *Deaths Australia*, Catalogue No. 3302.0

**Table 16: Expectation of life from birth, ACT, 1971-97**

	ACT				Australia
	1971	1981	1991	1995-97	1995-97
Males	68.94	71.44	75.60	77.11	75.57
Females	76.01	79.43	81.18	81.31	81.27

Source: ABS, *Demography ACT 1997*, Catalogue No. 3311.8

### 5.4 Aboriginal and Torres Strait Islander people

In 1996 there were 5 deaths and in 1997 there were 4 deaths of Aboriginal and Torres Strait Islander people in the ACT. These numbers are too low for any patterns of death causes to be detected - even when the two years of data are added together (see Table 17). One third of these deaths were children who died as a result of a single accident. One third were due to circulatory diseases. Five of the 9 deaths involved people aged 50 years or more. More years of data are needed before any true cause of death patterns can be discerned.

**Table 17: Causes of death of Aboriginal and Torres Strait Islander people, ACT, 1996 & 1997**

<b>Cause of death</b>	<b>Persons</b>
Diseases of the circulatory system	3
Injury and poisoning	3
Other deaths	3
<b>Total</b>	<b>9</b>

Source: ABS, *Causes of death ACT 1996 and 1997*, Confidentialised unit record

### **5.5 Emerging issues**

- With the ageing of the ACT population, causes of death related to older people (eg. cancer and cardiovascular diseases) will continue to rise. In particular, age related chronic diseases (such as dementia and arthritis) will become more prevalent.
- There are slightly more females than males living in the ACT. Since women tend to live longer than men, acute services, nursing home accommodation and palliative care services will need to cater for even higher proportions of females as the population ages.

## 6. General morbidity

As mentioned, most older people experience good health, but there is a small percentage who have deteriorating physical and mental health and a smaller percentage who are identified as frail and/or dependent on varying degrees of assistance. As people live longer, the chances of them becoming disabled or in need of medical or hospital services increase. Older people use health services more than young people.

### 6.1 ACT Quality of Life Surveys

The Quality of Life Project results for 1994-97 surveys are summarised at Section 4.2.

### 6.2 Disability, Ageing and Carers Survey 1998

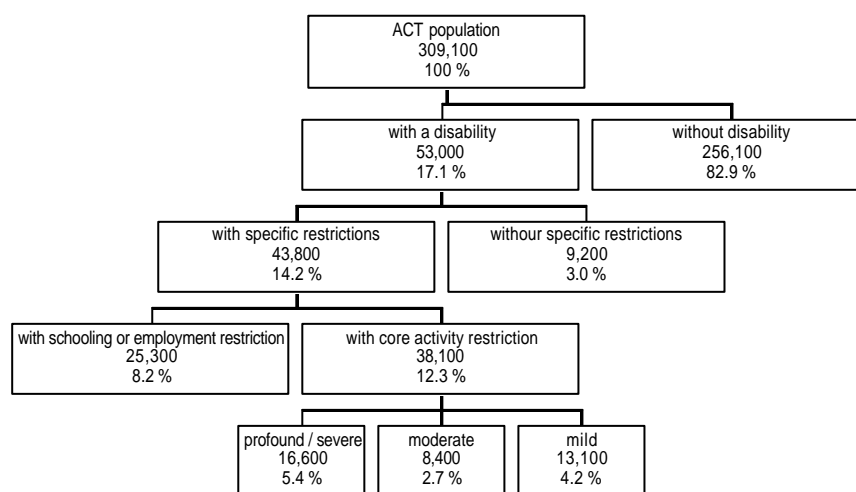
This was the second such survey conducted by the Australian Bureau of Statistics, the first being undertaken in 1993. It is based on self-reported answers to questionnaires.

#### 6.2.1 Disability and handicap

Results showed that an estimated 53,100 people in the ACT (17% of the population) had a disability and 53,000 had an impairment or long term condition which restricted their daily lives. Of those with a disability, 82.5 percent had specific restrictions in core activities (eg. schooling and employment). These estimated proportions are similar to those found for Australia generally, although there was a difference in sex comparisons. Nationally, there were slightly more males with a disability (20%) than females (19%) whereas in the ACT females (18%) had a higher proportion than males (17%).

The following figure shows the proportion of people in the ACT who have a disability and the level of impairment resulting.

**Number & proportion of persons with a disability, with a handicap, ACT 1998**



Source: Luke P, ABS *National Survey of Disability, Ageing & Carers: ACT analysis*, Health Status Monitoring Epidemiology Unit, 1999

The rate of disability increased with age (4% for infants to 82% for people over 85 years). ACT proportions for older people were similar to those of Australia generally. However, the Territory had a smaller proportion in the 85 and over group (82% compared to 84%) and a higher proportion in the 65-74 group (51% compared to 47%). There were 14,000 ACT people aged 65 years and more who had a disability (59% of that age group).

**Table 18: Disability rates, by age, older persons, ACT, 1998**

Age	Disability (%)					
	Profound or severe core activity restriction	Moderate core activity restriction	Mild core activity restriction	Schooling or employment restriction	All with specific restriction	All with disability
45-54	5.4	4.6	5.7	15	18	22.7
55-64	7.9	10	8.2	20.3	28.9	33.3
65-74	11.7	*8.2	22.3	-	42.2	51.4
75-84	40	*10.6	*17.3	-	67.6	69.6
85+	*72.5	n.p.	*9.4	-	82.4	82.4
All ages	5.4	2.7	4.2	8.2	14.2	17.2

Note: "Core activity" comprises communication, mobility and self-care

\* refers to data subject to sampling variability between 25% and 50%

Source: ABS, *Disability, Ageing & Carers Survey 1998, unpublished data*

## 6.2.2 Need for assistance

Of the 14,000 people over 65 years who had disabilities, 10,300 (74%) needed assistance with at least one activity. The main activities where help was needed were personal activities (health care, self care etc), property maintenance, housework and transport. (In the 1993 Survey, only 12,200 people over 60 years reported needing assistance. 8,700 or 71% of these had a disability).

Of the 9,600 people over 65 years without disabilities, only 1,600 needed assistance with at least one activity. The main activities where help was needed were property maintenance and transport (These people were not asked about self care, health care or other personal activities).

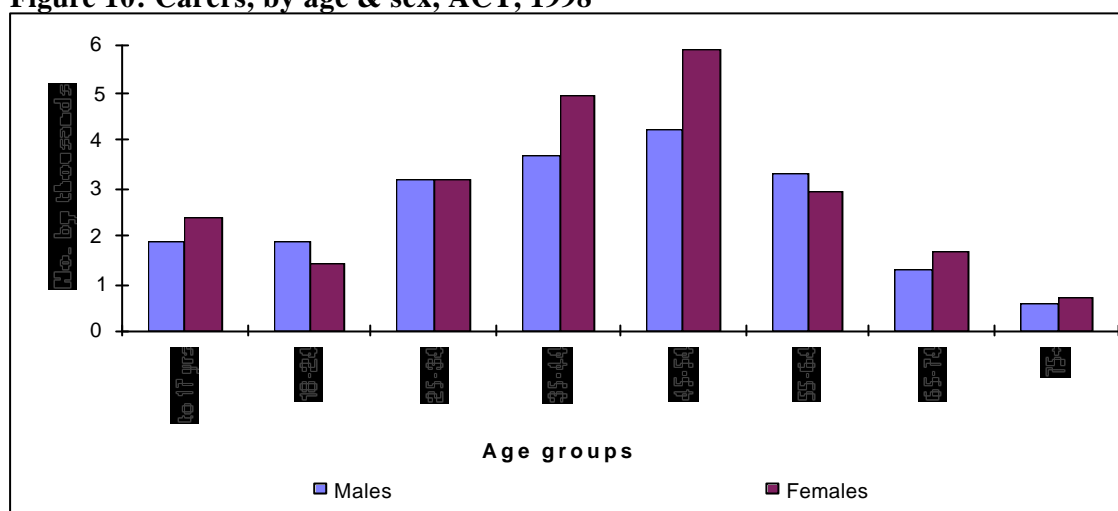
Of those (with and without disabilities) needing assistance, 63 percent had their needs met fully.

## 6.2.3 Carers

Refer Section 7 for additional information about carers.

From survey results, it is estimated that there were 43,100 persons (53% of whom were female) in the ACT who assisted people with disabilities and/or who were aged. Of these there were 5,200 primary carers, 83 percent of whom were females.

**Figure 10: Carers, by age & sex, ACT, 1998**



Source: ABS, *Disability, Ageing & Carers Survey 1998*, unpublished data, Catalogue No. 4430

Although the sample size was too small to make accurate generalisations, it is estimated that approximately half of primary carers derived their income from wages and private income and the other half from pensions of some sort. Approximately half of those in the workforce held part-time positions. Over 60 percent owned their own homes (with or without a mortgage).

### **6.3 Use of medication**

When used appropriately, approved medications can assist in the prevention and control of sickness and in the restoration of health. The National Health Survey 1995 asked respondents about the medications they took. The results showed that approximately 69 percent of Australians used at least one medication in the two weeks prior to the survey. The percentage rose with age from 51 percent (aged 0-14 years) to 88 percent (54 years or more). The most common medications used by people over 54 years were medications for heart and blood pressure, followed by vitamin and mineral supplements and pain relievers.<sup>20</sup>

In the ACT, results were similar. The proportion of people over 50 years taking medication was 78 percent; proportion for people over 55 years was 82 percent; proportion of people over 65 years was 85 percent; and the proportion over 75 years was 87 percent.

### **6.4 Hospital utilisation**

In the 1997-98 year, there were 77,686 inpatient separations from all hospitals in the ACT, both public and private. Of these, 32,746 (42%) were for people over 50 years.



Table 19 summarises hospital activity for people aged 50 years or more. Males predominated separations for older people (53% of separations), which is a similar proportion for all separations (52%) for all ages (excluding separations due to pregnancy).

**Table 19: ACT hospitals - summary of activity for people aged 50 yrs or more, 1997-98**

	Separations	Inpatients	TLOS*	ALOS	Median
<b>Sex</b>					
Male	17438	8933	71220	4.1	1
Female	15308	8816	73777	4.8	1
Total	32746	17749	144997	4.4	1
<b>Principal Diagnosis</b>					
Infectious/parasitic disease	171	111	1534	9.0	6
Neoplasms	3753	2481	21036	5.6	2
Endocrine, nutritional & metabolic Disease, & immunity disorders	333	201	2407	7.3	4
Diseases of blood & blood- forming organs	568	196	1609	2.8	
Mental disorders	440	294	6315	14.6	10
Diseases of the nervous system & Sense organs	1461	1185	3263	2.2	1
Diseases of the circulatory system	4236	3198	24723	5.8	3
Diseases of the respiratory system	1389	1003	11125	8.0	6
Diseases of the digestive system	3032	2420	11512	3.8	1
Diseases of the Genito-urinary system	1947	1575	8439	4.3	
Diseases of the skin & subcutaneous tissue	364	264	2055	5.7	
Diseases of the musculoskeletal system And connective tissue	2117	1838	13167	6.2	4
Congenital anomalies	32	26	136	4.3	1
Signs, symptoms, ill-defined conditions	1214	925	4311	3.6	
Injury/poisoning	1568	1125	14775	9.5	5
Supplementary classification of factors	10116	905	18520	1.8	
Total	32741	17747	144927	4.4	1
<b>Principal Medical Procedure</b>					
Operations on the Nervous system	488	373	3460	7.1	2
Operations on the Endocrine system	48	36	312	6.5	
Operations on the Eye	1053	879	1367	1.3	1
Operations on the Ear	180	153	286	1.6	1
Operations on the Nose, Mouth & Pharynx	509	450	1168	2.3	1
Operations on the Respiratory system	382	287	3951	10.4	
Operations on the Cardiovascular system	7914	1851	15897	2.0	
Operations on Haemic & lymphatic sys.	354	247	2062	5.8	
Operations on the Digestive system	4291	3337	17721	4.1	
Operations on the Urinary system	991	696	4522	4.6	2
Operations on the Male Genital organs	689	611	3897	5.7	
Operations on the Female Genital organs	762	694	3364	4.4	
Operations on the Musculoskeletal system	2645	2294	19197	7.3	
Operations on the Integumentary system	1179	957	4093	3.5	
Miscellaneous diagnostic & Therapeutic procedures	7354	2623	39509	5.4	1
Total	28839	17749	120806	4.2	1
<b>Usual Residence by State</b>					
Non ACT	8073	3565	30747	3.8	1
ACT	17004	8573	80593	4.8	1
Total	25077	12138	111340	4.5	1

TLOS refers to total length of stay; ALOS refers to average length of stay

\* excludes separations 90 days or more

\*\* same day patients are given a length of stay of 1 day

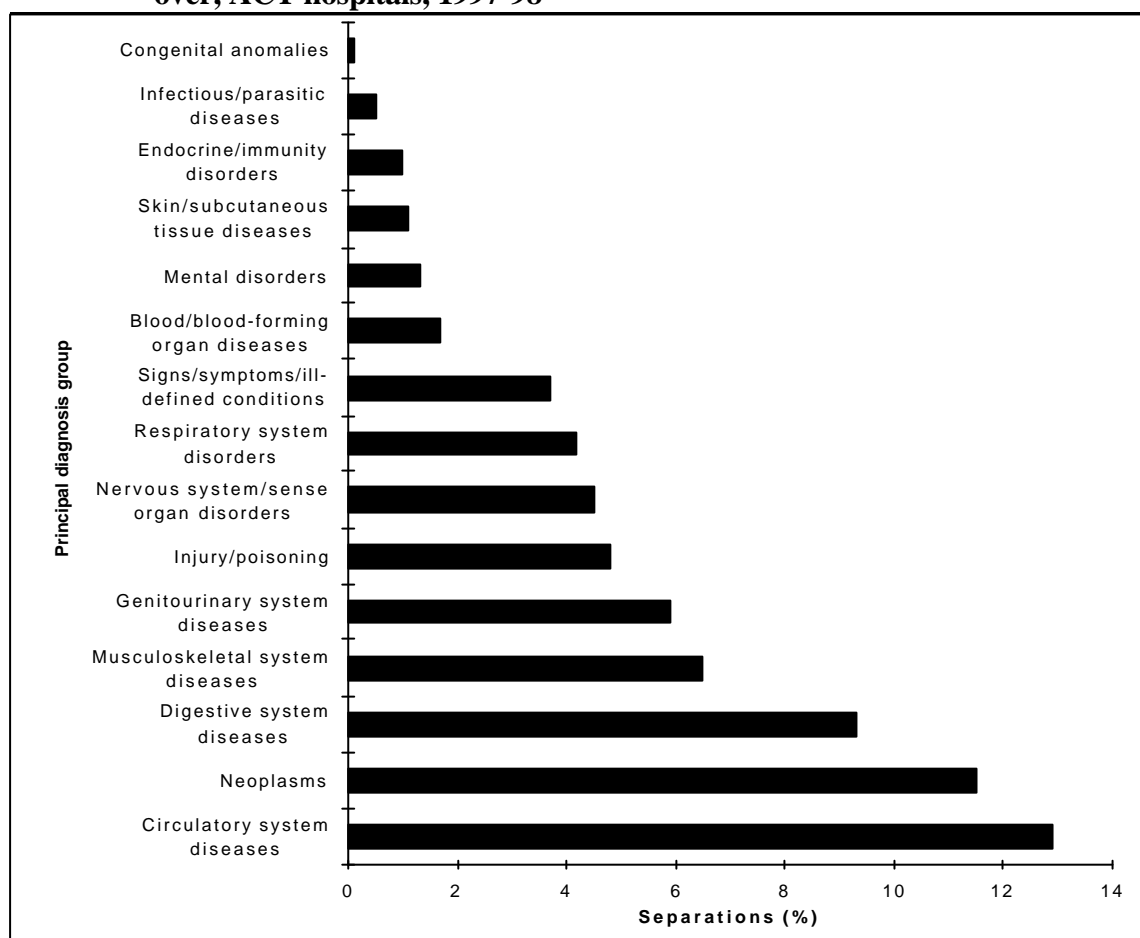
Note: 1) Some patients may have more than one separation at more than one hospital. Because patients may have a different ID number at different hospitals, it is not possible to know how many times an individual was admitted or to know exactly how many persons were separated from all hospitals

2) Includes ACT and non-ACT residents

Source: ACT hospital morbidity dataset, 1997-98

The most common causes for hospitalisation of older people are outlined in (Figure 11).

**Figure 11: Separations by most common principal diagnosis, people aged 50 yrs & over, ACT hospitals, 1997-98**



Note: Includes ACT and non-ACT residents

Source: ACT Hospital Morbidity Data Collection, 1997-98

### *Length of stay*

Table 20 details the number of separations by length of stay for various sub-categories. These have been nominated because of public interest. Note the large number of dialysis and chemotherapy treatments in the supplementary classification of factors. These treatments are nearly all administered in less than one day and, due to their large number, skew the overall average length of stay.

It is interesting to note the differences in average lengths of stay between males and females. Males tend to stay in hospital longer than females, except for mental disorders.

The major causes for high length of stay for older people in 1997-98 were mental disorders, cerebrovascular disease, diabetes mellitus, bronchitis, emphysema, and infectious and parasitic diseases.

**Table 20: Estimated no. of hospital separations for selected principal diagnosis, by sex, by length of stay, people over 50 yrs, ACT, 1997-98**

Principal diagnosis	Sex	Length of stay (days)							ALOS*	Median*
		<1	1	2	3	4-7	8-14	15+		
Infectious and parasitic diseases	M	8	5	10	8	17	18	15	9.1	6
	F	9	8	7	5	28	17	16	8.9	6
AIDS/HIV	M	-	-	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-	-	-
Neoplasms	M	841	237	138	76	264	306	194	5.2	1
	F	625	148	105	69	320	234	196	6.1	2
Malignant neoplasms	M	655	190	101	69	244	286	189	5.8	2
	F	430	117	77	50	230	188	186	6.9	3
Benign: -uterus	F	12	1	3	-	35	16	-	5.4	6
	M	42	14	10	16	38	21	22	6.7	3
Endocrine, nutritional and metabolic diseases and immunity disorders	F	36	8	10	13	43	30	30	7.8	4
	M	-	8	4	7	21	13	16	10.1	6.5
Diabetes mellitus	F	1	1	1	3	16	15	15	12.6	9
	M	29	10	6	9	30	41	65	12.5	9
Mental disorders	F	7	10	12	10	47	59	105	16.1	12
	M	24	3	5	6	22	32	54	12.8	10
Psychosis	F	4	6	6	9	36	39	88	17.4	13
	M	5	7	1	3	8	9	11	11.4	6
Neurosis	F	3	4	6	1	11	20	17	12.2	9
	M	736	289	248	189	485	384	193	5.5	2
Diseases of the circulatory system	F	353	190	180	120	403	279	187	6.4	4
	M	483	79	87	86	219	140	41	4.2	2
Coronary disease	F	175	37	60	42	127	71	31	4.6	2
	M	3	13	19	21	52	55	60	12.4	8
Cerebrovascular disease	F	7	20	10	11	68	55	63	12.4	7
	M	35	95	49	42	236	205	82	7.5	6
Diseases of the respiratory system	F	26	47	50	35	198	195	94	8.6	7
	M	1	7	11	13	79	66	22	8.6	7
Pneumonia	F	2	6	9	6	83	76	28	9.1	7
	M	1	1	1	1	7	4	3	8.6	6
Bronchitis	F	1	-	3	1	3	5	4	10.3	8
	M	-	1	3	4	15	16	9	9.8	8
Emphysema	F	-	-	1	-	10	10	8	10.4	9
	M	3	3	-	8	20	14	3	6.6	5
Asthma	F	3	1	6	2	32	28	2	7.2	6.5
	M	194	118	92	90	295	98	43	4.6	3
Diseases of the genitourinary system	F	462	69	56	34	216	140	40	4.1	1
	M	66	16	14	41	169	41	12	4.8	4
Hyperplasia of the prostate	M	5421	63	33	19	60	73	104	1.7	1
	F	4038	43	36	15	36	62	113	2.0	1
Supplementary classification of factor	M	3	-	-	-	-	-	-	1.0	1
	F	-	-	-	-	-	-	-	-	-
Sterilisation	M	3539	1	1	-	-	-	-	1.0	1
	F	2141	1	1	-	-	1	-	1.0	1
Extracorporeal dialysis	M	1429	4	-	-	3	1	-	1.0	1
	F	1499	3	-	-	2	-	-	1.0	1

\* Excludes separations of 90 days or more; same day patients are given a length of stay of 1 day

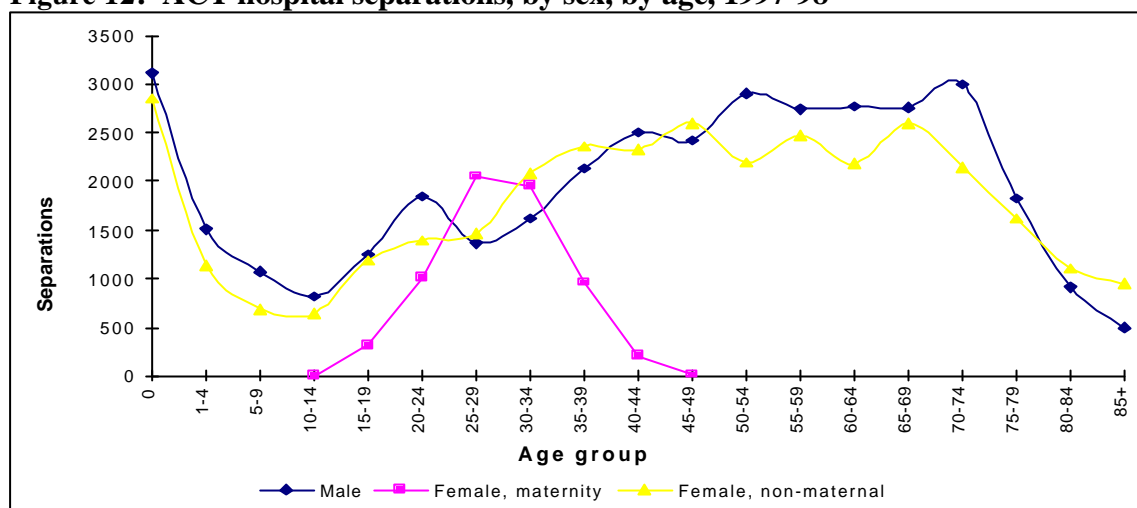
Note: Includes ACT and non-ACT residents

Source: ACT hospital morbidity dataset, 1997-98

### Age-specific hospital separations

Figure 12 gives an overall profile of how hospital services were utilised in 1997-98 in relation to age categories. In the older age groups, comparatively heavy use of hospitalisation occurs in the 50-75 years groups, tapering off in elderly groups. Male separations outnumber female separations until the age of eighty. This is significant, given that there are more females than males in the older age groups, particularly after 65 years.

**Figure 12: ACT hospital separations, by sex, by age, 1997-98**



Note: Includes rena; dialysis patients and ACT and non-ACT residents.

Source: ACT Hospital Morbidity Data Collection, 1997-98

A summary of age and sex related separations is given in Table 21. It shows that different age groups have separations for different major disease groups. From approximately 40 years of age, circulatory system problems and cancer become major reasons for hospitalisation.

**Table 21: ACT hospital separations for high volume diagnostic groups, by age over 45 yrs, 1997-98**

Age (yrs)	Sex	Most frequent major diagnostic groups(a)
45-54	M & F	Digestive system disorders (12%, 13%), Genitourinary disorders (4%, 16%), Neoplasms (7%, 13%), Circulatory system disorders (10%, 6%), Musculoskeletal disorders (7%, 7%)
55-64	M & F	Circulatory system disorders (13%, 7%), Digestive system disorders (9%, 9%), Neoplasms (11%, 12%), Genitourinary disorders (5%, 8%), Musculoskeletal disorders (6%, 8%)
65-74	M & F	Circulatory system disorders (15%, 11%), Neoplasms (13%, 10%), Digestive system disorders (8%, 8%), Musculoskeletal disorders (5%, 7%), Genitourinary disorders (5%, 4%),
75+	M & F	Circulatory system disorders (19%, 19%), Neoplasms (15%, 11%), Digestive system disorders (9%, 9%), Injury & poisoning (5%, 11%), Nervous system disorders (7%, 10%), Genitourinary disorders (7%, 3%) Respiratory disorders (9%, 8%)

(a) Percentages refer to the percentage of separations of each sex for that particular age group, male then female percentages shown.

(b) Includes ACT and non ACT residents.

Source: ACT Hospital Morbidity Data Collection, 1997-98

### **Projections of morbidity for selected causes**

Expected increases in the number of separations per year were calculated by applying 1997-98 age and sex specific separation rates over the next five years to population forecasts for the next five years. For ACT residents in public hospitals only, separations for principal diagnoses of diseases of the respiratory, digestive, genitourinary, and musculoskeletal systems, and for injuries and poisonings are expected to increase by 1 to 2 percent per year over that time. Separations for cancer and circulatory diseases are expected to increase by approximately 3 to 4 percent per year over the next five years. A substantial proportion of the increases will most likely be for older people.

## 6.5 Aboriginal and Torres Strait Islander people

There is a lack of information about primary health care status of Indigenous people in the ACT. Indigenous people in Australia experience worse health than the rest of the population, especially in areas such as diabetes, cardiovascular disease and respiratory diseases. Although ACT Indigenous people are generally better educated, have more appropriate housing and have better access to health services than other Indigenous people, they probably suffer worse health than the general ACT population. This would be particularly true for older Aboriginal and Torres Strait Islander people.

A recent study conducted by Ms Lottie Ceissman for a Master of Applied Epidemiology (Indigenous) course in the ACT surveyed 15 Indigenous people over 50 years; 7 males and 8 females ranging from 50 to 68 years. Although the sample was small, it assists in developing baseline data for future comparison. Of the 15, only 4 reported having no medical condition or health problem.

**Table 22: Medical conditions or health problems, Indigenous people over 50 yrs, ACT, 1999**

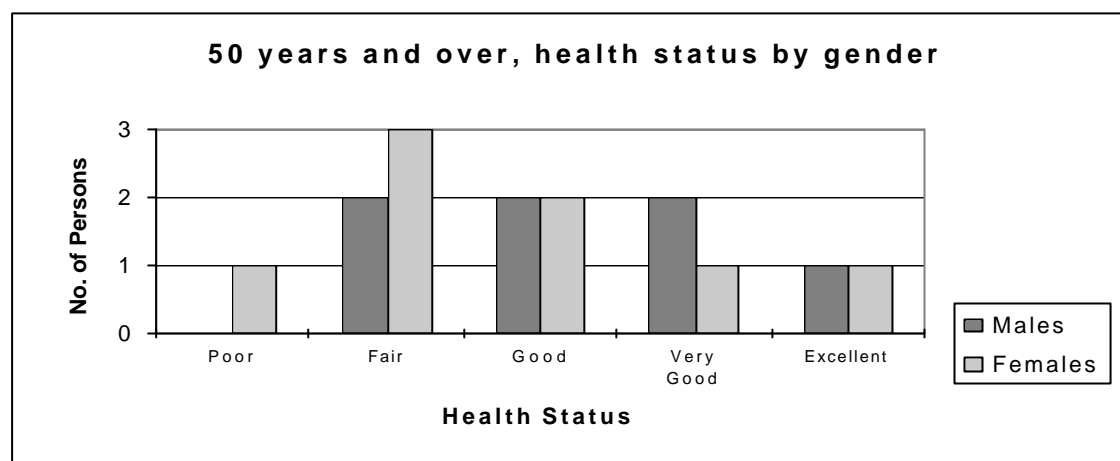
Medical Condition or health problems	Female	Males
Diabetes	1	4
Heart	1	2
Respiratory and lung	4	4
Cancer	0	1
Kidney	0	1
Liver and gall bladder	0	1
Sleep apnea	0	1
High Blood Pressure/ hypertension	2	1
Gout	0	1
Eyes	1	0
Hernia / Ulcers	1	0

Note: Survey participants could list more than one health or medical condition

Source: Ceissman L., unpublished data, 1999

Five males and two females reported having disabilities, mainly reduced ability to walk easily and reduced hearing. Two males received day to day care in their homes. Four females over 50 years, all of whom had a medical condition or problem, provided day to day care for another person. The self-assessed health status of the people surveyed is outlined below. Sixty percent of people rated their health as good to excellent and only one person (0.7%) rated her health as poor. A third of people rated their health as fair.

**Figure 13: Indigenous people 50 years and over, health status by gender, ACT, 1999**



Source: Ceissman L., unpublished data, 1999

Only one third of respondents (2 males, 3 female) reported smoking at all (between 5-50 per day) and two thirds did not drink alcohol at all. Comparing these proportions with the National Health Survey 1995 for people over 50 years shows that the Indigenous respondents had lower proportions of people who drank alcohol (38% nationally), but slightly higher proportions of those who smoked (16% nationally).

Interestingly, all respondents reported having a doctor's visit at least once per month, with just over half of them reporting at least two visits per month. There were 5 males and 4 females who were admitted to any hospital in the last 2 years. Females were admitted for a hand operation, septicaemia and gall stone removal, a heart attack, and kidney dialysis. Reasons for male admittance were heart problems, a heart bypass operation, kidney removal (cancer), knee replacement and another knee operation.

### *Hospital separations*

**Table 23: Aboriginal and Torres Strait Islander separations, 50 years and over, ACT Hospitals, 1997-98 (a)**

Age group	50-59 (b)	60-69	70+	Total
Male	8	5	3	16
Female	12	8	5	25
Persons	20	13	8	41

a) Due to a coding error, Aboriginal and Torres Strait Islander separations for 1997-98 are likely to be under-reported.

b) Excludes 152 repeated separations for renal dialysis.

Note: Includes non-ACT residents.

Source: ACT Hospital Morbidity Data Collection, 1997-98

Excluding separations for renal dialysis, the average length of stay for Aboriginal and Torres Strait Islander people over 50 years of age was 7 days for males, 5 days for females and 6 days for all persons.

In 1997-98, the major principle diagnosis for separations involving Aboriginal and Torres Strait Islander over 50 years of age was diseases of the circulatory system (11 separations). There were 5 separations for diseases of the digestive system, and five for injury and poisoning.

Caution should be taken when interpreting these results as the number of separations is low.

## **6.6 Emerging trends**

- The number of people in the ACT with or without disabilities who need assistance to conduct their daily lives has increased dramatically from 1993 (refer 6.2.2). This has major impacts on resources and delivery of services.
- With an ageing population, osteoporosis becomes an increasing problem. For example, in Australia over the next 20 years, the number of hip fractures is predicted to double.<sup>21</sup> Since 20% of people having such a fracture die in the year following fracture and because each fracture costs about \$16,000, this is a worrying prediction. It has major implications for prevention programs involving exercise, safety in the environment and diet.

## **7. Major causes of morbidity and mortality**

An examination of hospital morbidity data, available research, survey results and deaths data for major causes of sickness and death was undertaken. Results are outlined below. The tables below are listed according to ICD 9 category.

### **7.1 Cardiovascular disease**

Cardiovascular (or circulatory) diseases are the major cause of death for all Australians. However in recent years there have been large reductions in the crude mortality rate for these diseases. In 1997 in the ACT, there were 512 deaths from circulatory diseases, 495 of which were over 50 years (96.7%). For ischaemic heart disease (including myocardial infarction) there were 162 male and 102 female deaths, of which 153 male and 102 female deaths occurred in people aged over 50 years. For cerebrovascular disease (including stroke), there were 54 male and 74 female deaths, all of which were among people aged over 50 years.

Older people had higher proportions of hospital separations with principal diagnoses of circulatory disorders (refer Table 24). Before 75 years of age, smaller proportions of women were admitted for circulatory disorders, but after 75 years proportions for men and women were approximately equal.



**Table 24: Separations, principal diagnosis of circulatory disorder, no. & %, by age group, by sex, ACT, 1993-98**

Year		50-54		55-64		65-74		75-84		85+		All ages
		M	F	M	F	M	F	M	F	M	F	P
1993-94	No.	253	156	608	284	754	486	398	451	59	104	4440
	%	16.1	8.4	14.4	8.8	18.3	13.7	22.1	22.5	20.6	20.1	6.9
1994-95	No.	314	187	662	310	756	562	366	435	72	141	4883
	%	14.8	7.9	12.3	8.2	15.9	12.6	20.4	19.9	21.9	21.7	6.5
1995-96	No.	271	125	589	340	741	522	436	484	96	171	4747
	%	13.3	6.2	11.8	9.0	16.9	11.5	23.6	20.4	23.2	23.4	6.5
1996-97	No.	300	136	637	341	846	459	536	470	86	172	4895
	%	14.1	6.0	12.2	8.0	18.1	10.3	20.4	19.3	21.3	22.7	6.5
1997-98	No.	316	154	707	343	885	517	520	528	96	170	5225
	%	10.9	7.0	12.8	7.4	15.3	10.9	19.0	19.3	19.4	18.1	6.7

NB: Rate per 1,000 population

% refers to the percent of males or females separated in that male or female age group (eg. of males aged 50-54 yrs in 1994-95,

14.8% had a hospital separation)

Includes diagnoses ICD-9-CM 390-459

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, *Population by Age and Sex Australian States and Territories*, Catalogue No. 3201.0

Any person admitted to hospital can be living with several disorders. The principal diagnosis recorded on discharge from hospital only indicates the underlying reason for admission to hospital. Examining both principal and secondary diagnoses provides a better indication of the demands that various disorders lay upon patients and hospital services. From the age of 50, separation rates for principal and secondary diagnoses of circulatory disorder were above the rates for the total ACT population (refer Table 26). This is not unexpected, since many circulatory disorders are degenerative diseases associated with ageing. Age specific separation rates for males were higher than corresponding rates for females.

In 1997-98, there were 3,499 separations for known ACT residents with a principal diagnosis of circulatory disorder. The majority of these were for persons aged 50 years or more (81%). For ACT residents, the average length of stay for separations with a principal diagnosis of cardiovascular disease was 5.7 days in 1997-98. For those over 50 years, the average length of stay was 6.1 days. Discussion about specific circulatory diseases follows.

**Table 25: Age-sex specific separation rates, principal and secondary diagnosis of circulatory disease, ACT, 1993-98**

Year	Diagnos.	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	Princip.	533	354	253	156	608	284	754	486	398	451	59	104	4440
	Second.	217	207	101	77	264	190	380	345	263	349	58	111	2562
	Total	750	561	354	233	872	474	1134	831	661	800	117	215	7002
	Rate	6.1	4.6	46.4	32.3	89.5	50.3	183.9	116.2	302.2	229.5	290.0	221.8	23.3
1994-95	Princip.	643	435	314	187	662	310	756	562	366	435	72	141	4883
	Second.	376	382	160	137	407	316	645	508	412	473	74	183	4073
	Total	1019	817	474	324	1069	626	1401	1070	778	908	146	324	8956
	Rate	8.3	6.6	59.3	42.1	105.8	64.2	220.3	145.8	335.9	247.6	334.9	314.0	29.5
1995-96	Princip.	585	387	271	125	589	340	741	522	436	484	96	171	4747
	Second.	488	457	177	171	490	441	810	693	485	682	119	225	5238
	Total	1073	844	448	296	1079	781	1551	1215	921	1166	215	396	9985
	Rate	8.7	6.8	52.7	36.1	102.9	76.9	238.2	163.4	365.3	298.1	463.9	357.9	32.6
1996-97	Princip.	554	358	300	136	637	341	846	459	536	470	86	172	4895
	Second.	538	635	252	279	720	687	1059	957	788	920	146	321	7302
	Total	1092	993	552	415	1357	1028	1905	1416	1324	1390	232	493	12197
	Rate	8.9	8.1	59.7	46.7	124.8	97.3	286.7	188.4	482.2	333.1	475.4	411.5	39.6
1997-98	Princip.	571	418	316	154	707	343	885	517	520	528	96	170	5225
	Second.	683	745	352	341	941	804	1363	1179	1068	1148	227	476	9327
	Total	1254	1163	668	495	1648	1147	2248	1696	1588	1676	323	646	14552
	Rate	10.3	9.7	67.0	51.2	145.4	104.1	334.1	224.1	530.9	376.8	603.7	490.1	47.4

Note: Rate per 1,000 population; Total refers to the rate of separations for the age - sex group (eg. in 1994-95, the rate of

separations for males aged 50-54 yrs for any diagnosis, was 265.9 per 1,000 population)

Includes diagnoses ICD-9-CM 390-459

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

### Myocardial infarction

While myocardial infarction (heart attack) was usually a principal diagnosis in hospital separations, there were substantial proportions in each year with secondary diagnoses (refer Table 26). Persons admitted with an MI may have a second one. Persons admitted for unstable angina or an order unrelated to heart disease may have an MI during their hospital stay. Separation rates were relatively stable from 1993-98. Age specific separation rates for males exceeded those for females.

**Table 26: Separations, acute myocardial infarction, by age, by sex, ACT, 1993-98**

Year	Diagnos.	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	Princip.	40	15	35	3	64	23	61	35	36	35	8	10	365
	Second.	6	2	3	2	11	5	22	13	15	14	5	2	100
	Total	46	17	38	5	75	28	83	48	51	49	13	12	465
	Rate	0.4	0.1	5.0	0.7	7.7	3.0	13.5	6.7	23.3	14.1	32.2	12.4	1.5
1994-95	Princip.	68	8	36	3	71	21	76	47	32	27	7	16	412
	Second.	15	3	8	0	18	5	31	10	10	21	6	3	130
	Total	83	11	44	3	89	26	107	57	42	48	13	19	542
	Rate	0.7	0.1	5.5	0.4	8.8	2.7	16.8	7.8	18.1	13.1	29.8	18.4	1.8
1995-96	Princip.	59	6	38	10	67	19	73	36	39	35	13	13	408
	Second.	9	1	9	2	20	1	18	5	17	12	2	7	103
	Total	68	7	47	12	87	20	91	41	56	47	15	20	511
	Rate	0.5	0.1	5.5	1.5	8.3	2.0	14.0	5.5	22.2	12.0	32.4	18.1	1.7
1996-97	Princip.	52	6	35	10	65	28	66	30	41	34	4	10	381
	Second.	9	3	5	1	17	9	20	13	16	13	4	5	115
	Total	61	9	40	11	82	37	86	43	57	47	8	15	496
	Rate	0.5	0.1	4.3	1.2	7.5	3.5	12.9	5.7	20.8	11.3	16.4	12.5	1.6
1997-98	Princip.	58	13	38	5	66	20	69	34	53	39	12	8	415
	Second.	11	5	6	0	23	2	22	17	22	20	2	4	134
	Total	69	18	44	5	89	22	91	51	75	59	14	12	549
	Rate	0.6	0.2	4.4	0.5	7.9	2.0	13.5	6.7	25.1	13.3	26.2	9.1	1.8

Note: Rate per 1,000 population

Includes ICD-9-CM 410

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

## Survival status

Table 27 shows that, survival for those who have had a myocardial infarction is strongly related to age. The oldest groups have a lower chance of survival. Although women have a lower survival rate in younger age groups, there was no significant difference found in logistic regression analysis. Given the small numbers of women in the younger age group, the differences between sexes should be interpreted with caution.

**Table 27: Separations, principal or secondary diagnosis of myocardial infarction, % alive on discharge, by age, by sex, ACT, 1993-98**

Age	Sex	1993-94		1994-95		1995-96		1996-97		1997-98		1993-98	
		No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
50-54	M	38	94.7	44	100.0	47	97.9	40	100.0	44	97.7	213	98.1
	F	5	80.0	3	100.0	12	83.3	11	81.8	5	100.0	36	89.0
55-64	M	75	96.0	89	96.6	87	89.7	82	93.9	89	93.3	422	93.9
	F	28	96.4	26	92.3	20	85.0	37	89.2	22	95.5	133	91.7
65-74	M	83	90.4	107	92.5	91	83.5	86	87.2	91	89.0	458	88.5
	F	48	70.8	57	93.0	41	87.8	43	88.4	51	80.4	240	84.1
75-84	M	51	70.6	42	78.6	56	83.9	57	77.2	75	81.3	281	78.3
	F	49	75.5	48	70.8	47	74.5	47	80.9	59	96.6	250	79.7
85+	M	13	76.9	13	46.2	15	60.0	8	25.0	14	57.1	63	53.0
	F	12	83.3	19	57.9	20	55.0	15	73.3	12	58.3	78	65.6
All ages	M	306	89.9	378	92.6	364	89.0	334	89.5	382	89.5	1764	90.1
	F	159	80.5	164	82.3	147	77.6	162	87.0	167	81.4	799	81.8

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 410

Source: ACT hospital morbidity dataset, 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

Separation rates for other forms of ischaemic heart disease were higher than those for myocardial infarction, but showed similar patterns between the sexes and age groups (refer Table 28). Separation rates were relatively stable from 1993-98.

**Table 28: Age-sex specific separations rates, other forms of ischaemic health disease, ACT, 1993-98**

Year	Diagnos.	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	Princip.	115	25	114	21	242	87	243	161	81	98	4	14	1205
	Second.	50	14	41	7	99	45	184	119	133	123	18	29	862
	Total	165	39	155	28	341	132	427	280	214	221	22	43	2067
	Rate	1.3	0.3	20.3	3.9	35.0	14.0	69.3	39.1	97.9	63.4	54.5	44.4	6.9
1994-95	Princip.	131	33	128	41	279	99	266	181	81	97	13	16	1365
	Second.	58	11	48	14	137	49	229	138	124	157	32	46	1043
	Total	189	44	176	55	416	148	495	319	205	254	45	62	2408
	Rate	1.5	0.4	22.0	7.1	41.2	15.2	77.8	43.5	88.5	69.3	103.2	60.1	7.9
1995-96	Princip.	129	36	118	34	281	131	291	172	118	128	14	31	1483
	Second.	62	10	47	9	158	59	290	176	210	254	45	70	1390
	Total	191	46	165	43	439	190	581	348	328	382	59	101	2873
	Rate	1.5	0.4	19.4	5.2	41.9	18.7	89.2	46.8	130.1	97.7	127.3	91.3	9.4
1996-97	Princip.	123	36	129	41	288	129	312	163	127	102	5	20	1475
	Second.	70	21	80	18	210	93	433	179	309	295	59	100	1867
	Total	193	57	209	59	498	222	745	342	436	397	64	120	3342
	Rate	1.6	0.5	22.6	6.6	45.8	21.0	112.1	45.5	158.8	95.1	131.1	100.2	10.8
1997-98	Princip.	109	26	114	29	322	93	336	162	112	125	13	28	1469
	Second.	92	44	101	34	273	132	573	310	464	438	98	201	2760
	Total	201	70	215	63	595	225	909	472	576	563	111	229	4229
	Rate	1.7	0.6	21.6	6.5	52.5	20.4	135.1	62.4	192.6	126.6	207.5	173.7	13.8

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 411-414

Source: ACT hospital morbidity dataset, 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

## Rheumatic fever

From 1993-98, there were less than five admissions with a principal diagnosis of acute rheumatic fever, none were for older people. Separation rates for chronic rheumatic fever were higher, with secondary diagnoses outnumbering principal diagnoses. Usually, older people's separation rates exceeded those for the total ACT population.

**Table 29: Age-sex specific separations, no. & rates, chronic rheumatic fever, ACT, 1993-98**

Year	0-49		50-54		55-64		65-74		75-84		85+		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	P	
1993-94	Princip.		6	1	1	1		5					14	
	Second	4	8	1	2	5	7	3	10	2	2	0	2	46
	Total	4	14	2	2	6	8	3	15	2	2		2	60
	Rate	<b>0.0</b>	<b>0.1</b>	<b>0.3</b>	<b>0.3</b>	<b>0.6</b>	<b>0.8</b>	<b>0.5</b>	<b>2.1</b>	<b>0.9</b>	<b>0.6</b>	<b>0.0</b>	<b>2.1</b>	<b>0.2</b>
1994-95	Princip.		6	1		3	2	5					18	
	Second	4	10	2	1	5	14	8	17	10	11	1	5	88
	Total	4	16	3	2	5	17	10	22	10	11	1	5	106
	Rate	<b>0.0</b>	<b>0.1</b>	<b>0.4</b>	<b>0.3</b>	<b>0.5</b>	<b>1.7</b>	<b>1.6</b>	<b>3.0</b>	<b>4.3</b>	<b>3.0</b>	<b>2.3</b>	<b>4.8</b>	<b>0.3</b>
1995-96	Princip.	1	2	1			2	2	2	2			12	
	Second	1	5	1	3	3	11	8	15	7	15	1	5	75
	Total	2	7	2	3	3	13	10	17	9	15	1	5	87
	Rate	<b>0.0</b>	<b>0.1</b>	<b>0.2</b>	<b>0.4</b>	<b>0.3</b>	<b>1.3</b>	<b>1.5</b>	<b>2.3</b>	<b>3.6</b>	<b>3.8</b>	<b>2.2</b>	<b>4.5</b>	<b>0.3</b>
1996-97	Princip.	1	1	1		1	1	1	3				1	10
	Second	6	9	1	6	1	10	9	16	7	15	4	13	97
	Total	7	10	2	6	2	11	10	19	7	15	4	14	107
	Rate	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>0.7</b>	<b>0.2</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>2.5</b>	<b>3.6</b>	<b>8.2</b>	<b>11.7</b>	<b>0.3</b>
1997-98	Princip.	4	4		3	1	7	3	5	2	3			32
	Second	10	14	1	4	8	13	21	25	24	32	5	11	168
	Total	14	18	1	7	9	20	24	30	26	35	5	11	200
	Rate	<b>0.1</b>	<b>0.2</b>	<b>0.1</b>	<b>0.7</b>	<b>0.8</b>	<b>1.8</b>	<b>3.6</b>	<b>4.0</b>	<b>8.7</b>	<b>7.9</b>	<b>9.3</b>	<b>8.3</b>	<b>0.7</b>

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 393-398

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

## Hypertensive disease

(Refer Section 4.2 for results from National Health Survey). Separation rates for a principal diagnosis of hypertensive disease were very low (Table 30). Secondary diagnoses were much more common, especially for those aged over 65 years. Rates were slightly higher for males before 65 years of age, but higher for females in the oldest age groups. Although hypertension is rarely an underlying cause of death, it is a risk factor for heart attacks, strokes and other health problems.

**Table 30: Separations, No. and rates, hypertensive disease, by age, by sex, ACT, 1993-98**

Year	Diagno	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	P
1993-94	Princip.	4	8	2	3	14	14	2	15	2	5	1	2	72
	Second	98	75	51	41	168	136	244	232	112	211	13	40	1421
	Total	102	83	53	44	182	150	246	247	114	216	14	42	1493
	Rate	<b>0.8</b>	<b>0.7</b>	<b>7.0</b>	<b>6.1</b>	<b>18.7</b>	<b>15.9</b>	<b>39.9</b>	<b>34.5</b>	<b>52.1</b>	<b>62.0</b>	<b>34.7</b>	<b>43.3</b>	<b>5.0</b>
1994-95	Princip.	8	6	1	1	9	9	3	9	2	8		1	57
	Second	187	147	137	98	333	250	438	425	208	341	29	99	2692
	Total	195	153	138	99	342	259	441	434	210	349	29	100	2749
	Rate	<b>1.6</b>	<b>1.2</b>	<b>17.3</b>	<b>12.9</b>	<b>33.9</b>	<b>26.6</b>	<b>69.3</b>	<b>59.1</b>	<b>90.7</b>	<b>95.2</b>	<b>66.5</b>	<b>96.9</b>	<b>9.1</b>
1995-96	Princip.	10	10	4	1	8	11	2	9	1	4	1	2	63
	Second	286	278	188	148	423	424	651	622	316	595	55	145	4131
	Total	296	288	192	149	431	435	653	631	317	599	56	147	4194
	Rate	<b>2.4</b>	<b>2.3</b>	<b>22.6</b>	<b>18.1</b>	<b>41.1</b>	<b>42.8</b>	<b>100.3</b>	<b>84.9</b>	<b>125.7</b>	<b>153.2</b>	<b>120.8</b>	<b>132.9</b>	<b>13.7</b>
1996-97	Princip.	12	11	1	4	2	5	2	6	2	12		4	61
	Second	385	410	238	236	708	639	994	901	618	796	88	238	6251
	Total	397	421	239	240	710	644	996	907	620	808	88	242	6312
	Rate	<b>3.2</b>	<b>3.4</b>	<b>25.9</b>	<b>27.0</b>	<b>65.3</b>	<b>61.0</b>	<b>149.9</b>	<b>120.7</b>	<b>225.8</b>	<b>193.6</b>	<b>180.3</b>	<b>202.0</b>	<b>20.5</b>
1997-98	Princip.	10	8	2	3	3	10	8	10	3	3	1	3	64
	Second	481	400	314	291	868	701	1231	1133	738	1018	114	311	7600
	Total	491	408	316	294	871	711	1239	1143	741	1021	115	314	7664
	Rate	<b>4.0</b>	<b>3.4</b>	<b>31.7</b>	<b>30.4</b>	<b>76.9</b>	<b>64.5</b>	<b>184.1</b>	<b>151.0</b>	<b>247.7</b>	<b>229.5</b>	<b>215.0</b>	<b>238.2</b>	<b>24.9</b>

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 401-405

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

### Diseases of pulmonary circulation

Separation rates for diseases of pulmonary circulation were low. Rates rose with ageing, and were slightly higher for men in most age groups.

**Table 31: Separation rates, diseases of pulmonary circulation, by age, by sex, ACT, 1993-98**

Year	Diagno	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	P
1993-94	Princip.	8	8	4	1	16	5	12	13	6	5	1		79
	Second	9	12	1	3	7	5	21	13	14	18	2	7	112
	Total	17	20	5	4	23	10	33	26	20	23	3	7	191
	Rate	<b>0.1</b>	<b>0.2</b>	<b>0.7</b>	<b>0.6</b>	<b>2.4</b>	<b>1.1</b>	<b>5.4</b>	<b>3.6</b>	<b>9.1</b>	<b>6.6</b>	<b>7.4</b>	<b>7.2</b>	<b>0.6</b>
1994-95	Princip.	16	17	3	2	11	7	18	13	6	9	1	1	104
	Second	10	8	3	5	10	6	25	21	11	16	2	5	122
	Total	26	25	6	7	21	13	43	34	17	25	3	6	226
	Rate	<b>0.2</b>	<b>0.2</b>	<b>0.8</b>	<b>0.9</b>	<b>2.1</b>	<b>1.3</b>	<b>6.8</b>	<b>4.6</b>	<b>7.3</b>	<b>6.8</b>	<b>6.9</b>	<b>5.8</b>	<b>0.7</b>
1995-96	Princip.	12	17		5	7	6	15	15	9	16		2	104
	Second	21	14	4	1	7	11	17	21	7	15	3	2	123
	Total	33	31	4	6	14	17	32	36	16	31	3	4	227
	Rate	<b>0.3</b>	<b>0.3</b>	<b>0.5</b>	<b>0.7</b>	<b>1.3</b>	<b>1.7</b>	<b>4.9</b>	<b>4.8</b>	<b>6.3</b>	<b>7.9</b>	<b>6.5</b>	<b>3.6</b>	<b>0.7</b>
1996-97	Princip.	11	11	7	4	5	5	16	8	8	12	1	6	94
	Second	15	29	8	7	8	5	19	29	14	23	5	5	167
	Total	26	40	15	11	13	10	35	37	22	35	6	11	261
	Rate	<b>0.2</b>	<b>0.3</b>	<b>1.6</b>	<b>1.2</b>	<b>1.2</b>	<b>0.9</b>	<b>5.3</b>	<b>4.9</b>	<b>8.0</b>	<b>8.4</b>	<b>12.3</b>	<b>9.2</b>	<b>0.8</b>
1997-98	Princip.	18	26	6	9	8	9	17	15	13	22	2	3	148
	Second	10	27	3	4	10	12	23	21	28	27	4	9	178
	Total	28	53	9	13	18	21	40	36	41	49	6	12	326
	Rate	<b>0.2</b>	<b>0.4</b>	<b>0.9</b>	<b>1.3</b>	<b>1.6</b>	<b>1.9</b>	<b>5.9</b>	<b>4.8</b>	<b>13.7</b>	<b>11.0</b>	<b>11.2</b>	<b>9.1</b>	<b>1.1</b>

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 415-417

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

### Other forms of heart disease

Separation rates for other forms of heart disease tended to be higher in males (refer Table 32). From 55 years, separation rates for both sexes substantially exceed the rate for the total ACT population.

**Table 32: Age-sex specific separation rates, other forms of heart disease, ACT, 1993-98**

Year	Diagno	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	Princip.	71	32	38	13	76	40	149	90	101	122	21	45	798
	Second	46	39	31	9	76	49	159	134	151	168	40	75	977
	Total	117	71	69	22	152	89	308	224	252	290	61	120	1775
	Rate	<b>0.9</b>	<b>0.6</b>	<b>9.1</b>	<b>3.0</b>	<b>15.6</b>	<b>9.4</b>	<b>50.0</b>	<b>31.3</b>	<b>115.2</b>	<b>83.2</b>	<b>151.2</b>	<b>123.8</b>	<b>5.9</b>
1994-95	Princip.	95	52	41	18	101	55	137	124	97	118	24	52	914
	Second	80	59	32	21	111	67	246	183	208	206	46	106	1365
	Total	175	111	73	39	212	122	383	307	305	324	70	158	2279
	Rate	<b>1.4</b>	<b>0.9</b>	<b>9.1</b>	<b>5.1</b>	<b>21.0</b>	<b>12.5</b>	<b>60.2</b>	<b>41.8</b>	<b>131.7</b>	<b>88.4</b>	<b>160.6</b>	<b>153.1</b>	<b>7.5</b>
1995-96	Princip.	90	55	41	13	86	57	155	105	98	134	33	62	929
	Second	63	69	33	21	120	63	246	174	216	249	67	138	1459
	Total	153	124	74	34	206	120	401	279	314	383	100	200	2388
	Rate	<b>1.2</b>	<b>1.0</b>	<b>8.7</b>	<b>4.1</b>	<b>19.6</b>	<b>11.8</b>	<b>61.6</b>	<b>37.5</b>	<b>124.5</b>	<b>97.9</b>	<b>215.7</b>	<b>180.8</b>	<b>7.8</b>
1996-97	Princip.	99	32	43	9	102	51	182	106	127	126	40	61	978
	Second	80	81	47	35	166	110	327	261	341	359	93	184	2084
	Total	179	113	90	44	268	161	509	367	468	485	133	245	3062
	Rate	<b>1.5</b>	<b>0.9</b>	<b>9.7</b>	<b>5.0</b>	<b>24.6</b>	<b>15.2</b>	<b>76.6</b>	<b>48.8</b>	<b>170.5</b>	<b>116.2</b>	<b>272.5</b>	<b>204.5</b>	<b>9.9</b>
1997-98	Princip.	91	38	48	13	125	60	161	134	168	158	41	63	1100
	Second	160	139	91	43	297	144	504	330	553	558	153	300	3272
	Total	251	177	139	56	422	204	665	464	721	716	194	363	4372
	Rate	<b>2.1</b>	<b>1.5</b>	<b>13.9</b>	<b>5.8</b>	<b>37.2</b>	<b>18.5</b>	<b>98.8</b>	<b>61.3</b>	<b>241.1</b>	<b>161.0</b>	<b>362.6</b>	<b>275.4</b>	<b>14.2</b>

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 420-429

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

### Cerebrovascular disease

Although death rates for cerebrovascular disease were higher in females, sex specific separation rates for these disorders were quite similar from 1993-98 (refer Table 33). In the older age groups secondary diagnoses of cerebrovascular disease equalled and sometimes exceeded principal diagnosis rates.

**Table 33: Age-sex specific separation rates, cerebrovascular disease, ACT, 1993-98**

Year	Diagno	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	Princip.	25	26	5	7	45	36	77	54	56	78	15	19	443
	Second	12	8	5	2	11	15	52	28	33	45	12	19	242
	Total	37	34	10	9	56	51	129	82	89	123	27	38	685
	Rate	<b>0.3</b>	<b>0.3</b>	<b>1.3</b>	<b>1.2</b>	<b>5.7</b>	<b>5.4</b>	<b>20.9</b>	<b>11.5</b>	<b>40.7</b>	<b>35.3</b>	<b>66.9</b>	<b>39.2</b>	<b>2.3</b>
1994-95	Princip.	35	25	18	10	33	22	89	74	56	83	12	28	485
	Second	28	12	6	7	19	16	62	40	63	63	12	24	352
	Total	63	37	24	17	52	38	151	114	119	146	24	52	837
	Rate	<b>0.5</b>	<b>0.3</b>	<b>3.0</b>	<b>2.2</b>	<b>5.1</b>	<b>3.9</b>	<b>23.7</b>	<b>15.5</b>	<b>51.4</b>	<b>39.8</b>	<b>55.0</b>	<b>50.4</b>	<b>2.8</b>
1995-96	Princip.	30	23	12	13	35	29	54	50	60	79	12	24	421
	Second	68	12	3	5	24	23	76	55	60	74	19	35	454
	Total	98	35	15	18	59	52	130	105	120	153	31	59	875
	Rate	<b>0.8</b>	<b>0.3</b>	<b>1.8</b>	<b>2.2</b>	<b>5.6</b>	<b>5.1</b>	<b>20.0</b>	<b>14.1</b>	<b>47.6</b>	<b>39.1</b>	<b>66.9</b>	<b>53.3</b>	<b>2.9</b>
1996-97	Princip.	25	34	9	4	42	28	82	39	80	85	19	38	485
	Second	24	20	11	14	27	31	104	61	100	117	21	53	583
	Total	49	54	20	18	69	59	186	100	180	202	40	91	1068
	Rate	<b>0.4</b>	<b>0.4</b>	<b>2.2</b>	<b>2.0</b>	<b>6.3</b>	<b>5.6</b>	<b>28.0</b>	<b>13.3</b>	<b>65.6</b>	<b>48.4</b>	<b>82.0</b>	<b>76.0</b>	<b>3.5</b>
1997-98	Princip.	36	22	14	11	54	31	85	69	54	81	16	42	515
	Second	33	19	18	19	59	33	107	81	133	144	34	69	749
	Total	69	41	32	30	113	64	192	150	187	225	50	111	1264
	Rate	<b>0.6</b>	<b>0.3</b>	<b>3.2</b>	<b>3.1</b>	<b>10.0</b>	<b>5.8</b>	<b>28.5</b>	<b>19.8</b>	<b>62.5</b>	<b>50.6</b>	<b>93.5</b>	<b>84.2</b>	<b>4.1</b>

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 430-438

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

Separation type for people with a principal diagnosis of cerebrovascular disease varied with age (refer Table 34). People in the oldest age groups were more likely to die, and less likely to be discharged to their home, welfare institution or other residence than younger people with cerebrovascular disease.

**Table 34: Separation type, diagnosis of cerebrovascular disease, by age, ACT, 1997-98**

Mode of separation	0-49		50-54		55-64		65-74		75-84		85+		All ages	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Discharged/transferred to acute hospital	6	10.3	3	12.0	3	3.5	9	5.8	7	5.2	5	8.6	33	6.4
Discharged/transferred to nursing home					2	2.4	7	4.5	18	13.3	18	31.0	45	8.7
Discharged/transferred to health care accomodation	1	1.7	1	4.0	4	4.7	6	3.9	2	1.5	1	1.7	15	2.9
Reclassified this hospital					1	1.2			3	2.2	1	1.7	5	1.0
Left against medical advice	1	1.7									1	1.7	2	0.4
Statistical discharge-type change	3	5.2	5	20.0	8	9.4	11	7.1	12	8.9	2	3.4	41	8.0
Died	8	13.8			5	5.9	18	11.7	19	14.1	11	19.0	61	11.8
Home/other/welfare institution	39	67.2	16	64.0	62	72.9	103	66.9	74	54.8	19	32.8	313	60.8
<b>Total</b>	<b>58</b>	<b>100.0</b>	<b>25</b>	<b>100.0</b>	<b>85</b>	<b>100.0</b>	<b>154</b>	<b>100.0</b>	<b>135</b>	<b>100.0</b>	<b>58</b>	<b>100.0</b>	<b>515</b>	<b>100.0</b>

Source: ACT hospital morbidity dataset 1997-98, Confidentialised unit record file  
Principal diagnosis ICD-9-CM 430-438

### Diseases of arteries, arterioles and capillaries

These diseases become more prevalent with ageing, as is reflected in separation rates (refer Table 35). These rates were higher for males than females in most years and age groups.

**Table 35: Age-sex specific separation rates, diseases of arteries, arterioles & capillaries, ACT, 1993-98**

Year	Diagnos.	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	Princip.	31	13	12	59	68	11	158	68	92	72	7	8	599
	Second.	6	16	8	2	47	20	51	31	61	53	8	5	308
	Total	37	29	20	61	115	31	209	99	153	125	15	13	907
	Rate	<b>0.3</b>	<b>0.2</b>	<b>2.6</b>	<b>8.4</b>	<b>11.8</b>	<b>3.3</b>	<b>33.9</b>	<b>13.8</b>	<b>70.0</b>	<b>35.9</b>	<b>37.2</b>	<b>13.4</b>	<b>3.0</b>
1994-95	Princip.	19	19	14	48	56	18	108	56	69	65	10	16	498
	Second.	20	24	4	2	42	11	73	40	60	34	8	16	334
	Total	39	43	18	50	98	29	181	96	129	99	18	32	832
	Rate	<b>0.3</b>	<b>0.3</b>	<b>2.3</b>	<b>6.5</b>	<b>9.7</b>	<b>3.0</b>	<b>28.5</b>	<b>13.1</b>	<b>55.7</b>	<b>27.0</b>	<b>41.3</b>	<b>31.0</b>	<b>2.7</b>
1995-96	Princip.	23	26	9	10	48	16	108	75	86	53	18	24	496
	Second.	21	23	9	12	38	23	60	39	47	31	13	23	339
	Total	44	49	18	22	86	39	168	114	133	84	31	47	835
	Rate	<b>0.4</b>	<b>0.4</b>	<b>2.1</b>	<b>2.7</b>	<b>8.2</b>	<b>3.8</b>	<b>25.8</b>	<b>15.3</b>	<b>52.7</b>	<b>21.5</b>	<b>66.9</b>	<b>42.5</b>	<b>2.7</b>
1996-97	Princip.	13	23	11	6	55	32	131	56	117	62	12	19	537
	Second.	18	32	4	10	31	24	79	40	88	62	10	17	415
	Total	31	55	15	16	86	56	210	96	205	124	22	36	952
	Rate	<b>0.3</b>	<b>0.4</b>	<b>1.6</b>	<b>1.8</b>	<b>7.9</b>	<b>5.3</b>	<b>31.6</b>	<b>12.8</b>	<b>74.7</b>	<b>29.7</b>	<b>45.1</b>	<b>30.1</b>	<b>3.1</b>
1997-98	Princip.	17	17	20	8	48	38	149	55	92	67	11	15	537
	Second.	32	27	13	9	45	44	148	45	105	61	19	25	573
	Total	49	44	33	17	93	82	297	100	197	128	30	40	1110
	Rate	<b>0.4</b>	<b>0.4</b>	<b>3.3</b>	<b>1.8</b>	<b>8.2</b>	<b>7.4</b>	<b>44.1</b>	<b>13.2</b>	<b>65.9</b>	<b>28.8</b>	<b>56.1</b>	<b>30.3</b>	<b>3.6</b>

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 440-448

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

## Diseases of veins, lymph and other diseases of the circulatory system

Diseases of veins, lymph and other diseases of the circulatory system were more commonly secondary than principal diagnoses (refer Table 36). Male separation rates were usually higher than those for females.

**Table 36: Age-sex, specific separation rates, diseases of veins, & lymph and other diseases of the circulatory system, ACT, 1993-98**

Year	Diagno	0-49		50-54		55-64		65-74		75-84		85+		Total	
		M	F	M	F	M	F	M	F	M	F	M	F	P	
1993-94	Princip.	239	221	42	49	82	67	52	45	24	36	2	6	865	
	Second	94	94	46	25	77	47	66	68	32	41	7	17	614	
	Total	333	315	88	74	159	114	118	113	56	77	9	23	1479	
	Rate	2.7	2.6	11.5	10.3	16.3	12.1	19.1	15.8	25.6	22.1	22.3	23.7	4.9	
1994-95	Princip.	271	267	72	63	102	76	57	53	23	28	5	11	1028	
	Second	149	159	48	34	85	61	98	84	40	53	8	14	833	
	Total	420	426	120	97	187	137	155	137	63	81	13	25	1861	
	Rate	3.4	3.5	15.0	12.6	18.5	14.0	24.4	18.7	27.2	22.1	29.8	24.2	6.1	
1995-96	Princip.	231	212	48	39	57	69	41	58	23	35	5	13	831	
	Second	120	117	31	24	62	51	100	75	45	46	4	24	699	
	Total	351	329	79	63	119	120	141	133	68	81	9	37	1530	
	Rate	2.8	2.7	9.3	7.7	11.4	11.8	21.7	17.9	27.0	20.7	19.4	33.4	5.0	
1996-97	Princip.	218	203	64	58	77	62	54	48	34	37	5	13	873	
	Second	124	141	44	41	89	93	112	116	81	91	15	29	976	
	Total	342	344	108	99	166	155	166	164	115	128	20	42	1849	
	Rate	2.8	2.8	11.7	11.1	15.3	14.7	25.0	21.8	41.9	30.7	41.0	35.1	6.0	
1997-98	Princip.	228	264	74	73	80	75	57	33	23	30		8	945	
	Second	147	226	55	61	134	102	115	133	112	122	27	52	1286	
	Total	375	490	129	134	214	177	172	166	135	152	27	60	2231	
	Rate	3.1	4.1	12.9	13.9	18.9	16.1	25.6	21.9	45.1	34.2	50.5	45.5	7.3	

Note: Rate per 1,000 population. Includes diagnoses ICD-9-CM 451-459

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

## 7.2 Cancer

Approximately 1 in 3 men and 1 in 4 women are likely to develop a cancer before they reach 75 years of age.<sup>22</sup> Although not all cancers are fatal, they are the major cause of premature mortality in Australia. The risk of cancer increases with age. As the ACT moves towards an older population (and more efficient diagnostic tools are used), it can be expected that there will be an increase in the known incidence of cancer in the Territory.

**Table 37: Most common cancers, by age, by sex, ACT, 1993-97**

	0-14 years	15-44 years	45-64 years	65+ years
<b>Males</b>	<b>n = 30</b>	<b>n = 282</b>	<b>n = 837</b>	<b>n = 1263</b>
	leukaemias (17%)	melanoma (25%)	prostate (24%)	prostate (37%)
	brain (10%)	testis (14%)	colon (12%)	lung (9%)
	Hodgkins disease (10%)	Colon(6%)	melanoma (11%)	colon (9%)
<b>Females</b>	<b>n = 22</b>	<b>n = 450</b>	<b>n = 833</b>	<b>n = 834</b>
	leukaemias (32%)	breast (29%)	breast (43%)	breast (21%)
	brain (14%)	cervix (21%)	melanoma (10%)	colon (11%)
	Hodgkins disease (14%)	melanoma (17%)	colon (7%)	trachea (9%)

Note: Percent of all cancers in an age group in brackets. Time period to November 1997.

Source: Briscoe N, *Cancer in the Australian Capital Territory 1983-92*, 1996 and unpublished data from the ACT Cancer Registry



There were 367 deaths due to cancer in the ACT in 1997. Of these 319 were for people over 50 years (155 males, 164 females). Major types of cancer causing death in people over 50 years were cancers of trachea, bronchus and lung (16.7%), and cancer of the colon (11.6%). Cancer of the female breast caused 8.5 per cent of all deaths due to cancer after age 50, and 16.5 per cent of female cancer deaths in that group. Cancer of the prostate accounted for 4.7 per cent of all cancer deaths after age 50, and 9.7 per cent of male cancer deaths in that age group.

Separations due to neoplasms increase with age (refer Table 38). Before age 55, separation rates for females exceeded those for males. After 55 years of age, separation rates for males exceeded those for females.

**Table 38: Separations, principal diagnosis neoplasm, by age, by sex, ACT, 1993-98**

Year		0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	No.	447	1036	155	184	467	355	530	353	287	222	57	56	4149
	Rate	3.6	8.5	20.3	25.5	47.9	37.6	86.0	49.3	131.2	63.7	141.3	57.8	13.8
1994-95	No.	529	1271	159	235	485	393	619	419	287	230	50	45	4722
	Rate	4.3	10.3	19.9	30.5	48.0	40.3	97.3	57.1	123.9	62.7	114.7	43.6	15.6
1995-96	No.	654	1102	164	203	469	343	671	388	275	253	52	76	4650
	Rate	5.3	8.9	19.3	24.7	44.7	33.8	103.1	52.2	109.1	64.7	112.2	68.7	647
1996-97	No.	646	1274	235	296	581	362	740	421	408	276	55	59	5353
	Rate	5.3	10.4	25.4	33.3	53.4	34.3	111.4	56.0	148.6	66.1	112.7	49.2	17.4
1997-98	No.	610	1075	214	288	618	543	753	462	404	318	67	86	5438
	Rate	5.0	9.0	21.5	29.8	54.5	49.3	111.9	61.1	135.1	71.5	125.2	65.3	17.7

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 140-239

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

Separation rates for malignant neoplasms of the digestive organs and peritoneum rose from age 50 years. For males, rates peaked in the 65 to 74 year age group and rates for males were usually higher than corresponding rates for females.

**Table 39: Separations for malignant neoplasms of digestive organs and peritoneum, by age, by sex, ACT, 1993-98**

Year	Diagnos.	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	Princip.	33	12	20	9	61	26	77	42	35	29	5	11	360
	Second.	16	6	4	11	39	12	34	13	18	2	2	3	160
	Total	49	18	24	20	100	38	111	55	53	31	7	14	520
	Rate	0.4	0.1	3.1	2.8	10.3	4.0	18.0	7.7	24.2	8.9	17.3	14.4	1.7
1994-95	Princip.	24	26	19	16	66	37	79	49	41	41	8	6	412
	Second.	12	27	23	39	39	19	101	34	19	22	6	1	342
	Total	36	53	42	55	105	56	180	83	60	63	14	7	754
	Rate	0.3	0.4	5.3	7.1	10.4	5.7	28.3	11.3	25.9	17.2	32.1	6.8	2.5
1995-96	Princip.	21	19	14	15	49	23	75	31	33	35	6	17	338
	Second.	52	59	12	44	109	41	130	74	33	13	7	0	574
	Total	73	78	26	59	158	64	205	105	66	48	13	17	912
	Rate	0.6	0.6	3.1	7.2	15.1	6.3	31.5	14.1	26.2	12.3	28.0	15.4	3.0
1996-97	Princip.	33	17	21	6	61	29	76	44	43	37	7	12	386
	Second.	72	141	66	114	296	177	366	149	102	33	6	7	1529
	Total	105	158	87	120	357	206	442	193	145	70	13	19	1915
	Rate	0.9	1.3	9.4	13.5	32.8	19.5	66.5	25.7	52.8	16.8	26.6	15.9	6.2
1997-98	Princip.	42	40	12	12	64	39	90	58	42	41	9	15	464
	Second.	154	184	104	71	292	284	476	179	101	93	4	9	1951
	Total	196	224	116	83	356	323	566	237	143	134	13	24	2415
	Rate	1.6	1.9	11.6	8.6	31.4	29.3	84.1	31.3	47.8	30.1	24.3	18.2	7.9

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 150-159

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

Separation rates for cancers of respiratory and intrathoracic organs peaked between ages 65 and 84, with age specific rates for males usually exceeding those for females (refer Table 40).

**Table 40: Separations, malignant neoplasm of respiratory and intrathoracic organs, by age, by sex, ACT, 1993-98**

Year	Diagnos.	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	Princip.	6	5	14	4	31	12	49	23	6	14	1	1	166
	Second.	16	1	5	2	29	4	21	32	5	4	2	0	121
	Total	22	6	19	6	60	16	70	55	11	18	3	1	287
	Rate	0.2	0.0	2.5	0.8	6.2	1.7	11.4	7.7	5.0	5.2	7.4	1.0	1.0
1994-95	Princip.	10	11	9	1	35	14	40	23	18	10	1	1	173
	Second.	7	5	14	4	36	10	16	21	21	9	0	1	144
	Total	17	16	23	5	71	24	56	44	39	19	1	2	317
	Rate	0.1	0.1	2.9	0.6	7.0	2.5	8.8	6.0	16.8	5.2	2.3	1.9	1.0
1995-96	Princip.	17	8	6	6	32	16	54	23	23	7	1	1	194
	Second.	11	14	6	2	14	5	32	19	13	4	0	0	120
	Total	28	22	12	8	46	21	86	42	36	11	1	1	314
	Rate	0.2	0.2	1.4	1.0	4.4	2.1	13.2	5.7	14.3	2.8	2.2	0.9	1.0
1996-97	Princip.	17	18	8	5	43	12	55	26	17	11	4	2	218
	Second.	23	44	23	17	75	31	72	59	20	8	1	2	375
	Total	40	62	31	22	118	43	127	85	37	19	5	4	593
	Rate	0.3	0.5	3.4	2.5	10.9	4.1	19.1	11.3	13.5	4.6	10.2	3.3	1.9
1997-98	Princip.	19	5	12	4	28	16	55	27	29	17	3	3	218
	Second.	28	30	3	26	74	25	72	53	37	7	1	3	359
	Total	47	35	15	30	102	41	127	80	66	24	4	6	577
	Rate	0.4	0.3	1.5	3.1	9.0	3.7	18.9	10.6	22.1	5.4	7.5	4.6	1.9

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 160-165

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

Before age 75, females usually had higher age specific separation rates for cancers of bone connective tissue skin and breast (refer Table 41). After 75 years, separation rates for males exceeded those for females. Rates for males peaked in the 85 years and over age group, while rates for females tended to peak earlier.

**Table 41: Separations, malignant neoplasms of bone, connective tissue, skin and breast, by age, by sex, ACT, 1993-98**

Year	Diagnos.	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	Princip.	72	133	22	40	82	96	66	82	59	77	18	14	761
	Second.	17	37	2	13	2	26	9	22	10	7	2	7	154
	Total	89	170	24	53	84	122	75	104	69	84	20	21	915
	Rate	0.7	1.4	3.1	7.3	8.6	12.9	12.2	14.5	31.6	24.1	49.6	21.7	3.0
1994-95	Princip.	106	196	39	52	89	100	71	117	68	75	18	15	946
	Second.	19	68	0	55	4	33	6	32	6	10	1	3	237
	Total	125	264	39	107	93	133	77	149	74	85	19	18	1183
	Rate	1.0	2.1	4.9	13.9	9.2	13.6	12.1	20.3	31.9	23.2	43.6	17.4	3.9
1995-96	Princip.	148	223	48	61	112	105	141	118	66	99	18	27	1166
	Second.	58	117	5	19	2	41	11	28	7	12	4	7	311
	Total	206	340	53	80	114	146	152	146	73	111	22	34	1477
	Rate	1.7	2.8	6.2	9.7	10.9	14.4	23.3	19.6	29.0	28.4	47.5	30.7	4.8
1996-97	Princip.	139	243	63	92	129	111	140	129	112	79	24	30	1291
	Second.	30	373	7	182	5	170	25	112	10	29	1	3	947
	Total	169	616	70	274	134	281	165	241	122	108	25	33	2238
	Rate	1.4	5.0	7.6	30.8	12.3	26.6	24.8	32.1	44.4	25.9	51.2	27.5	7.3
1997-98	Princip.	104	244	58	88	117	161	148	138	105	106	25	30	1324
	Second.	26	365	11	171	9	227	22	123	12	46	6	6	1024
	Total	130	609	69	259	126	388	170	261	117	152	31	36	2348
	Rate	1.1	5.1	6.9	26.8	11.1	35.2	25.3	34.5	39.1	34.2	57.9	27.3	7.6

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 170-176

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

Separations for cancers of genitourinary organs increased with age and after age 55 age specific rates for males began to exceed those for females by a substantial margin (refer Table 42).

**Table 42: Separations, malignant neoplasms of genitourinary organs, by age, by sex, ACT, 1993-98**

Year	Diagnos.	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	Princip.	20	30	7	4	60	28	147	32	76	17	12	3	436
	Second.	7	16	2	5	21	21	47	16	28	11	6	1	181
	Total	27	46	9	9	81	49	194	48	104	28	18	4	617
	Rate	0.2	0.4	1.2	1.2	8.3	5.2	31.5	6.7	47.6	8.0	44.6	4.1	2.1
1994-95	Princip.	32	32	17	13	92	23	204	39	70	29	10	3	564
	Second.	27	14	9	19	14	22	65	18	37	7	13	1	246
	Total	59	46	26	32	106	45	269	57	107	36	23	4	810
	Rate	0.5	0.4	3.3	4.2	10.5	4.6	42.3	7.8	46.2	9.8	52.8	3.9	2.7
1995-96	Princip.	44	23	18	10	76	31	166	34	57	23	6	2	490
	Second.	14	23	6	14	15	20	63	30	45	9	17	1	257
	Total	58	46	24	24	91	51	229	64	102	32	23	3	747
	Rate	0.5	0.4	2.8	2.9	8.7	5.0	35.2	8.6	40.5	8.2	49.6	2.7	2.4
1996-97	Princip.	42	40	24	15	124	31	209	31	96	12	6	4	634
	Second.	19	58	11	30	49	75	146	64	96	32	14	6	600
	Total	61	98	35	45	173	106	355	95	192	44	20	10	1234
	Rate	0.5	0.8	3.8	5.1	15.9	10.0	53.4	12.6	69.9	10.5	41.0	8.3	4.0
1997-98	Princip.	40	26	22	15	95	35	174	29	105	30	13	6	590
	Second.	66	74	14	20	61	50	164	100	166	36	29	9	789
	Total	106	100	36	35	156	85	338	129	271	66	42	15	1379
	Rate	0.9	0.8	3.6	3.6	13.8	7.7	50.2	17.0	90.6	14.8	78.5	11.4	4.5

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 179-189

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

Separations for cancers of lymphatic and haematopoietic tissue increased with age, and age-specific rates for males tended to exceed rates for females (refer Table 43).

**Table 43: Separations, malignant neoplasms of lymphatic and haematopoietic tissue, ACT, 1993-98**

Year	Diagnos.	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	Princip.	94	55	21	5	89	49	48	27	17	14	1	9	429
	Second.	86	54	25	12	27	16	47	46	42	7	7	14	383
	Total	180	109	46	17	116	65	95	73	59	21	8	23	812
	Rate	1.5	0.9	6.0	2.4	11.9	6.9	15.4	10.2	27.0	6.0	19.8	23.7	2.7
1994-95	Princip.	86	106	25	11	41	56	56	38	15	13	2	5	454
	Second.	164	157	34	12	32	27	72	37	23	17	1	8	584
	Total	250	263	59	23	73	83	128	75	38	30	3	13	1038
	Rate	2.0	2.1	7.4	3.0	7.2	8.5	20.1	10.2	16.4	8.2	6.9	12.6	3.4
1995-96	Princip.	114	46	16	5	56	23	48	30	18	12	4	9	381
	Second.	195	147	22	11	69	26	70	29	23	15	6	5	618
	Total	309	193	38	16	125	49	118	59	41	27	10	14	999
	Rate	2.5	1.6	4.5	1.9	11.9	4.8	18.1	7.9	16.3	6.9	21.6	12.7	3.3
1996-97	Princip.	105	111	34	21	68	52	62	40	49	25	1	1	569
	Second.	355	354	65	40	118	79	101	82	103	50	8	1	1356
	Total	460	465	99	61	186	131	163	122	152	75	9	2	1925
	Rate	3.7	3.8	10.7	6.9	17.1	12.4	24.5	16.2	55.4	18.0	18.4	1.7	6.2
1997-98	Princip.	156	87	46	13	171	96	99	57	24	28	6	6	789
	Second.	372	229	72	26	141	123	127	110	66	35	11	13	1325
	Total	528	316	118	39	312	219	226	167	90	63	17	19	2114
	Rate	4.3	2.6	11.8	4.0	27.5	19.9	33.6	22.1	30.1	14.2	31.8	14.4	6.9

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 200-208

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

Age-sex specific separation rates for benign neoplasms increased gradually from age 50, but tended to decline from 85 years. Before 65 years, separation rates for females consistently exceeded those for males. After age 65, sex differences in these rates became less consistent.

**Table 44: Separations, benign neoplasms, by age, by sex, ACT, 1993-98**

Year	Diagnos.	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	Princip.	171	649	42	85	59	79	51	59	15	27	3	6	1246
	Second.	34	132	8	14	27	32	26	24	15	25	1	3	341
	Total	205	781	50	99	86	111	77	83	30	52	4	9	1587
	<b>Rate</b>	<b>1.7</b>	<b>6.4</b>	<b>6.6</b>	<b>13.7</b>	<b>8.8</b>	<b>11.8</b>	<b>12.5</b>	<b>11.6</b>	<b>13.7</b>	<b>14.9</b>	<b>9.9</b>	<b>9.3</b>	<b>5.3</b>
1994-95	Princip.	206	691	24	102	60	83	63	61	12	23	3	5	1333
	Second.	49	224	17	30	27	39	29	35	14	36	3	2	505
	Total	255	915	41	132	87	122	92	96	26	59	6	7	1838
	<b>Rate</b>	<b>2.1</b>	<b>7.4</b>	<b>5.1</b>	<b>17.1</b>	<b>8.6</b>	<b>12.5</b>	<b>14.5</b>	<b>13.1</b>	<b>11.2</b>	<b>16.1</b>	<b>13.8</b>	<b>6.8</b>	<b>6.1</b>
1995-96	Princip.	210	606	35	79	56	92	49	65	14	25	2	4	1237
	Second.	59	248	10	38	28	30	20	24	9	23	2	2	493
	Total	269	854	45	117	84	122	69	89	23	48	4	6	1730
	<b>Rate</b>	<b>2.2</b>	<b>6.9</b>	<b>5.3</b>	<b>14.3</b>	<b>8.0</b>	<b>12.0</b>	<b>10.6</b>	<b>12.0</b>	<b>9.1</b>	<b>12.3</b>	<b>8.6</b>	<b>5.4</b>	<b>5.6</b>
1996-97	Princip.	192	618	49	99	66	79	73	62	17	24	2	1	1282
	Second.	42	261	14	49	35	49	27	44	22	31	1	5	580
	Total	234	879	63	148	101	128	100	106	39	55	3	6	1862
	<b>Rate</b>	<b>1.9</b>	<b>7.2</b>	<b>6.8</b>	<b>16.7</b>	<b>9.3</b>	<b>12.1</b>	<b>15.0</b>	<b>14.1</b>	<b>14.2</b>	<b>13.2</b>	<b>6.1</b>	<b>5.0</b>	<b>6.0</b>
1997-98	Princip.	165	477	33	103	64	103	57	48	19	33	1	3	1106
	Second.	86	301	30	73	42	64	64	60	35	29	9	12	805
	Total	251	778	63	176	106	167	121	108	54	62	10	15	1911
	<b>Rate</b>	<b>2.1</b>	<b>6.5</b>	<b>6.3</b>	<b>18.2</b>	<b>9.4</b>	<b>15.2</b>	<b>18.0</b>	<b>14.3</b>	<b>18.1</b>	<b>13.9</b>	<b>18.7</b>	<b>11.4</b>	<b>6.2</b>

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 210-229

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, *Population by Age and Sex Australian States and Territories*, Catalogue No. 3201.0

In 1997-98, 1,968 separations for malignant neoplasms were for known ACT residents. Seventy-three per cent of these (1,433 separations) were for people aged 50 years or more. The average length of stay for all ACT residents with a principal diagnosis of cancer was 6.0 days, while those aged over 50 years had an average stay of 6.6 days.

### 7.3 Injury

Although males tend to die from injuries at a much higher rate than females in the younger age groups, females outnumber males from these causes in older age groups, especially after 75 years. In 1997, 10 males and 15 females over 55 years died from injuries. Ten were due to falls and 4 were due to suicide (2 males, 2 females).

There were 1,206 male and 1,316 female hospital separations for injury in people 55 years or more in 1997-98. Almost a third of male separations (30%) and a half of female separations (47%) were in people over 75 years of age. Major causes of injury were falls (refer below), attempted suicide (9 males, 13 females), reactions to surgical and medical procedures, and adverse effects to medical and biological substances used therapeutically.

Separations due to external causes of injury and poisoning increased with age (refer Table 45). For those younger than 85 years, separation rates for males almost exceeded corresponding rates for females. After age 85, rates for females tended to exceed those for males.

**Table 45: Separations for external causes of injury & poisoning, by age & sex, ACT, 1993-98**

Year		0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	No.	2326	1379	121	142	289	217	339	296	206	272	30	100	5717
	Rate	18.8	11.3	15.9	19.7	29.7	23.0	55.0	41.4	94.2	78.0	74.3	103.1	19.0
1994-95	No.	2572	1561	192	154	346	255	409	344	248	339	54	152	6626
	Rate	20.8	12.7	24.0	20.0	34.2	26.1	64.3	46.9	107.1	92.5	123.9	147.3	21.9
1995-96	No.	2685	1675	156	153	335	283	415	396	237	423	78	161	6997
	Rate	21.7	13.56	18.34	18.64	31.95	27.87	63.74	53.27	93.99	108.2	168.3	145.5	22.83
1996-97	No.	2518	1816	196	199	411	321	514	499	393	471	77	215	7630
	Rate	20.5	14.8	21.2	22.4	37.8	30.4	77.3	66.4	143.1	112.9	157.8	179.5	24.8
1997-98	No.	2137	1477	182	165	384	313	460	391	303	402	59	210	6483
	Rate	17.6	12.3	18.3	17.1	33.9	28.4	68.4	51.7	101.3	90.4	110.3	159.3	21.1

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM E800-E999

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

### Falls

Falls can cause trauma, morbidity, and mortality, especially in older people. It has been estimated that about one third of people (all ages) experience a fall in any one year<sup>23</sup>

A report by the National Health and Medical Research Council (November 1993)<sup>4</sup> notes that:

- \* at least one third of people over 65 years of age fall one or more times a year;
- \* the causes of falls are usually multifactorial involving combinations of age-related physiological decline, chronic disease, medication and environmental factors;
- \* the risk factors for men are decreased physical activity, stroke, arthritis of the knees, gait abnormality and increased static sway;
- \* the risk factors for women are muscle weakness, standing systolic blood pressure of less than 110, psychotropic drugs and medication liable to cause postural hypotension;
  - \* psychological sequelae, such as fear, occur frequently and may lead to increased dependence;
  - \* injuries cause physical, psychosocial and financial costs to the injured person and their carers and financial costs to the community.

Falls prevention strategies have proven to be very effective for older people. These include making homes safer (grip rails, removing loose rugs and furniture which impair movement, altering lighting etc), monitoring the number and doses of medications taken, implementing muscle strengthening regimes and attending to poor balance. The *National Strategy for an Ageing Australia* background paper notes several studies that support interventions to reduce risks of falling. For example, simple modifications to the home can cut the risk of falling in the elderly by more than half, while drug counseling and specific instructions in drug use can reduce medication compliance problems by 39 percent.<sup>24</sup> There were 10 deaths from accidental falls in 1997 (3 males and 7 females), all of whom were over 65 years. This equates to a crude death rate of 29.9 per 100,000 for males and 53.4 for females. Seven of the deaths were for people aged over 75 years (6 were female).

People injured by falls are often seek treatment from general practitioners, although those with suspected fractures tend to present to hospital accident and emergency departments.

In the ACT generally, falls accounted for 1,178 hospital separations (542 male, 636 female) in 1997-98, representing 1.5 per cent of all ACT separations (Table 46). Over half of the separations were for people over 50 years (53%). Falls accounted for 619 hospital separations in the 50 years and

over group (191 male, 428 female), representing 1.9 per cent of separations for that age group. For those over 50 the average length of stay was 13.5 days for males and 13.2 days for females. Such injuries may result in considerable poor quality of life and even early death.

**Table 46: Separations due to accidental falls, by age, by sex, ACT, 1993-98**

Year		0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	No.	416	237	20	20	37	38	34	84	50	142	12	72	1162
	Rate	3.4	1.9	2.6	2.8	3.8	4.0	5.5	11.7	22.9	40.7	29.7	74.3	3.9
1994-95	No.	467	245	25	29	40	50	51	99	66	151	34	91	1348
	Rate	3.8	2.0	3.1	3.8	4.0	5.1	8.0	13.5	28.5	41.2	78.0	88.2	4.4
1995-96	No.	469	264	15	18	34	52	49	81	46	165	27	91	1311
	Rate	3.8	2.1	1.8	2.2	3.2	5.1	7.5	10.9	18.2	42.2	58.3	82.2	4.3
1996-97	No.	496	257	18	26	42	55	52	126	96	182	29	141	1520
	Rate	4.0	2.1	1.9	2.9	3.9	5.2	7.8	16.8	35.0	43.6	59.4	117.7	4.9
1997-98	No.	351	208	25	22	31	59	52	70	56	149	27	128	1178
	Rate	2.9	1.7	2.5	2.3	2.7	5.4	7.7	9.3	18.7	33.5	50.5	97.1	3.8

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM E880-E888

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

Separations due to injuries resulting from abnormal reactions or later complications of surgical or medical care (without mention of misadventure) increased with age (refer Table 47). In older age groups, rates for males for these causes tended to exceed those for females.

**Table 47: Separations, injuries due to abnormal reaction or later complication of surgical or medical care, without mention of misadventure, ACT, 1993-98**

Year		0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	No.	283	337	35	63	155	107	221	145	113	75	11	8	1553
	Rate	2.3	2.8	4.6	8.7	15.9	11.3	35.8	20.3	51.7	21.5	27.3	8.3	5.2
1994-95	No.	355	424	72	69	193	127	268	170	129	115	9	31	1962
	Rate	2.9	3.4	9.0	9.0	19.1	13.0	42.1	23.2	55.7	31.4	20.6	30.0	6.5
1995-96	No.	370	491	53	67	185	134	281	208	137	152	35	32	2145
	Rate	3.0	4.0	6.2	8.2	17.6	13.2	43.2	28.0	54.3	38.9	75.5	28.9	7.0
1996-97	No.	427	598	81	104	249	161	348	247	212	171	31	32	2661
	Rate	3.5	4.9	8.8	11.7	22.9	15.2	52.4	32.9	77.2	41.0	63.5	26.7	8.6
1997-98	No.	397	437	80	77	236	153	290	218	161	145	20	43	2257
	Rate	3.3	3.6	8.0	8.0	20.8	13.9	43.1	28.8	53.8	32.6	37.4	32.6	7.3

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM E878-E879

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

Separations for injuries resulting from adverse effects of drugs, medicinals and biologicals in therapeutic use increased with ageing (refer Table 48).

**Table 48: Separations, injuries due to drugs, medicinals and biologicals causing adverse**

**effects in therapeutic use, by age, by sex, ACT, 1993-98**

Year		0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	No.	80	95	12	13	17	29	35	36	26	34	7	13	397
	Rate	0.6	0.8	1.6	1.8	1.7	3.1	5.7	5.0	11.9	9.8	17.3	13.4	1.3
1994-95	No.	88	107	14	14	30	25	39	36	26	33	8	18	438
	Rate	0.7	0.9	1.8	1.8	3.0	2.6	6.1	4.9	11.2	9.0	18.3	17.4	1.4
1995-96	No.	98	101	10	12	26	38	36	55	15	57	10	19	477
	Rate	0.8	0.8	1.2	1.5	2.5	3.7	5.5	7.4	5.9	14.6	21.6	17.2	1.6
1996-97	No.	98	109	15	17	23	41	58	74	47	73	12	26	593
	Rate	0.8	0.9	1.6	1.9	2.1	3.9	8.7	9.8	17.1	17.5	24.6	21.7	1.9
1997-98	No.	114	164	15	17	44	49	61	61	58	63	7	25	678
	Rate	0.9	1.4	1.5	1.8	3.9	4.4	9.1	8.1	19.4	14.2	13.1	19.0	2.2

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM E930-E949

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

In 1997-98, ACT residents with an external cause of injury accounted for 4,918 separations. Forty-one percent of those separations (2,021) were for people aged over 50 years. The average length of stay for ACT residents with external causes of injury was 7.8 days. For those over 50 years, mean length of stay was 11.6 days.

## 7.4 Mental illness

Mental health is of considerable importance to the community. Mental illness lays considerable emotional, financial and social burdens on sufferers and their families. Therefore, mental health is a major health priority areas both nationally and for the ACT.

Between 1993 and 1997 there were 113 deaths attributed to mental disorders. The majority of those who died from these disorders were elderly and they died mainly from senile or presenile organic psychotic conditions (such as dementia). In 1997, 3 males and 9 females over 65 years died from mental disorders (2 males and 8 females were over 85 years).

### *Hospital separations*

Separation rates for mental disorders increased with age (refer Table 49). Rates fluctuated widely between years in the oldest age groups. These fluctuations were probably a result of small numbers.

**Table 49: Separations for mental disorders, by age and sex, ACT, 1993-98**

Year		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	
1993-94	No.	30	38	46	36	27	55	25	41	5	12	1396
	Rate	<b>3.9</b>	<b>5.3</b>	<b>4.7</b>	<b>3.8</b>	<b>4.4</b>	<b>7.7</b>	<b>11.4</b>	<b>11.8</b>	<b>12.4</b>	<b>12.4</b>	<b>4.6</b>
1995-95	No.	59	65	112	66	101	114	105	176	47	122	2733
	Rate	<b>7.4</b>	<b>8.4</b>	<b>11.1</b>	<b>6.8</b>	<b>15.9</b>	<b>15.5</b>	<b>45.3</b>	<b>48.0</b>	<b>107.8</b>	<b>118.2</b>	<b>9.0</b>
1995-96	No.	66	97	122	103	114	120	110	203	44	111	3031
	Rate	<b>7.8</b>	<b>11.8</b>	<b>11.6</b>	<b>10.1</b>	<b>17.5</b>	<b>16.1</b>	<b>43.6</b>	<b>51.9</b>	<b>94.9</b>	<b>100.3</b>	<b>9.9</b>
1996-97	No.	34	67	35	50	31	48	21	43	10	22	1525
	Rate	<b>3.7</b>	<b>7.5</b>	<b>3.2</b>	<b>4.7</b>	<b>4.7</b>	<b>6.4</b>	<b>7.6</b>	<b>10.3</b>	<b>20.5</b>	<b>18.4</b>	<b>4.9</b>
1997-98	No.	33	43	67	85	40	50	35	52	15	20	1650
	Rate	<b>3.3</b>	<b>4.5</b>	<b>5.9</b>	<b>7.7</b>	<b>5.9</b>	<b>6.6</b>	<b>11.7</b>	<b>11.7</b>	<b>28.0</b>	<b>15.2</b>	<b>5.4</b>

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 290-339

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

There were 363 hospital separations for people over 55 years with mental disorders in 1997-98 (156 males, 207 females). This represents 22 percent of all separations for mental disorders for that year. Mean length of stay for mental disorders for ACT residents over 50 years was 15.2 days. In 1997-98, there were 40 separations for senile and presenile organic psychotic disorders (18 males and 22 females). Separation rates increased substantially with age. Very few separations for these conditions involved persons aged less than 50 years. Age specific rates began to exceed the overall population's rate from 65 years of age. While women accounted for the majority of separations, there was no clear difference in age specific rates.

**Table 50: Separations for senile and presenile organic psychotic conditions, by age, by sex,**

**ACT, 1993-98**

Year	Diagnos.	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	Princip.				1			4	4	10	14	3	1	37
	Second.	0	0	0	0	1	4	6	4	22	45	10	19	111
	Total				1	1	4	10	8	32	59	13	20	148
	Rate	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.1</b>	<b>0.1</b>	<b>0.4</b>	<b>1.6</b>	<b>1.1</b>	<b>14.6</b>	<b>16.9</b>	<b>32.2</b>	<b>20.6</b>	<b>0.5</b>
1994-95	Princip.					1		6	5	5	14	6	15	52
	Second.	0	0	0	0	1	1	15	6	31	39	16	46	155
	Total					2	1	21	11	36	53	22	61	207
	Rate	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.2</b>	<b>0.1</b>	<b>3.3</b>	<b>1.5</b>	<b>15.5</b>	<b>14.5</b>	<b>50.5</b>	<b>59.1</b>	<b>0.7</b>
1995-96	Princip.					1	1	6	6	5	11	3	6	39
	Second.	0	0	0	0	2	1	10	9	19	42	16	26	125
	Total					3	2	16	15	24	53	19	32	164
	Rate	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.3</b>	<b>0.2</b>	<b>2.5</b>	<b>2.0</b>	<b>9.5</b>	<b>13.6</b>	<b>41.0</b>	<b>28.9</b>	<b>0.5</b>
1996-97	Princip.	1						5	1	8	6	3	8	32
	Second.	0	0	0	1	0	1	16	8	29	43	12	46	156
	Total	1			1		1	21	9	37	49	15	54	188
	Rate	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.1</b>	<b>0.0</b>	<b>0.1</b>	<b>3.2</b>	<b>1.2</b>	<b>13.5</b>	<b>11.7</b>	<b>30.7</b>	<b>45.1</b>	<b>0.6</b>
1997-98	Princip.							2	4	12	8		8	40
	Second.	0	0	0	2	4	2	14	13	29	47	12	38	161
	Total				2	4	4	20	17	41	55	12	46	201
	Rate	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.2</b>	<b>0.4</b>	<b>0.4</b>	<b>3.0</b>	<b>2.2</b>	<b>13.7</b>	<b>12.4</b>	<b>22.4</b>	<b>34.9</b>	<b>0.7</b>

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 290-294

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

Separation rates for neuroses, personality disorders and other non-psychotic mental disorders tended to increase with age (refer Table 51). There was no clear difference between separation rates for males and females.

**Table 51: Separation rates for neuroses, personality disorders and other non-psychotic mental disorders, ACT, 1993-98**

Year	Diagnos.	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	Princip.	183	238	12	7	21	9	6	13	2	12	1		504
	Second.	272	252	35	23	48	21	32	49	16	25	2	11	786
	Total	455	490	47	30	69	30	38	62	18	37	3	11	1290
	Rate	<b>3.7</b>	<b>4.0</b>	<b>6.2</b>	<b>4.2</b>	<b>7.1</b>	<b>3.2</b>	<b>6.2</b>	<b>8.7</b>	<b>8.2</b>	<b>10.6</b>	<b>7.4</b>	<b>11.3</b>	<b>4.3</b>
1994-95	Princip.	198	254	12	11	11	9	4	10	9	21	3	5	547
	Second.	346	319	27	22	61	25	54	48	21	52	16	28	1019
	Total	544	573	39	33	72	34	58	58	30	73	19	33	1566
	Rate	<b>4.4</b>	<b>4.7</b>	<b>4.9</b>	<b>4.3</b>	<b>7.1</b>	<b>3.5</b>	<b>9.1</b>	<b>7.9</b>	<b>13.0</b>	<b>19.9</b>	<b>43.6</b>	<b>32.0</b>	<b>5.2</b>
1995-96	Princip.	154	290	8	18	13	18	10	6	4	6	3	6	536
	Second.	442	401	30	39	72	34	51	50	32	61	7	23	1242
	Total	596	691	38	57	85	52	61	56	36	67	10	29	1778
	Rate	<b>4.8</b>	<b>5.6</b>	<b>4.5</b>	<b>6.9</b>	<b>8.1</b>	<b>5.1</b>	<b>9.4</b>	<b>7.5</b>	<b>14.3</b>	<b>17.1</b>	<b>21.6</b>	<b>26.2</b>	<b>5.8</b>
1996-97	Princip.	198	296	15	27	7	8	5	11	2	4	2		575
	Second.	474	484	38	43	64	64	88	71	63	79	8	29	1505
	Total	672	780	53	70	71	72	93	82	65	83	10	29	2080
	Rate	<b>5.5</b>	<b>6.4</b>	<b>5.7</b>	<b>7.9</b>	<b>6.5</b>	<b>6.8</b>	<b>14.0</b>	<b>10.9</b>	<b>23.7</b>	<b>19.9</b>	<b>20.5</b>	<b>24.2</b>	<b>6.8</b>
1997-98	Princip.	172	256	13	16	17	18	5	11	5	14	4	3	534
	Second.	432	522	50	49	92	89	89	94	83	109	18	58	1685
	Total	604	778	63	65	109	107	94	105	88	123	22	61	2219
	Rate	<b>5.0</b>	<b>6.5</b>	<b>6.3</b>	<b>6.7</b>	<b>9.6</b>	<b>9.7</b>	<b>14.0</b>	<b>13.9</b>	<b>29.4</b>	<b>27.6</b>	<b>41.1</b>	<b>46.3</b>	<b>7.2</b>

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 300-316

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

## Depression

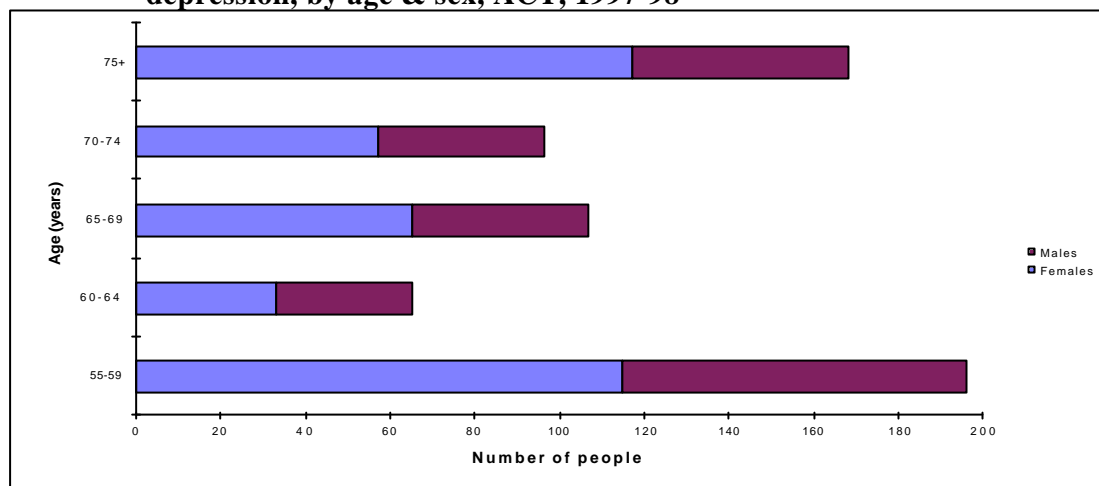
Depression is a condition which affects a person's daily life, general health and quality of life. The Second National Mental Health Plan has identified depression as a key issue to be addressed and has already started to develop a National Depression Action Plan. The National Health Survey



1995 (self-reported questionnaire) found that people in the ACT suffered from this condition more than people in Australia generally. Older people who are isolated, disabled or frail are at risk of developing depression.

In 1997-98, 387 females and 245 males over 55 years were separated from ACT hospitals for a principal or secondary diagnosis of depression. The age groups of 55-59 and over 75 years predominated.

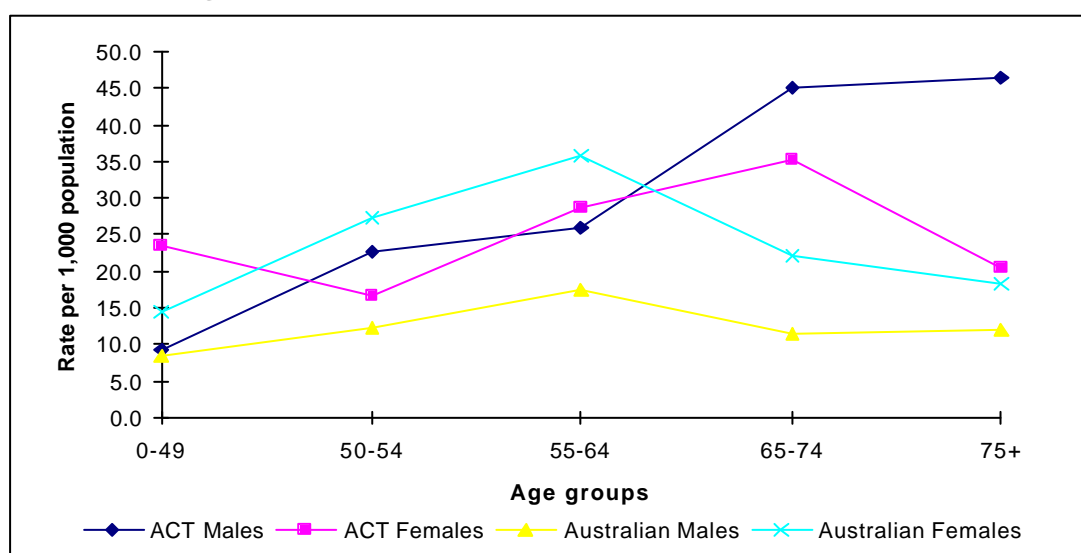
**Figure 14: No. of separations, people 55 yrs & over, principal or secondary diagnosis of depression, by age & sex, ACT, 1997-98**



Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

The National Health Survey revealed that ACT residents had higher age-sex specific rates for self reported depression in most categories than Australians generally (refer Figure 15).

**Figure 15: Age-sex specific rates, self-reported depression as a short term and/or long term condition, ACT and Australia, 1995**



Source: ABS, National Health Survey 1995

### Alzheimer's disease

Alzheimer's disease is a disorder of the nervous system and is not classified as a mental disorder. Dementia resulting from Alzheimer's disease is classified as a mental disorder, however. Since 1993, separation rates for Alzheimer's disease were low, and most of these separations were for

older persons (refer Table 52). Separation rates for this disorder will probably rise as the population ages.

**Table 52: Separations with a diagnosis of Alzheimers Disease, by age and sex, ACT, 1993- 98**

Year	Diagnos.	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	P
1993-94	Princip.		2						1					3
	Second.	0	0	0	0	1	0	1	1	2	1	1	0	7
	Total		2			1		1	2	2	1	1		10
	Rate	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.3	0.9	0.3	2.5	0.0	0.0
1994-95	Princip.													0
	Second.	0	0	0	0	0	0	0	2	2	6	1	0	11
	Total								2	2	6	1		11
	Rate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.9	1.6	2.3	0.0	0.0
1995-96	Princip.													0
	Second.	0	0	0	0	0	0	5	1	4	4	0	1	15
	Total							5	1	4	4		1	15
	Rate	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.1	1.6	1.0	0.0	0.9	0.0
1996-97	Princip.									1				1
	Second.	0	0	0	0	0	1	0	0	3	1	0	3	8
	Total						1			4	1		3	9
	Rate	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	1.5	0.2	0.0	2.5	0.0
1997-98	Princip.													0
	Second.	0	0	0	0	0	0	1	4	6	11	0	8	30
	Total							1	4	6	11		8	30
	Rate	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	2.0	2.5	0.0	6.1	0.1

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 331.0

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

## 7.5 Diabetes mellitus

Diabetes mellitus is a condition of considerable public health significance that affects at least half a million Australians (some estimates are as high as 700,000). It is associated with significant human and financial cost to the community and its prevalence is likely to increase significantly as the population ages. People from low socioeconomic backgrounds (who are less likely to follow good dietary habits), those from certain racial groups such as Indigenous Australians, those born in Southern Europe, Pacific Islanders, Asians, and the elderly are more likely to be affected. Indigenous people have a prevalence of diabetes mellitus approximately five times that of other Australians.

In 1997, the ACT had 27 deaths (11 males, 16 females) where diabetes mellitus was an underlying cause. Ten of the males and 15 of the females were over 55 years. Between 1993 and 97, over 97 per cent of people for whom diabetes was an underlying cause of death were aged 35 or more. Throughout this period, the median age at death for both sexes was well over 65 years. One reason for the concentration of deaths in older age groups is that the prevalence of diabetes increases with age as older people develop the Type 2 form.

It is not easy to gauge the incidence of diabetes, since most people are diagnosed and treated by their general practitioner and data concerning these visits is not extensive. The National Health Survey 1995 results estimated between approximately 4,300 and 6,000 people had diabetes in the ACT very few of whom were under 25 years of age. Diabetes estimates such as these may well be under estimates as they do not include those whose existing diabetes or high blood sugar levels are not yet diagnosed. Hospital separation data will give an indication of acute occurrences of the disease however. There were 3028 separations from ACT hospitals for diabetes mellitus related episodes in 1997-98 (principal and secondary diagnosis). Rates for diagnoses of diabetes mellitus

increased substantially with age (refer Table 53). In almost all years, rates for males were higher than rates for females in older people. Of these, 2,227 were for people over 55 years (74%). The ALOS for all separations with a principal diagnosis of diabetes was 4.1 days (4.7 days for people over 55 years).

**Table 53: Separations for diabetes mellitus, by age and sex, ACT 1997-98**

Year	Diagnos.	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	Princip.	60	82	10	8	26	19	33	29	13	14	2	3	299
	Second.	117	106	47	40	155	124	253	172	149	167	13	48	1391
	Total	177	188	57	48	181	143	286	201	162	181	15	51	1690
	<b>Rate</b>	<b>1.4</b>	<b>1.5</b>	<b>7.5</b>	<b>6.6</b>	<b>18.6</b>	<b>15.2</b>	<b>46.4</b>	<b>28.1</b>	<b>74.1</b>	<b>51.9</b>	<b>37.2</b>	<b>52.6</b>	<b>5.6</b>
1994-95	Princip.	80	66	5	1	27	11	30	10	13	10	1	4	258
	Second.	142	140	103	39	205	140	314	249	165	142	28	43	1710
	Total	222	206	108	40	232	151	344	259	178	152	29	47	1968
	<b>Rate</b>	<b>1.8</b>	<b>1.7</b>	<b>13.5</b>	<b>5.2</b>	<b>23.0</b>	<b>15.5</b>	<b>54.1</b>	<b>35.3</b>	<b>76.8</b>	<b>41.5</b>	<b>66.5</b>	<b>45.5</b>	<b>6.5</b>
1995-96	Princip.	77	68	4	7	26	16	20	15	11	16	3	1	264
	Second.	176	184	62	38	238	145	337	261	164	183	42	65	1895
	Total	253	252	66	45	264	161	357	276	175	199	45	66	2159
	<b>Rate</b>	<b>2.0</b>	<b>2.0</b>	<b>7.8</b>	<b>5.5</b>	<b>25.2</b>	<b>15.9</b>	<b>54.8</b>	<b>37.1</b>	<b>69.4</b>	<b>50.9</b>	<b>97.1</b>	<b>59.6</b>	<b>7.0</b>
1996-97	Princip.	47	57	6	9	20	12	15	25	11	15	1	1	219
	Second.	187	234	105	61	268	184	422	259	270	240	35	65	2330
	Total	234	291	111	70	288	196	437	284	281	255	36	66	2549
	<b>Rate</b>	<b>1.9</b>	<b>2.4</b>	<b>12.0</b>	<b>7.9</b>	<b>26.5</b>	<b>18.6</b>	<b>65.8</b>	<b>37.8</b>	<b>102.3</b>	<b>61.1</b>	<b>73.8</b>	<b>55.1</b>	<b>8.3</b>
1997-98	Princip.	84	50	7	4	18	10	27	20	15	12	2	6	255
	Second.	189	251	136	80	303	200	530	336	307	273	62	106	2773
	Total	273	301	143	84	321	210	557	356	322	285	64	112	3028
	<b>Rate</b>	<b>2.2</b>	<b>2.5</b>	<b>14.3</b>	<b>8.7</b>	<b>28.3</b>	<b>19.1</b>	<b>82.8</b>	<b>47.0</b>	<b>107.7</b>	<b>64.1</b>	<b>119.6</b>	<b>85.0</b>	<b>9.9</b>

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 250

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

**Table 54: Principle & secondary diagnosis separations for diabetes, all ACT hospitals, 1997-98**

Age group	Males	Females	Persons	Ave. lgth. of stay*
55-64	321	210	531	-
65-74	557	356	913	-
75+	386	397	783	-
<b>Total 55 years and over</b>	<b>1264</b>	<b>963</b>	<b>2227</b>	<b>4.703</b>
<b>Total of all separations</b>	<b>1680</b>	<b>1348</b>	<b>3028</b>	<b>4.097</b>

Note: Includes non ACT residents

\* Excludes separations with length of stay 90 days and longer.

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

## 7.6 Respiratory disorders

In 1997, 128 ACT residents died of respiratory disorders. Approximately 91 per cent of these people were 50 years or more, and 72 per cent were 75 years of more (37 males, 55 females). From 55 years of age, separation rates for principal diagnoses of respiratory disorders begin to exceed rates for the whole population (see Table 55). Age specific rates for males usually exceeded those for females. For both sexes, rates were highest in the oldest age groups (over 75 years). There were some fluctuations in separation rates over time. In 1997-98, the age specific separation rate for the oldest males exceeded 100 per 1,000. Separation rates for respiratory disorders are likely to be influenced by air quality. Changes in air pollution over time, as well as changes in lifestyle choices such as smoking, will affect these separation rates.

**Table 55: Separations, principal diagnosis of respiratory disorders, by age, by sex, ACT, 1993-98**

Year		0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	P
1993-94	No.	1520	1219	53	54	110	106	165	177	126	123	24	34	3711
	Rate	12.3	9.9	7.0	7.5	11.3	11.2	26.8	24.7	57.6	35.3	59.5	35.1	12.4
1994-95	No.	1470	1156	66	60	148	125	229	184	132	120	17	48	3755
	Rate	11.9	9.4	8.3	7.8	14.6	12.8	36.0	25.1	57.0	32.7	39.0	46.5	12.4
1995-96	No.	1408	1144	68	46	109	128	170	164	130	112	39	40	3558
	Rate	11.4	9.3	8.0	5.6	10.4	12.6	26.1	22.1	51.6	28.6	84.1	36.2	11.6
1996-97	No.	1381	1138	63	50	135	118	199	180	167	132	38	56	3657
	Rate	11.2	9.3	6.8	5.6	12.4	11.2	29.9	23.9	60.8	31.6	77.9	46.7	11.9
1997-98	No.	1354	1128	80	61	158	113	220	192	229	199	57	80	3871
	Rate	11.1	9.4	8.0	6.3	13.9	10.3	32.7	25.4	76.6	44.7	106.5	60.7	12.6

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 460-519

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

Many of the separations for acute respiratory infections involve children. This category includes acute sinusitis and acute tonsillitis. For older persons, age specific separation rates did not regularly approach or exceed the crude separation rates for these infections until 75 years or more (refer Table 56). There was no consistent difference between separation rates for males and females.

**Table 56: Age-sex specific separation rates, acute respiratory infections, ACT hospitals, 1993-98**

Year	Diagnos.	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	P
1993-94	Princip.	313	190		5	2	6	1	2		5	1		525
	Second.	141	139	3	2	2	6	4	8	4	3	1	1	314
	Total	454	329	3	7	4	12	5	10	4	8	2	1	839
	Rate	3.7	2.7	0.4	1.0	0.4	1.3	0.8	1.4	1.8	2.3	5.0	1.0	2.8
1994-95	Princip.	315	199	5	5	3	2	8	6	6	2	1		552
	Second.	159	130	7	4	5	6	10	8	6	7	0	0	342
	Total	474	329	12	9	8	8	18	14	12	9	1		894
	Rate	3.8	2.7	1.5	1.2	0.8	0.8	2.8	1.9	5.2	2.5	2.3	0.0	2.9
1995-96	Princip.	366	239	3	1		2	7	2	2	2	1	2	627
	Second.	160	150	2	2	3	5	11	10	1	5	2	0	351
	Total	526	389	5	3	3	7	18	12	3	7	3	2	978
	Rate	4.3	3.1	0.6	0.4	0.3	0.7	2.8	1.6	1.2	1.8	6.5	1.8	3.2
1996-97	Princip.	284	182	3	1	2	2	3	2	4	4	1	3	491
	Second.	125	140	2	3	4	7	4	6	4	15	1	4	315
	Total	409	322	5	4	6	9	7	8	8	19	2	7	806
	Rate	3.3	2.6	0.5	0.5	0.6	0.9	1.1	1.1	2.9	4.6	4.1	5.8	2.6
1997-98	Princip.	331	240	4	2	4	6	3	5	7	6	1	4	613
	Second.	159	179	8	2	9	9	12	9	5	8	0	5	405
	Total	490	419	12	4	13	15	15	14	12	14	1	9	1018
	Rate	4.0	3.5	1.2	0.4	1.1	1.4	2.2	1.9	4.0	3.1	1.9	6.8	3.3

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 460-466

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

Age specific separation rates for other diseases of the upper respiratory tract declined with age. This category includes deviated nasal septum, nasal polyps, and chronic pharyngitis. In most age groups, separation rates for males exceeded those for females.

**Table 57: Age-sex specific separation rates, other diseases of the upper respiratory tract, ACT hospitals, 1993-98**

Year	Diagnos.	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	Princip.	642	548	25	16	33	14	19	19	4	5			1325
	Second.	79	47	0	5	6	5	4	3	4	1	0	0	154
	Total	721	595	25	21	39	19	23	22	8	6			1479
	Rate	<b>5.8</b>	<b>4.9</b>	<b>3.3</b>	<b>2.9</b>	<b>4.0</b>	<b>2.0</b>	<b>3.7</b>	<b>3.1</b>	<b>3.7</b>	<b>1.7</b>	<b>0.0</b>	<b>0.0</b>	<b>4.9</b>
1994-95	Princip.	592	563	23	20	24	31	23	14	3	2			1295
	Second.	108	70	5	4	11	3	9	5	3	1	0	0	219
	Total	700	633	28	24	35	34	32	19	6	3			1514
	Rate	<b>5.7</b>	<b>5.1</b>	<b>3.5</b>	<b>3.1</b>	<b>3.5</b>	<b>3.5</b>	<b>5.0</b>	<b>2.6</b>	<b>2.6</b>	<b>0.8</b>	<b>0.0</b>	<b>0.0</b>	<b>5.0</b>
1995-96	Princip.	522	494	24	12	36	32	24	10	3	6	1	1	1165
	Second.	92	60	3	3	7	5	10	12	1	1	0	2	196
	Total	614	554	27	15	43	37	34	22	4	7	1	3	1361
	Rate	<b>5.0</b>	<b>4.5</b>	<b>3.2</b>	<b>1.8</b>	<b>4.1</b>	<b>3.6</b>	<b>5.2</b>	<b>3.0</b>	<b>1.6</b>	<b>1.8</b>	<b>2.2</b>	<b>2.7</b>	<b>4.4</b>
1996-97	Princip.	589	564	29	16	47	31	32	9	3	3			1323
	Second.	105	87	6	6	18	7	6	5	5	7	1	4	257
	Total	694	651	35	22	65	38	38	14	8	10	1	4	1580
	Rate	<b>5.6</b>	<b>5.3</b>	<b>3.8</b>	<b>2.5</b>	<b>6.0</b>	<b>3.6</b>	<b>5.7</b>	<b>1.9</b>	<b>2.9</b>	<b>2.4</b>	<b>2.0</b>	<b>3.3</b>	<b>5.1</b>
1997-98	Princip.	572	503	39	21	45	30	22	20	7	5			1264
	Second.	130	87	12	6	8	8	18	11	3	8	0	4	295
	Total	702	590	51	27	53	38	40	31	10	13			1559
	Rate	<b>5.8</b>	<b>4.9</b>	<b>5.1</b>	<b>2.8</b>	<b>4.7</b>	<b>3.4</b>	<b>5.9</b>	<b>4.1</b>	<b>3.3</b>	<b>2.9</b>	<b>0.0</b>	<b>3.0</b>	<b>5.1</b>

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 470-478

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

Separation rates for pneumonia and influenza increase substantially with age (refer Table 58). In most years, separation rates for males over 75 years were higher than those for females. The high separation rates for the aged illustrate the importance of vaccination against influenza and pneumonia for older persons, especially if they suffer other health problems such as heart disease.

**Table 58: Age-sex specific separation rates, pneumonia and influenza, ACT, 1993-98**

Year	Diagnos.	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	Princip.	139	121	8	9	20	24	51	33	46	39	12	14	516
	Second.	59	30	11	6	27	16	37	25	50	21	43	13	338
	Total	198	151	19	15	47	40	88	58	96	60	55	27	854
	Rate	<b>1.6</b>	<b>1.2</b>	<b>2.5</b>	<b>2.1</b>	<b>4.8</b>	<b>4.2</b>	<b>14.3</b>	<b>8.1</b>	<b>43.9</b>	<b>17.2</b>	<b>136.3</b>	<b>27.8</b>	<b>2.8</b>
1994-95	Princip.	166	104	7	7	28	28	62	42	35	36	10		525
	Second.	52	44	5	6	19	16	40	29	35	31	8	30	315
	Total	218	148	12	13	47	44	102	71	70	67	18	30	840
	Rate	<b>1.8</b>	<b>1.2</b>	<b>1.5</b>	<b>1.7</b>	<b>4.7</b>	<b>4.5</b>	<b>16.0</b>	<b>9.7</b>	<b>30.2</b>	<b>18.3</b>	<b>41.3</b>	<b>29.1</b>	<b>2.8</b>
1995-96	Princip.	150	102	11	5	30	14	36	45	44	35	14	18	504
	Second.	53	35	9	8	14	17	26	24	39	31	9	12	277
	Total	203	137	20	13	44	31	62	69	83	66	23	30	781
	Rate	<b>1.6</b>	<b>1.1</b>	<b>2.4</b>	<b>1.6</b>	<b>4.2</b>	<b>3.1</b>	<b>9.5</b>	<b>9.3</b>	<b>32.9</b>	<b>16.9</b>	<b>49.6</b>	<b>27.1</b>	<b>2.5</b>
1996-97	Princip.	160	137	9	9	27	24	53	42	55	48	12	30	606
	Second.	60	57	8	6	24	12	38	32	55	34	11	23	360
	Total	220	194	17	15	51	36	91	74	110	82	23	53	966
	Rate	<b>1.8</b>	<b>1.6</b>	<b>1.8</b>	<b>1.7</b>	<b>4.7</b>	<b>3.4</b>	<b>13.7</b>	<b>9.8</b>	<b>40.1</b>	<b>19.7</b>	<b>47.1</b>	<b>44.2</b>	<b>3.1</b>
1997-98	Princip.	156	143	19	14	30	24	49	48	75	83	26	41	708
	Second.	53	58	15	5	28	26	47	37	48	34	20	28	399
	Total	209	201	34	19	58	50	96	85	123	117	46	69	1107
	Rate	<b>1.7</b>	<b>1.7</b>	<b>3.4</b>	<b>2.0</b>	<b>5.1</b>	<b>4.5</b>	<b>14.3</b>	<b>11.2</b>	<b>41.1</b>	<b>26.3</b>	<b>86.0</b>	<b>52.4</b>	<b>3.6</b>

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 480-487

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

Separation rates for pneumoconioses and other lung diseases due to external agents were low but tended to rise with age (refer Table 59). This category includes coal worker's lung, asbestosis and silicosis. In most years, age specific rates for males were higher than those for females. This may have been due to greater occupational exposure to agents such as asbestos, coal and

silicates. Sex differences between these rates may change over time as women move into traditionally male dominated professions. Greater awareness of occupational health and safety principals may cause a long term decline in these conditions.

**Table 59: Age-sex specific separation rates, pneumoconioses and other lung diseases due to external agents, ACT, 1993-98**

Year	Diagnos.	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	Princip.	6	1	1	2	2	2	7	5	1	2	1	2	22
	Second.	7	3	1	2	3	2	8	5	5	6	1	2	45
	Total	13	4	2	2	5	2	15	5	6	8	1	4	67
	Rate	0.1	0.0	0.3	0.3	0.5	0.2	2.4	0.7	2.7	2.3	2.5	4.1	0.2
1994-95	Princip.	6	2	1	1	4	3	3	1	2	2	1	1	26
	Second.	10	6	1	3	4	1	11	4	2	2	2	0	46
	Total	16	8	1	4	8	4	14	5	4	4	3	1	72
	Rate	0.1	0.1	0.1	0.5	0.8	0.4	2.2	0.7	1.7	1.1	6.9	1.0	0.2
1995-96	Princip.	8	2	2	1	2	1	2	1	2	1	1	1	23
	Second.	5	1	1	1	1	1	16	5	5	2	5	1	44
	Total	13	3	3	1	3	2	18	6	7	3	6	2	67
	Rate	0.1	0.0	0.3	0.1	0.3	0.2	2.7	0.8	2.5	0.7	12.3	1.7	0.2
1996-97	Princip.	2	6	1	1	2	2	4	3	3	1	1	1	21
	Second.	15	8	1	0	3	2	15	3	15	6	3	2	73
	Total	17	14	2	1	5	2	19	3	18	7	4	3	94
	Rate	0.1	0.1	0.2	0.0	0.5	0.2	2.9	0.4	6.6	1.7	8.2	2.5	0.3
1997-98	Princip.	6	3	3	2	2	1	5	1	4	12	7	1	32
	Second.	17	10	2	0	6	1	12	7	15	12	1	5	88
	Total	23	13	5	2	8	1	17	8	19	12	8	6	120
	Rate	0.2	0.1	0.5	0.0	0.7	0.1	2.5	1.1	6.4	2.7	15.0	4.6	0.4

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 500-508

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

### Chronic pulmonary obstructive disease

From 55 years of age separation rates for chronic pulmonary obstructive disease consistently exceed the rate for the total population (refer Table 60). In older age groups, male separation rates usually exceeded those for females.

**Table 60: Separations, chronic obstructive pulmonary disease, no. & rates, ACT, 1993-98**

Year	Diagno	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	Principl.	345	299	6	20	37	47	63	97	55	50	7	10	1036
	Second	107	110	13	21	42	52	139	74	114	75	22	16	785
	Total	452	409	19	41	79	99	202	171	169	125	29	26	1821
	Rate	3.7	3.3	2.5	5.7	8.1	10.5	32.8	23.9	77.3	35.9	71.9	26.8	6.1
1994-95	Principl.	336	237	16	20	51	40	98	92	59	58	5	17	1029
	Second	205	261	19	38	97	56	197	117	113	84	24	34	1245
	Total	541	498	35	58	148	96	295	209	172	142	29	51	2274
	Rate	4.4	4.1	4.4	7.5	14.6	9.8	46.4	28.5	74.2	38.7	66.5	49.4	7.5
1995-96	Principl.	307	261	9	22	29	43	72	73	49	47	13	13	938
	Second	283	298	35	33	106	86	246	144	149	133	47	24	1584
	Total	590	559	44	55	135	129	318	217	198	180	60	37	2522
	Rate	4.8	4.5	5.2	6.7	12.9	12.7	48.8	29.2	78.5	46.0	129.4	33.4	8.2
1996-97	Principl.	283	209	12	15	33	44	74	90	74	62	20	13	929
	Second	371	520	56	60	147	97	341	196	265	165	38	38	2294
	Total	654	729	68	75	180	141	415	286	339	227	58	51	3223
	Rate	5.3	5.9	7.4	8.4	16.6	13.3	62.4	38.0	123.5	54.4	118.9	42.6	10.5
1997-98	Principl.	210	193	8	17	50	39	111	92	92	64	16	21	913
	Second	441	678	71	105	195	157	400	284	369	236	63	64	3063
	Total	651	871	79	122	245	196	511	376	461	300	79	85	3976
	Rate	5.3	7.3	7.9	12.6	21.6	17.8	75.9	49.7	154.1	67.4	147.7	64.5	12.9

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 490-496

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

Separation rates for other diseases of the respiratory system rose with age (refer Table 61). This category includes empyema, pleurisy, and pneumothorax. Male rates tended to exceed female rates in most age categories.

**Table 61: Age-sex specific separation rates, other diseases of the respiratory system, ACT, 1993-98**

Year	Diagnos.	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	Princip.	75	60	13	4	16	15	24	26	20	22	4	8	287
	Second.	88	60	13	13	36	29	55	43	44	37	3	13	434
	Total	163	120	26	17	52	44	79	69	64	59	7	21	721
	<b>Rate</b>	<b>1.3</b>	<b>1.0</b>	<b>3.4</b>	<b>2.4</b>	<b>5.3</b>	<b>4.7</b>	<b>12.8</b>	<b>9.6</b>	<b>29.3</b>	<b>16.9</b>	<b>17.3</b>	<b>21.7</b>	<b>2.4</b>
1994-95	Princip.	55	51	15	7	38	21	35	29	27	20		6	304
	Second.	113	86	15	10	52	40	83	71	55	57	11	24	617
	Total	168	137	30	17	90	61	118	100	82	77	11	30	921
	<b>Rate</b>	<b>1.4</b>	<b>1.1</b>	<b>3.8</b>	<b>2.2</b>	<b>8.9</b>	<b>6.3</b>	<b>18.6</b>	<b>13.6</b>	<b>35.4</b>	<b>21.0</b>	<b>25.2</b>	<b>29.1</b>	<b>3.0</b>
1995-96	Princip.	55	46	19	6	12	36	29	33	30	21	9	5	301
	Second.	108	98	18	19	44	39	88	78	68	63	12	22	657
	Total	163	144	37	25	56	75	117	111	98	84	21	27	958
	<b>Rate</b>	<b>1.3</b>	<b>1.2</b>	<b>4.0</b>	<b>2.8</b>	<b>5.1</b>	<b>7.1</b>	<b>17.6</b>	<b>14.8</b>	<b>35.7</b>	<b>20.1</b>	<b>43.0</b>	<b>22.5</b>	<b>3.1</b>
1996-97	Princip.	63	40	9	9	24	17	33	37	28	14	4	9	287
	Second.	109	98	25	21	70	43	116	115	116	96	34	44	887
	Total	172	138	34	30	94	60	149	152	144	110	38	53	1174
	<b>Rate</b>	<b>1.4</b>	<b>1.1</b>	<b>3.7</b>	<b>3.4</b>	<b>8.6</b>	<b>5.7</b>	<b>22.4</b>	<b>20.2</b>	<b>52.4</b>	<b>26.4</b>	<b>77.9</b>	<b>44.2</b>	<b>3.8</b>
1997-98	Princip.	79	46	7	7	27	14	30	26	44	41	7	13	341
	Second.	132	140	26	30	100	76	136	128	124	115	27	54	1088
	Total	211	186	33	37	127	90	166	154	168	156	34	67	1429
	<b>Rate</b>	<b>1.7</b>	<b>1.6</b>	<b>3.3</b>	<b>3.8</b>	<b>11.2</b>	<b>8.2</b>	<b>24.7</b>	<b>20.4</b>	<b>56.2</b>	<b>35.1</b>	<b>63.6</b>	<b>50.8</b>	<b>4.7</b>

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 510-519

Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

## 7.7 Asthma

Australia and New Zealand experience higher prevalence, morbidity and mortality rates from asthma than any other developed countries. Mortality and hospital morbidity data provide partial indicators for diagnosed asthma prevalence, but the data refer to acute episodes only and do not provide a true reflection of prevalence or incidence.

There were 5 asthma deaths in the ACT in 1996 and 6 in 1997 (of residents usually residing in the ACT). This was less than one percent of all ACT deaths (0.4%). In 1996, all deaths were for people over 50 years, but in 1997 only 3 were for people in this older age range.

Between 1993 and 1998, rates for separations with a principal or secondary diagnosis of asthma tended to rise with age and were usually higher for males (refer **Table 62**).

**Table 62: Separations for asthma, by age and sex, ACT, 1997-98**

Year	Diagnos.	0-49		50-54		55-64		65-74		75-84		85+		Total
		M	F	M	F	M	F	M	F	M	F	M	F	
1993-94	Princip.	332	284	3	11	7	13	8	30	7	10	1	2	708
	Second.	98	85	1	11	9	23	14	19	6	12	2	6	286
	Total	430	369	4	22	16	36	22	49	13	22	3	8	994
	Rate	<b>3.5</b>	<b>3.0</b>	<b>0.5</b>	<b>3.0</b>	<b>1.6</b>	<b>3.8</b>	<b>3.6</b>	<b>6.8</b>	<b>5.9</b>	<b>6.3</b>	<b>7.4</b>	<b>8.3</b>	<b>3.3</b>
1994-95	Princip.	318	213	6	9	10	20	13	26	4	16		3	638
	Second.	183	231	8	25	45	25	41	46	14	27	4	12	661
	Total	501	444	14	34	55	45	54	72	18	43	4	15	1299
	Rate	<b>4.1</b>	<b>3.6</b>	<b>1.8</b>	<b>4.4</b>	<b>5.4</b>	<b>4.6</b>	<b>8.5</b>	<b>9.8</b>	<b>7.8</b>	<b>11.7</b>	<b>9.2</b>	<b>14.5</b>	<b>4.3</b>
1995-96	Princip.	289	245	4	11	8	19	11	16	13	9	1	3	629
	Second.	255	282	21	25	49	52	51	54	30	47	10	6	882
	Total	544	527	25	36	57	71	62	70	43	56	11	9	1511
	Rate	<b>4.4</b>	<b>4.3</b>	<b>2.9</b>	<b>4.4</b>	<b>5.4</b>	<b>7.0</b>	<b>9.5</b>	<b>9.4</b>	<b>17.1</b>	<b>14.3</b>	<b>23.7</b>	<b>8.1</b>	<b>4.9</b>
1996-97	Princip.	268	194	8	11	10	19	5	12	7	13	1	3	551
	Second.	339	499	36	44	76	67	88	86	48	51	5	11	1350
	Total	607	693	44	55	86	86	93	98	55	64	6	14	1901
	Rate	<b>4.9</b>	<b>5.6</b>	<b>4.8</b>	<b>6.2</b>	<b>7.9</b>	<b>8.1</b>	<b>14.0</b>	<b>13.0</b>	<b>20.0</b>	<b>15.3</b>	<b>12.3</b>	<b>11.7</b>	<b>6.2</b>
1997-98	Princip.	197	183	4	11	13	17	21	18	10	16	3	12	505
	Second.	396	646	49	94	100	112	134	168	103	114	15	23	1954
	Total	593	829	53	105	113	129	155	186	113	130	18	35	2459
	Rate	<b>4.9</b>	<b>6.9</b>	<b>5.3</b>	<b>10.9</b>	<b>10.0</b>	<b>11.7</b>	<b>23.0</b>	<b>24.6</b>	<b>37.8</b>	<b>29.2</b>	<b>33.6</b>	<b>26.6</b>	<b>8.0</b>

Note: Rate per 1,000 population

Includes diagnoses ICD-9-CM 493

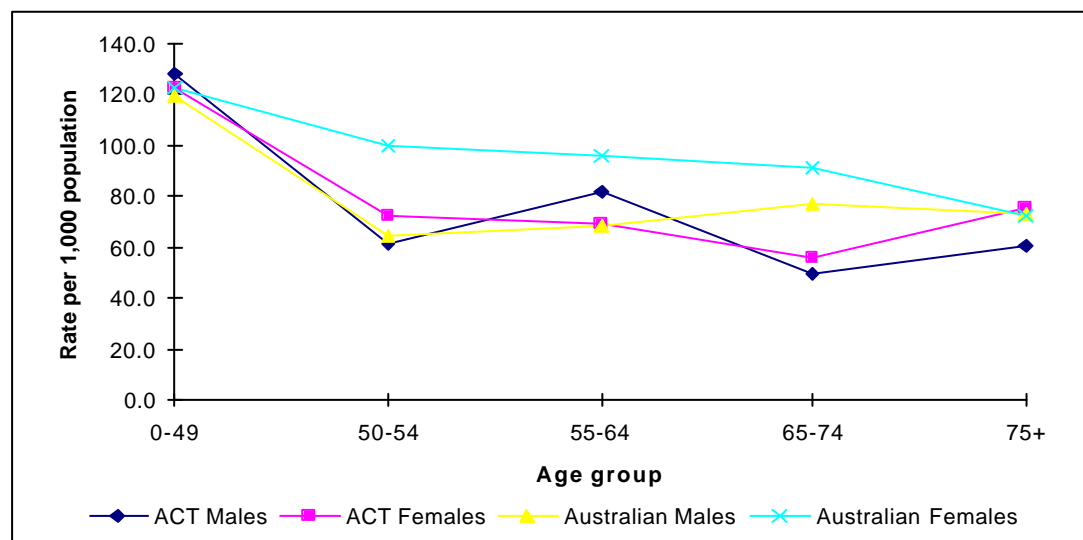
Source: ACT hospital morbidity dataset 1993-98, Confidentialised unit record file

ABS, Population by Age and Sex Australian States and Territories, Catalogue No. 3201.0

In 1997-98, there were 441 separations for known ACT residents with a principal diagnosis of asthma (87% of total separations), 95 (21.5%) of whom were aged 50 years or more. A further 407 separations were for ACT residents had a secondary diagnosis of asthma in people aged 50 years or more. For persons aged 50 years or more, the ALOS of separations with a principal diagnosis of asthma was 6.6 days for males and 7.2 days for females. For known ACT residents aged 50 or more, ALOS was 5.9 days for males and 7.4 days for females.

The National Health Survey 1995 estimated that the ACT had approximately 34,960 persons who reported asthma as a long-term condition (refer Figure 16). Approximately 11 per cent of these people were 50 years or more (1,800 males and 2,000 females). Those aged 50 years or more had lower rates for chronic asthma than the total ACT population.

**Figure 16: Age-sex specific rates, self reported asthma as long term and/or both recent and long term condition, ACT and Australia, 1995**



Source: ABS, National Health Survey 1995



## **7.8 Dental health**

Poor dental health can cause major discomfort, pain, and illness and may cause people to have a restricted unbalanced diet (eg. only eating soft foods).

The Dental Health Program administered by ACT Community Care, provides a range of services to promote good oral health, to prevent oral diseases and to treat existing disease. The program also offers prosthodontic services. Adult dental services are provided to concession card holders and their dependents. Dental services are also available to young people who have concession cards.

In 1998-99, the Program treated more than 3,100 people (42% males, 58% females) over 55 years of age. Just over a third were born in Australia, with other predominant groups coming from Great Britain (9%), Italy (6%), Greece (4%), Croatia (4%), Germany (3%) and Yugoslavia (3%). The predominance of people from these countries reflects early immigration policies. In years to come, it could be expected that more people from other regions, such as Asia will be seeking dental services for older people.

## **7.9 Emerging issues**

- Since chronic diseases such as dementia and arthritis are age-related, and the ACT population is ageing, the physical, financial and social loads of caring for older people will increase over time. This will affect service provision.
- Hospital utilisation will increase and lengths of stay may rise.
- The need for community based support will increase as people live longer, but live longer with disabilities.
- With changing foci in immigration policies over the years, services will need to prepare for older people from different ethnic origins and adapt their service delivery modes accordingly.

## **8. Carers**

Although being a principal carer can be very rewarding, the role can be highly stressful and time consuming. It may require dramatic changes to lifestyle, health status and quality of life. Levels of participation in the workforce, time for recreation and pursuing friendships, and access to regular income can be severely limited. Carers may experience financial hardship because of, for example, increased heating bills, extra wear and tear on clothing, and higher laundry costs. The caring role is often not the preferred career choice of a carer, and often carries a great personal cost.<sup>25</sup> This remains the case where caring is the preferred choice.

In Australia, over 90 percent of carers over 60 years are spouses of the person for whom care is given.<sup>26</sup> Older people also care for other members of their family. Australian studies have shown that grandmothers care for between a quarter and half of grandchildren of their working daughters.<sup>27</sup>

In the voluntary sector, older people also make a large contribution. The Australian Bureau of Statistics reported that, in 1995, 23 percent of the people who performed some voluntary work

over the past year were over 55 years. These older people contributed 14.1 million hours of voluntary work.<sup>28</sup>

For details of the results of the ABS Disability, Ageing and Carers Survey 1998, refer Section 6.2.3.

The ACT Department of Health and Community Care, in conjunction with the Commonwealth Department of Health and Aged Care (ACT Office), has produced a free booklet outlining care options for older people in the ACT and Queanbeyan.<sup>29</sup> It outlines major services available to aged persons and their carers. These include Home and Community Care (HACC) services, home help services, community services and day care programs, respite services, Assistance with Care and Housing for the Aged (ACHA), palliative care, hospice and hospital programs, and carer's allowance. Some of the services are detailed in the following section.

### **8.1 Emerging issues**

- Since chronic diseases such as dementia and arthritis are age-related, and the ACT population is ageing, then it can be assumed that the physical, financial and social loads of caring for older people will increase over time.

## **9. ACT programs and initiatives**

There is a wide array of health related services provided for older people in the ACT. The major services provided by the ACT Department of Health and Aged Care and ACT Community Care are summarised below.

### **9.1 ACT Department of Health and Community Care**

The Department is developing the ACT Aged Health Care Services Strategic Plan (refer Section 2.2). It is also providing funding and support for several initiatives including:

- The administration of a computer assisted telephone interview (CATI) health survey which is running from July to December 1999. Five hundred people aged 65 years or more (or their carers) will be interviewed. Data collected will allow for a rich data base on which to analyse trends, needs and gaps in services for older people in the Territory. Since the Department is running the survey in conjunction with the NSW Department of Health, data on the Southern region of NSW, whose population uses ACT services widely, will also be available.
- The Department has a contract with COTA ACT for the administration of the Seniors Card in the ACT. The Seniors Card is a discount card which can be used at participating businesses. Any ACT resident over the age of 60 years and not in paid employment for more than 20 hours a week is eligible to be a card holder. COTA negotiates with local businesses to participate in the scheme and promotes the card to the relevant target group. They also liaise with other States and Territory to negotiate reciprocal benefits for card holders. A new Seniors Card directory was published in April this year and launched by the Chief Minister. The Department provides funding of \$45,000 to administer the scheme. COTA is planning to launch the new card during Seniors Week (commencing 27 September 1999).
- supporting Diabetes Australia ACT to, for example conduct a yearly seminar for older members of Diabetes Australia ACT.

- arranging for interstate reciprocity for members of the ACT Taxi Subsidy Scheme (introduced on 1 July 1999). This allows people to travel by taxi in other states and receive the same concession as they receive in the ACT.
- supporting ageing parents of people with disabilities. Community Connections has been contracted to provide a range of integrated services to support families where an ageing carer has been providing care to a family member for over 30 years. This service (funded for 4 years under the Commonwealth State Disability Agreement CSDA) will provide assistance to ageing carers and their family member to explore options for long term support, including the development of transition plans to assist the individual to achieve independent living in the community.
- the Department provided non recurrent funding to the Australian Red Cross Meals on Wheels service to trial an innovative food services project in the ACT. The project trialled efficacy of nutritional screening through the self administration of an instrument ANSI (Australian Nutritional Screening Initiative) designed to alert the individual to his/her nutritional status. The ANSI was supported with a supplementary service, either a breakfast pack or assistance (including companionship) with the evening meal. The objective of the trial was to improve the nutritional status of at risk individuals in receipt of meals on wheels and to assess the nutritional, social and psychological outcomes of the provision of supplementary services. The Department is currently considering the report of the evaluation of the trial.
- the Department will provide non recurrent funding to Canberra Senior Citizen's Centre to assist with renovations to kitchen facilities which will allow for the provision of additional services to the clients of Canberra Seniors Centre. The Centre will match the government funding with fund raising and volunteer input.
- *releasing of the Palliative Care Plan 1999-2001*: The Minister for Health and Community Care, Mr Michael Moore MLA launched the ACT Palliative Care Plan 1999-2001 at the launch of the National Palliative Care Awareness Week in the ACT. This is the first such plan for the ACT which will assist in achieving seamless services appropriate to the needs of individuals, families and carers. The Plan aims to provide a broad framework to guide the future development of palliative care.
- contributing to the Forward Plan for Older People which is being developed by the Chief Minister's Department.

### **Healthpact**

Healthpact, within the Population Health area of the Department of Health and Community Care, aims to promote good health in the community by sponsoring various activities encouraging healthy behaviours. In 1998-99 it supported several projects specifically targeting older people. These included:

- *Active Australia/Ten Fit program* which provided fitness, exercise and nutrition programs suitable for people in retirement villages and hostels
- *Senior's Card program* was sponsored to the ACT Council on the Aged (COTA) with an accompanying "Diabetes, know the risk" promotion. Other projects by COTA for the International Year of Older Persons were also supported
- *Health and Happiness program* at the Belconnen Community Centre, which provided activities, information and gentle exercise for older people in the Belconnen region.

## **9.2 ACT Community Care**

### **Community Health Care Program**

The Community Health Care Program provides a range of services for people with acute, post acute, chronic and terminal disease and health problems associated with aging and disability. As key community health providers, staff aim to prevent illness and loss of functioning, maintain and restore independence, treat health problems and assist people to access services to meet their required needs.

For the 1998-99 year, ACT Community Care handled referrals from 561 people aged 50-64 years, 1,681 people aged 65-74 years and 3,108 people over 75 years. In total, they provided 90 percent of their services to people over 50 years. People over 65 years accounted for 39 percent of all services. Major reasons for referral for people over 50 years were community nursing, physiotherapy, Aged Care Assessment Team, day care, podiatry, Home Help and occupational therapy.

In October 1997 the Program in partnership with Home Help ACT Inc. established a single point of entry for both services through a central Intake and Assessment Team (IAU). The IAU provides advise, takes referrals and co-ordinates access through to service teams. Where people have complex care needs the IAU will undertake a comprehensive assessment which may include ACAT requirements to initiate other care options if required.

The IAU has a small team at The Canberra Hospital called Community Care LINK which co-ordinates hospital discharge and provides a quick response to either prevent hospitalisation or facilitate discharge. The team has limited ability to purchase short term home help support to assist people with high care needs in the immediate post discharge period.

The Program operates four day care centres from Belconnen, Dickson, Narrabundah, and Tuggeranong Health Centres and offers carers day respite for older chronically ill people. Centre staff are supported by volunteers and transport is offered if required.

The Program provides multidisciplinary services. During 1998-99 service teams provided 108,070 home and palliative care nursing visits, 5,637 attendances were recorded at nursing clinics, and 1332 people attended either the wound clinic or continence promotion centre. The majority of services were provided to older people

In addition 28,303 occasions of service were provided by therapy and counselling staff. This included home and clinic physiotherapy, occupational therapy, social work, nutrition and podiatry services. These services are targeted to the adult population and are complimented by various health promotion group activities. Due to limited resources, podiatry services criteria for access requires people to be a health care card holders. Innovative Programs during 1999 have included:

#### *Falls Prevention*

The Program evaluated the operation of the falls screening clinic, and supported the development of Dance Your Bones Program and the development of a clinical pathways for falls prevention. Further strategies are planned for 1999-2000.

*The Dance Your Bones Well Program:* aimed at preventing falls among older people in the Italian Community. The focus for the program was focusing on falls and osteoporosis in using traditional dance, singing, food and social interaction, to provide information and enhance mobility skills.

*Healthy Aging:* activities included: the Seniors Cafe in Tugggeranong to promote social and educational opportunities for older people; continence awareness activities and prostate awareness groups; “healthy matters for women over 60” which was a 12 week program covering a broad range of health related sessions; foot care awareness and promotion of care needs with shoe retail owners; and the distribution of pamphlets and posters.

*Healthy Ageing program* which is a joint program run by ACT Community Care and the ACT Division of General Practice, aims to advance and provide better quality care for older citizens in the ACT. The program encourages local general practitioners and ACT Community Care nurses to work as a team and assess the needs of patients 55 years and over with complex problems in the community. Assessments are conducted in the patient’s home and screens for diabetes, cardiovascular disease, dementia, glaucoma, osteoporosis and other conditions are undertaken. Issues such as medication use, depression, social isolation, carer stress, nutrition, falls prevention and the need for extra assistance to remain in the home are addressed. The team of GP, community nurse and patient and/or their carer then develop a care plan to ensure that patients and their carers are provided with appropriate support.

Over the past 6 months, some 31 clients have benefited from the program. Main issues identified were concerns about achieving daily living activities, risk of falling, mobility, home safety and home maintenance, loneliness and isolation, parent/carer stress, use of medications and nutrition.

#### *Nutrition and Exercise*

The program administered Walk and Talk programs to promote the benefits of healthy eating and exercise and emotional well being in the older community. They also held Stepping Out activities to promote safe exercise and awareness to reduce incidences of cardiovascular disease.

#### ***Reducing Disability***

The Program targets the reduction of disability through offering activities such as Living with Chronic Pain groups which focus on increasing level of confidence and independence. The Water Movers group also targets moderately and severely affected people to use water as a medium to promote fun and fitness.

#### ***Other health promotion activities***

The Program offers events such as an Open Day at Belconnen Health Centre for seniors involving all staff disciplines, which aim to enhance opportunities to socialise, become familiar with the Health Centre and its facilities and to consider healthy eating and living behaviours.

### **Disability Program**

Disability Program has a small number of clients within their Accommodation Support Service that are over or close to 50 (average about 3 clients). All have Individual Support Plans. The Plans specify client strengths and agreed priorities, goals and strategies designed to meet the needs and ambitions of a person with a disability receiving a service. In addition there are 2 community clients who are over 50. They receive services from the multidisciplinary team and also have Individual Plans.

Respite services offer respite to a number of clients who have very elderly parents. Four families receive additional respite on a regular basis due to the age of the parents.

The Independent Living Centre provides information, assessment and advice on equipment for people with disabilities, older people, their carers, advocates and other service providers. In the

1998-99 year, it assisted 304 people aged 51-60 years, 440 people aged 61-70 years and 1088 people aged over 71 years. These 1832 people represented 41 percent of its clientele. It also handled 1220 enquires from health professionals, family and carers of people over 51 years who make enquires on behalf of persons 51 and over.

### **9.3 Other**

#### **Three Year Forward Plan for Older People in the ACT**

The ACT Chief Minister's Department is coordinating the development of a three year plan for older people. The development phase is involving a whole of government approach and is encouraging the participation of key non-government groups such as the Council on the Ageing ACT. A discussion paper to raise the issues and consider options will be released in Seniors week 1999. This will be followed by extensive consultation and a draft plan in early 2000.

There are many non-government groups which assist and support older people and carers. Two major ones are:

#### **ACT Council on the Ageing**

*COTA ACT*, which aims to represent the interests of older people in the ACT, provides information and advice to the ACT Government on the effects of policy on older people; develops and advocates policies that will improve the lives of older people; and explains the impact of government policy to older people themselves and to the broader community. It administers the ACT Seniors Card, co-ordinates events during Seniors Week and produces a yearly, comprehensive Directory of Services. It has established a safety and security project (CLASP) in conjunction with Australian Federal Police, Firefighter and Ambulance Services; has a Housing Options Advisory Program; and is working with government on building a demonstration accessible and adaptable house. It is developing an Older Drivers Program in conjunction with the ACT Alcohol and Drug Program, St Johns Ambulance and the NRMA.

**Carers Association of the ACT** promotes, assists and enhances the well-being of carers in the ACT. It provides many services to carers, their families and friends including advocacy and lobbying, an information service (on lobbying, rights, entitlements and services), professional counselling, carer education and support programs, information via a library and newsletter, community education, regular group meetings, and policy and research development. It distributes free carer support kits to carers in the community.

## 10. Methodology

### Rates

Rates per 100,000 are calculated as follows:

$$\text{Rate} = N/P \cdot 100,000$$

(where N = number of events and P= population at risk of experiencing the event).

### Crude rates

Crude rates are calculated by dividing the number of events due to specific causes by the total mid-year population, and expressing the result as a rate (eg per 100,000 people in that population). Crude rates are useful for health service planning purposes. They indicate the actual rate of events for different causes, and when presented in a time series, they reflect the changes in age-structure and risk that are occurring in the population.

### Standardised rates

Age-standardised rates, on the other hand, take differences in age-structure into account, and can be used to compare rates between different populations that have different age-structures, or to compare rates in the same population over time. In this publication *direct* standardised rates for all causes combined have been sourced from ABS publications which use the 1991 Australian population (persons) as the standard population.

## 11. References

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## Health Series Publications

The Health Status Monitoring Epidemiology Unit of the Department of Health and Community Care has developed an on-going series of publications to inform health professionals, policy developers and the community on health status in the Territory. Information contained therein will assist in the development of appropriate policy and service delivery models, the evaluation of programs, and an understanding of how the ACT compares with Australia as a whole with regard health status.

- Number 1: *ACT's Health: A report on the health status of ACT residents*  
Carol Gilbert, Ursula White, October 1995
- Number 2: *The Epidemiology of Injury in the ACT*  
Carol Gilbert, Chris Gordon, February 1996
- Number 3: *Cancer in the Australian Capital Territory 1983-1992*  
Norma Briscoe, April 1996
- Number 4: *The Epidemiology of Asthma in the ACT*  
Carol Gilbert, April 1996
- Number 5: *The Epidemiology of Diabetes Mellitus in the ACT*  
Carol Gilbert, Chris Gordon, July 1996
- Number 6: *Developing a Strategic Plan for Cancer Services in the ACT*  
Kate Burns, June 1996
- Number 7: *The First Year of The Care Continuum and Health Outcomes Project*  
Bruce Shadbolt, June 1996
- Number 8: *The Epidemiology of Cardiovascular Disease in the ACT*  
Carol Gilbert, Ursula White, January 1997
- Number 9: *Health Related Quality of Life in the ACT: 1994-95*  
Darren Gannon, Chris Gordon, Brian Egloff, Bruce Shadbolt, February 1997
- Number 10: *Disability and Ageing in the ACT: An Epidemiological Review*  
Carol Gilbert, April 1997
- Number 11: *Mental Health in the ACT*  
Ursula White, Carol Gilbert, May 1997
- Number 12: *Aboriginal and Torres Strait Islander Health in the ACT*  
Norma Briscoe, Josie McConnell, Michelle Petersen, July 1997
- Number 13: *Health Indicators in the ACT: Measures of health status and health services in the ACT*  
Carol Kee (Gilbert), George Johansen, Ursula White, Josie McConnell, January 1998
- Number 14: *Health status of the ACT by statistical sub-divisions*  
April 1998
- Number 15: *Results from the 1996 ACT Secondary School Students' Survey*  
Hai Phung, George Bodilsen, Allison Webb, Norma Briscoe, June 1998
- Number 16: *Childhood Immunisation & Preventable Diseases in the ACT 1993-97*  
Hai Phung, Michelle Petersen, June 1998
- Number 17: *Health Related Quality of Life in the ACT 1994-97*  
Hai Phung, Ursula White, Brian Egloff, June 1998
- Number 18: *Maternal and Perinatal Status in the ACT*  
Maureen Bourne, Carol Kee, September 1998
- Number 19: *Health risk factors in the ACT*  
Carol Kee, Michelle Petersen, Kate Rockpool, October 1998
- Number 20: *Communicable Diseases in the ACT*  
Linda Halliday, Michelle Petersen, November 1998
- Number 21: *Illicit Drug Samples Seized in the ACT 1980-97*  
Dennis Pianca, November 1998
- Number 22: *Young People in the ACT*  
Linda Halliday, Josie McConnell, December 1998
- Number 23: *Health Status of Older People in the ACT*  
Carol Kee, George Bodilsen, November 1999