

Health Series
Number 11

Mental Health in the ACT

Ursula White
Carol Gilbert
George Johansen

Epidemiology Unit
Population Health Group
ACT Department of Health and Community Care

May 1997

ACKNOWLEDGEMENTS

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

The authors are particularly grateful to colleagues in the Department of Health and Community Care including Dr Bruce Shadbolt, Dr Doris Zonta, and the staff of the Epidemiology Unit for their support, advice and patience; the Performance Information Section for providing data; the Mental Health Services and the Mental Health Policy Team for information and expertise; and Public Affairs Section for publishing assistance.

A special thank you to Kelli Mimis for her excellent cover design.



©Australian Capital Territory, Canberra 1997

ISSN 1325-1090

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced without written permission from the Director, Publications and Public Communication, Department of Urban Services, ACT Government, GPO Box 158, Canberra ACT 2601.

Published by Publications and Public Communication for the Department of Health and Community Care's Epidemiology and Population Health Section and printed by the Authority of Peter Bell, ACT Government Printer.

150 - 2/97 A4 (97/2832)

Suggested citation: White U, Gilbert C, Johansen G. (1997) *Mental Health in the ACT*, Epidemiology Unit, ACT Dept of Health and Community Care: Health Series No 11, ACT Government Printer, ACT

TABLE OF CONTENTS

1. INTRODUCTION.....	1
1.1 PURPOSE OF THIS PUBLICATION	1
1.2 DEFINITIONS.....	1
1.3 NATIONAL MENTAL HEALTH STRATEGY	2
1.4 ACT STRATEGIC PLAN FOR MENTAL HEALTH SERVICES.....	2
1.5 THE COST OF MENTAL ILLNESS.....	3
2. MORBIDITY.....	5
2.1 SURVEY OF DISABILITY, AGEING AND CARERS 1993.....	5
2.2 NATIONAL HEALTH SURVEYS.....	7
2.3 ACT QUALITY OF LIFE SURVEYS.....	9
2.4 CANBERRA INTERVIEW FOR THE ELDERLY	10
2.5 NATIONAL SURVEY OF MENTAL HEALTH AND WELLBEING.....	10
3. SERVICE UTILISATION.....	12
3.1 THE ACT HOSPITAL MORBIDITY DATA COLLECTION.....	12
3.1.1 ACT hospital inpatient separations for mental disorders.....	12
3.1.2 Secondary diagnosis for mental disorders.....	16
3.1.3 Specific mental disorders.....	17
3.1.4 Hospital length of stay for mental disorders.....	19
3.1.5 Hospital separations for suicide attempts.....	20
3.1.6 Suicide and length of stay.....	22
3.2 OCCASIONS OF SERVICE COUNTING AND REPORTING DATA.....	23
3.3 NATIONAL MENTAL HEALTH REPORTS (1993-1995).....	23
4. MORTALITY.....	25
4.1 DEATHS DUE TO MENTAL DISORDERS.....	25
4.2 DEATHS DUE TO SUICIDE	28
4.3 YEARS OF POTENTIAL LIFE LOST	30
5. SELECTED AREAS OF INTEREST.....	31
5.1 CHILD AND ADOLESCENT MENTAL DISORDERS.....	31
5.2 THE AGEING POPULATION AND DEMENTIA.....	32
5.3 POSTNATAL MOOD DISORDERS	34
5.4 CO-OCCURRING ADDICTIVE AND MENTAL DISORDERS.....	35
6. ACT AND NATIONAL INITIATIVES	36
6.1 HEALTH GOALS AND TARGETS.....	36
6.2 MENTAL HEALTH POLICY TEAM.....	36
6.3 ACT MENTAL HEALTH SERVICES.....	37
6.4 HOSTELS AND GROUP HOMES.....	39
6.5 CALVARY HOSPITAL MENTAL HEALTH SERVICES.....	40
6.6 COMMUNITY GRANTS.....	40
6.7 COMMUNITY ORGANISATIONS.....	41
6.8 ACT DIVISION OF GENERAL PRACTICE INITIATIVES.....	43
6.9 PRIVATE SERVICES.....	44
7. GLOSSARY.....	45
8. ICD-9 CLASSIFICATIONS	47
9. METHODOLOGIES.....	48
9.1 YEARS OF POTENTIAL LIFE LOST	48
9.2 RATES.....	48

9.3 THREE YEAR MOVING AVERAGES.....	49
9.4 LOGISTIC REGRESSION ANALYSIS.....	49
9.5 SIGNIFICANCE TESTING.....	49
10. DATA LIMITATIONS.....	50
10.1 OVERALL DATA.....	50
10.2 MORTALITY DATA.....	50
10.3 HOSPITAL SEPARATIONS DATA.....	50
10.4 NATIONAL HEALTH SURVEYS.....	50
10.5 SURVEY OF DISABILITY, AGEING AND CARERS 1993.....	51
11. REFERENCES.....	52
12. HEALTH SERIES PUBLICATIONS.....	52



TABLES

Table 1: Estimated cost of diseases, ICD-9 chapter & sector of expenditure, 1989-90 (\$million)	4
Table 2: Type of main mental disabling condition, number by age, by sex, ACT, 1993	6
Table 3: General health & wellbeing mean scores, persons aged 18 yrs or more, by category, by age, by sex, ACT, 1995	9
Table 4: Population prevalence estimates (%) for ICD-10 & DSM-III-R depressive disorders in Canberra elderly, 1991-92	10
Table 5: No. of separations per individual for principal diagnosis of mental disorders, ACT, 1994-95	16
Table 6: Principal diagnoses for ACT hospital inpatient separations with a secondary diagnoses of mental disorders	17
Table 7: Estimated number of ACT hospital separations & ALOS for selected causes of injury & poisoning, by sex, 1994-95	22
Table 8: Hospital separations due to suicide & self-inflicted injury, by age, by sex, ACT, 1994-95	22
Table 9: ACT mental health performance compared to national average, 1993-95	24
Table 10: Age-sex profile of ACT deaths due to mental disorders, 1995	25
Table 11: Crude death rates for mental disorders, by sex, ACT & Australia, 1989-95	26
Table 12: Deaths due to mental disorders by country of birth, ACT, 1995	27
Table 13: Deaths due to mental disorders, by sex and marital status, ACT, 1994-95	27
Table 14: Deaths due to suicide, by country of birth, by sex, ACT, 1995	30
Table 15: Residents living in ACT facilities, February 1997	33
Table 16: Health goals, mental health, ACT	36
Table 17: Research Reports completed by ACT Mental Health Services	38
Table 18: Activity data for Mental Health Services 1994-95 and 1995-96.	39



FIGURES

Figure 1: Disabling conditions by sex, ACT, 1993	6
Figure 2: Disabling conditions, mental disorders, rate by sex, ACT & Australia, 1993(a)	7
Figure 3: Hospital inpatient separations with a principal diagnoses for mental disorders & other causes, ACT, 1994-95	13
Figure 4: ACT hospital inpatient separations with a principal diagnoses for mental disorders, by age, by sex, 1994-95	13
Figure 5: Breakdown of ACT hospital separations with a principal diagnoses for mental disorders, 1994-95	14
Figure 6: ACT hospital inpatient separations (%), principal diagnoses for mental disorders and other diseases, by country of birth, 1994-95	14
Figure 7: ACT hospital inpatient separations (%), principal diagnosis for mental disorders and other diseases, by marital status, 1994-95	15
Figure 8: Estimated number of ACT hospital separations and total length of stay (TLOS) for selected principal diagnosis of mental disorders, ACT 1994-95	18
Figure 9: Total days (%) spent in hospital for mental disorders and other causes, ACT, 1994-95	19
Figure 10: Breakdown of ACT hospital separations total days length of stay for mental disorders, 1994-95	20
Figure 11: Breakdown of ACT hospital separations for external causes of injury and poisoning, by sex, 1994-95	21
Figure 12: Three year moving averages for age standardised death rates for mental disorders, persons, ACT and Australia 1989-95	26
Figure 13: Crude suicide rates, by sex, ACT and Australia 1985-95	28
Figure 14: Three year moving average of age standardised suicide rates, persons, ACT and Australia, 1982-95	29
Figure 15: Years of potential life lost, major causes, ACT, 1995	31



Mental Health in the ACT

1. Introduction

Mental health is of considerable importance to the community. Estimates show that between one-in-four and one-in-five individuals, and at least one in ten children and adolescents in Australia will be affected by a mental health problem or mental disorder at some point in their lives to a degree which interferes with their lives.¹ Mental illness also lays considerable emotional, financial and social burdens on families associated with sufferers. As a result, mental health is one of the major health priority areas both nationally and for the ACT.

Mental health reform in Australia is being driven by the National Mental Health Strategy, which in the ACT, is complemented by ACT Strategic Plans. These strategies target the needs of people with serious mental illness, since they are the group in greatest need, but do not ignore the needs of people with less serious mental illness or a mental dysfunction.

1.1 Purpose of this publication

This publication aims to give as detailed an analysis as possible, given available data, on the profile of mental health in the ACT and how it compares to Australia as a whole. This will provide planners and interested bodies with information on which to base priorities for interventions to improve both current and future services in the ACT.

The issue of suicide was considered in the publication Health Series No. 2 (*The Epidemiology of Injury in the ACT*), but since many suicides are caused by or are associated with, mental illness, the issue is also discussed in this publication.

Data used in the publication rely heavily on national collections and the ACT Hospital Morbidity Data Collection. The emerging results of the Mental Health Services Occasions of Service Counting and Reporting data collection and the release of data next year from the soon to be administered National Mental Health Survey will enrich current knowledge on both national and ACT incidence of mental illness. (refer section 2.5)

1.2 Definitions

There is no agreed definition of severe mental illness although the US National Advisory Mental Health Council version as reported in the First National Mental Health Report.² can be used as a guide: it is '*defined through diagnosis, disability and duration and includes disorders with psychiatric symptoms such as schizophrenia, autism, major depression, panic disorder and obsessive compulsive disorder*'. With regard to mental illness generally, there is even less agreement as to a definition. For the purpose of this publication, the Canadian Department of National Health and Welfare's definition of mental health is

used³: *Mental health is the capacity of the individual, the group and the environment to interact with one another in ways that promote subjective well-being, the optimal development and use of mental abilities (cognitive, affective and relational), the achievement of individual and collective goals consistent with justice and the attainment and preservation of conditions of fundamental equality.* Mental health problems such as ‘nerves’ and ‘tension’ which are detailed in the National Health Surveys, are not generally defined as mental illness although they may, at some stage, be precursors to more serious problems. Within this publication the two terms mental illness and mental disorders are used as general terms which are interchangeable although they are differentiated between in clinical areas.

For the purpose of this publication, disabilities and handicaps, are *long-term results of mental illness which impact on the quality of life of the person affected*⁴. (refer Section 7, Glossary for levels of disability). It is important to note that all people with disabilities are not necessarily handicapped. A person with a handicap is defined as one whose disability limits to some degree, their ability to perform certain tasks such as self-care, mobility, verbal communication, schooling and employment.

1.3 National Mental Health Strategy

The National Mental Health Strategy was developed and endorsed by all state, territory and Commonwealth governments in response to an agreed National Mental Health Policy. Its aims and activities include the provision of funds for innovative projects of national significance, an exploration of ways to improve the mental health workforce and conditions of service, development of a consistent approach to data and performance, development of consistent mental health legislation across Australia, promotion of positive community attitudes towards mental illness, development of high quality linkages between mental health services and other human services, and the provision of quality mental health services to special needs groups such as Aboriginal and Torres Strait Islanders and people from culturally and linguistically diverse backgrounds. The ACT Mental Health Strategy is consistent with the national strategy.

1.4 ACT Strategic Plan for Mental Health Services

This plan was developed after extensive consultation with staff and the community. It sets the direction for an improved mental health service for the people of Canberra for the years 1993 through to 1998 and allows for annual updates to ensure relevance of focus to take account of changing needs. It was developed within the priorities and requirements of the National Mental Health Policy and Strategy.

The aims of the Plan are to contribute to improving the social and emotional well-being of the ACT and regional community by reducing the severity of moderate to severe psychiatric and emotional/behavioural disturbances and the effects on individuals, families and the wider community. This is being achieved through the utilisation of multi-disciplinary teams (based

on the case management approach) and early intervention and continuity of care leading to the rehabilitation of clients within mainstream services.

The Plan outlines objectives and strategies regarding the following issues:

- ◇ Mainstreaming of services
- ◇ Integration
- ◇ Intersectoral linkages
- ◇ Service development and micro-economic reform
- ◇ Legislation
- ◇ Monitoring, service standards, data and performance indicators
- ◇ Consumer rights and consultation
- ◇ Special needs groups
- ◇ Role of carers and advocates
- ◇ Financial accountability
- ◇ Evaluation
- ◇ Research

Refer Section 6.3 for details of activities of ACT Mental Health Services.

1.5 The cost of mental illness

People with disabilities caused by mental illness have varying problems with daily living, depending on the nature and severity of their disability, and the availability of appropriate services to assist them. Their disability may limit participation into the mainstream education system or workforce, and/or recreation and sporting activities, and may impact on lifestyle opportunities and financial security. Many people with disabilities caused by mental illness however, do not experience any, or only minor limitations to daily living activities.⁵

The economic cost (direct health service costs) of mental health is compared with other disease groups in Table 1. The disease costings provide a different perspective on the burden of disease from population morbidity and mortality indicators, namely the economic burden caused by illness and premature death. The disease groups, including mental health, which represent long-term illness rather than fatal illness rank highly in terms of direct costs. Moreover, if the expenditure of psychiatric hospitals were to be added into the mental disorders, mental health direct costs would rank third behind digestive disorders and circulatory disorders.⁶ There are no psychiatric hospitals in the ACT.

Table 1: Estimated cost of diseases, ICD-9 chapter & sector of expenditure, 1989-90 (\$million)

ICD-9 chapter	Direct Costs					Total direct costs	Indirect costs	Total costs
	Hospitals ^(a)	Nursing homes	Medical	Pharmaceutical	Allied professionals			
Infectious	123	11	179	128	23	464	180	644
Neoplasms	798	121	109	20	11	1060	1544	2604
Endocrine	122	46	134	68	46	416	267	683
Blood	82	14	26	20	2	143	28	172
Mental	926	423	226	169	82	1826	402	2228
Nervous	339	215	233	173	86	1045	273	1318
Circulatory	1140	530	296	410	37	2414	1300	3713
Respiratory	474	96	429	529	58	1587	644	2231
Digestive	918	86	147	105	^(b) 1386	2643	519	3162
Genitourinary	612	49	223	111	24	1019	297	1316
Complic. preg.	480	1	21	3	2	506	311	817
Skin	186	41	157	163	34	582	129	710
Musculoskeletal	588	101	305	236	193	1422	335	1756
1								
Congenital	100	4	10	2	-	116	66	182
Perinatal	93	-	1	-	-	95	-	95
Ill-defined	397	89	237	73	44	840	219	1059
Injury	858	263	260	100	157	1638	2769	4407
V codes	673	229	327	144	70	1444	316	1759
All diseases	8910	2318	3320	2454	2257	19260	9599	28856

(a) Hospitals comprise public and private hospitals. Public psychiatric data are included in 'Mental'.

(b) Allied professional services include dental services, which are included with diseases of the mouth in diseases of the digestive system.

Source: Australian Institute of Health and Welfare, DCIS project.

The National Mental Health Report states that the ACT has a higher proportion of spending on resources for community mental health services than other states and territory. In 1994-95, it spent \$30 per capita on community mental health residential services compared to the national average of \$21. On the other hand, despite an increase in funding, in terms of total per capita spending on mental health, the ACT rates sixth with an expenditure of \$52 per capita compared to the national average of \$58.⁷



2. Morbidity

Morbidity data describes the level of disease in the community. Often hospital morbidity data and surveys are used as estimates of disease prevalence in the community. Recent, accurate data describing the true level of mental illness in Australia are not currently available. However, when the results from the National Survey of Mental Health and Wellbeing 1997 and the 1995 National Health Survey become available, these will provide a good estimate of the level of illness for a number of mental disorders and illnesses in the community.

As mentioned in the introduction a substantial number of people suffer from mental illness to a level which interferes with their lives. A report commissioned for the National Mental Health Strategy estimated that the prevalence of serious mental illness each year was about 3 per cent of Australians. Only about half of these are *receiving treatment* from either public mental health services, private psychiatrists or general practitioners.⁸ Over half of them are female. This is particularly so for depression, anxiety states and somatization disorders, whereas males predominate for substance abuse disorders and antisocial personality disorder⁹. (As discussed later, males predominate in suicide).

2.1 *Survey of Disability, Ageing and Carers 1993*

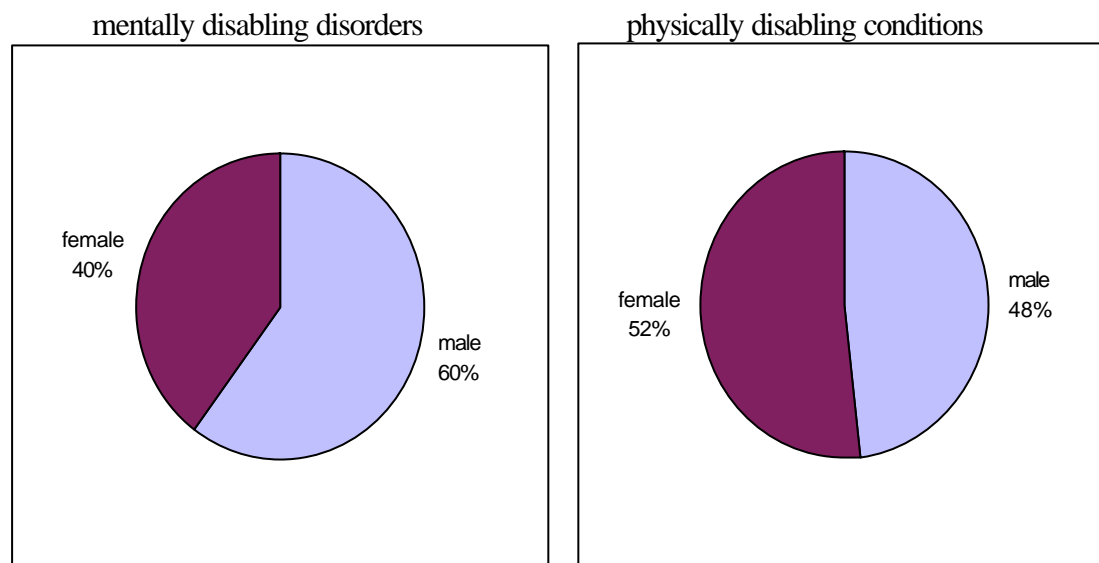
This survey was the third in a series conducted by the Australian Bureau of Statistics (ABS). It provides estimates of the numbers and main characteristics of persons with disabilities and/or handicaps, examines profiles of persons aged 60 years or more, and carers. It was conducted in private and special dwellings, and establishments such as hospitals, hostels, retirement villages and nursing homes.

Mental disorders were defined in two categories in the Survey: senile and other psychosis; and 'other mental disorders' which includes mental retardation, mental degeneration due to brain damage, slow learning and specific delays in development, neurotic disorders, personality disorders and other non-psychotic mental disorders. A person was identified as having a disability if they had one or more of a group of selected limitations, restrictions or impairments which had lasted, or would be likely to last, for six months or more. A person was identified as having a handicap if they had limitations in performing one or more selected tasks of daily living. Children aged less than 5 years with a disability were deemed to all have a handicap, but the area and severity of that handicap was not determined.

Results relating to mental illness follow:

In the ACT, males represented over half of all cases of mentally disabling disorders reported, but under half the cases of physically disabling conditions (refer Figure 1).

Figure 1: Disabling conditions by sex, ACT, 1993



Source: ABS, *Disability, Ageing and Carers Survey 1993*, Cat No. 4432.0

The following table shows the estimated number of males and females in the ACT with mental disorders which have resulted in disability:

Table 2: Type of main mental disabling condition, number by age, by sex, ACT, 1993

Type of main disabling condition	Age Group (years)								Total
	0-14	15-24	25-34	35-44	45-54	55-64	65-74	75+	
MALES									
Mental psychoses	**100	**100	**0	**0	**100	**0	**0	**0	*400
Other disorders	1500	*700	*300	*400	**0	**200	**	**100	3100
<i>Total</i>	1600	*700	*400	*400	**100	**200	**0	**100	3500
FEMALES									
Mental psychoses	**100	**	**0	**100	**100	**0	**0	**100	*400
Other disorders	**200	**300	**200	*400	*500	**200	**100	**0	1900
<i>Total</i>	**200	**300	**200	*500	*500	**300	**100	**200	2300
PERSONS									
Mental psychoses	**100	**100	**100	**100	**100	**0	**0	**200	*800
Other disorders	1700	*900	*600	*800	*500	*400	**100	**100	500
<i>Total</i>	1800	1000	*600	*900	*600	*400	**100	**200	5800

** Data subject to high relative standard error. * Subject to sampling variability between 25% and 50%

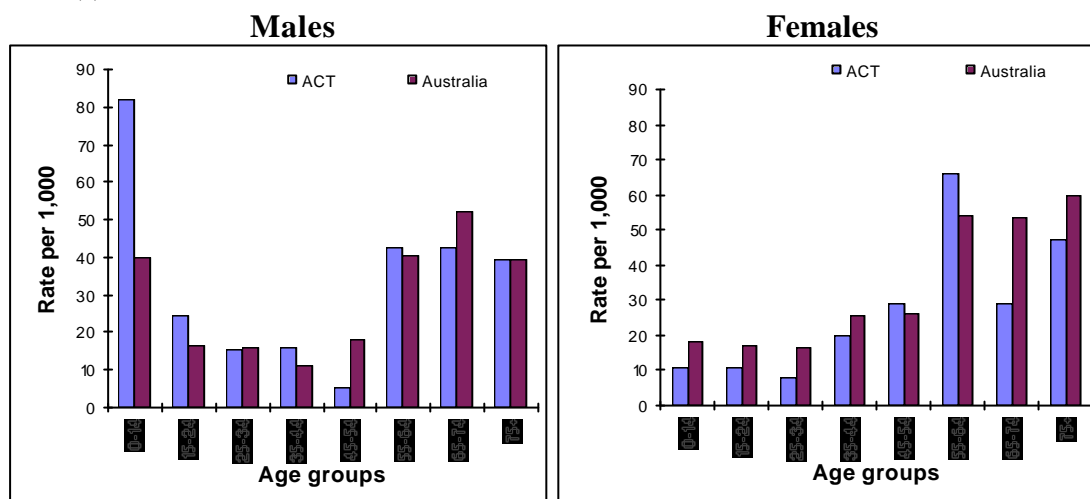
Source: ABS, *Disability, Ageing and Carers, Australia, 1993*, Cat. No. 4430.0

Data presented above should be treated with the utmost caution, since numbers are so small and are subject to high standard error. They should be treated as an indication only.

Of the people with a disabling condition caused by a mental disorder, 21 per cent had profound disabilities. (16 per cent of males and 31 per cent of females with a disabling condition of mental disorder had profound disabilities) (refer Glossary for levels of disability).

The breakdown of reported prevalence rates by age group for mentally disabling conditions shows the peaks and profiles for males and females:

Figure 2: Disabling conditions, mental disorders, rate by sex, ACT & Australia, 1993(a)



(a) subject to high sampling variability, treat with caution.
Source: ABS, *Disability, Ageing and Carers Survey 1993*, Cat No. 4432.0

It is interesting to note the different age profiles for males and females (refer Figure 2 above). Male rates peak at a very young age, drop dramatically at age 15 years, although still higher than females, and return to a peak at age 55 and onwards. Females on the other hand, peak between 55 and 64 years (ACT) and at 75+ years (Australia), with high rates in all older age categories.

One explanation for the high proportion of male incidence at the youngest age range may be that older males may not disclose mental disorders readily, thus skewing the proportions. Females may be more likely to be frank about their disorders. In any event, the Australian Bureau of Statistics is testing modifications to the questionnaire for the next survey, to try and remove any impediments to disclosure (eg. questions posed in different ways, more related questions which could uncover any disorders or conditions without threatening the respondents). It will be important to monitor results of future surveys, especially for prevalence rates of males aged 0-14 years and females aged 55-64 in the ACT.

The standardised rate for mental disorders (standardised to the Australian population in March 1993) in the ACT was 2.3 per 1,000 males, 1.7 per 1,000 females and 1.9 per 1,000 persons. This compares to an Australian rate of 2.0 per 1,000 persons.

2.2 National Health Surveys

In the 1989-90 National Health Survey (refer 10.4) an estimated 4,800 people self-reported as having long-term mental disorders in the ACT. Although, adjustment for age and sex showed the ACT to have a slightly higher rate of disorder, this was not significantly

different to the Australian average (age-sex standardised ratio was 106.6). However, when looking at age-standardised percentages for specific gender and age groups females in the 0-14 age range (ACT 3.1%, Australia 0.8%) were significantly different to the Australian population. Males in the 15-24 age range (ACT 5.0%, Australia 1.5%) are higher than the Australian population, however the sample was too small to deduce significance.¹⁰ Since these are the crucial years for education and vocational training, mental illness during this period has a huge impact on employment and lifestyle possibilities and consequently, the situation needs careful monitoring and possibly, intervention.

Major recent conditions reported nationally were nerves, tension, nervousness or emotional problems (52.7% of all people self-reporting mental disorders, comprising 40.6% males and 59.5% females), depression (15.3% comprising 36.1% males and 64.1% females) and psychoses (8.4% comprising 52.5% males and 47.5% females). The highest percentage of psychoses occurred in the 25-44 age range and depression peaked in the 46-64 age range.

The preliminary results of the 1995 National Health Survey have recently been released allowing a more current and accurate assessment of self-reported mental disorders in the ACT and Australia. Full results will be released shortly.

Of those ACT people reporting recent conditions in 1995 an estimated 5,700 people (1.9%) reported suffering from nerves, tension, nervousness or emotional problems. This equates to a rate of 16.4 per 1,000 people for males (Australian male rate is 15.9), 21.2 per 1,000 for females (Australian female rate is 24.8), and 18.8 per 1,000 persons (Australian rate is 20.4). These ACT rates are similar to those of the previous survey.

One set of questions in the Survey (based on the SF-36 form) related to respondents' perceptions of their health related quality of life. Scores were between 0 and 100 with higher scores denoting better state of health. Table 3 shows that mean scores in all categories except mental health decreased with age. This was particularly so with the category of physical functioning. Males had higher total scores than females with the exception of general health (males 72.2, females 73.4). As people aged, their mental health scores improved. It is interesting to note that ACT mean scores were slightly better than national scores, with the exceptions of role limitations (emotional) which was identical, and mental health which was slightly lower (but not statistically significantly lower) than the national score.

Table 3: General health & wellbeing mean scores, persons aged 18 yrs or more, by category, by age, by sex, ACT, 1995

Category	Age groups					Total
	18-24	25-44	45-64	65-74	75+	
Physical functioning	90.5	90.0	83.8	68.8	54.1	86.1
Role limitations: physical	85.3	83.6	81.5	71.7	59.6	82.0
Bodily pain	76.7	77.9	76.7	73.6	70.6	76.9
General health	73.0	74.6	72.0	65.6	65.2	72.8
Vitality	65.5	64.3	65.2	67.5	59.5	64.8
Social functioning	84.9	85.6	85.0	87.4	80.8	85.3
Role limitations: emotional	80.8	83.8	84.0	83.8	67.7	82.9
Mental health	74.3	75.1	75.5	79.9	78.6	75.5

Source: National Health Survey, First Results, ACT tabulations, 1995, Catalogue No. 4392.0

2.3 ACT Quality of Life Surveys

The Quality of Life Project¹¹ 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 has operated for two 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 from the project show that within the ACT population there are some interesting findings with regard to the mental health score.

- Older people (65+) are significantly more likely to have good mental health than those in the younger adult population (18-44 and 45-65 yrs).
- Women tend to score lower (poorer health) than men for scales significantly related to mental health. The exception is general health with women scoring better than men. These results follow the pattern for the general Australian population.
- Workers who are full-time have higher significant mean scores than part-time workers for mental health scales. In fact, using multivariate analyses, employment status had the strongest influence on the mental health dimension.
- Those who were married or de facto and who had children were likely to have worse mental health than those who were married or de facto without children or who were single without children.
- Interestingly, all scales except the mental health measure were significantly associated with disability status.

These results give baseline data for the overall ACT population and will assist policy makers and planners to target groups within the population in order to achieve better health outcomes for those in particular need.

2.4 Canberra Interview for the Elderly

The NH&MRC Social Psychiatry Research Unit (now the NHMRC Psychiatric Epidemiology Research Centre) at the Australian National University conducted a prospective longitudinal study of the ACT elderly population to endeavour to estimate the prevalence of both depressive disorders and dementia by international criteria¹². There were 945 people in the community and 43 in institutions who were interviewed from October 1990 to June 1991 to a point where the diagnostic algorithms could be applied.

The study results as outlined in Table 4 showed that the proportion of cases with depressive disorders were consistently higher in persons living in nursing homes or sheltered accommodation for older people, than in the community. While the proportion of cases has been found to be only 3.3 per cent in the total sample (0.6 standard error), it was found that many respondents had depressive symptoms. Fewer than a third of the sample had no symptoms. There was a higher level of symptoms in females than males.

Table 4: Population prevalence estimates (%) for ICD-10 & DSM-III-R depressive disorders in Canberra elderly, 1991-92

Depressive episode	Community residents			Institutional residents			Total population aged 70+		
	males	females	total	males	females	total	males	females	total
ICD-10									
mild	1.5	2.0	1.8	2.5	4.7	4.1	1.6	2.3	2.0
moderate	0.6	1.3	1.0	2.3	3.2	3.0	0.7	1.6	1.2
severe	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.2	0.1
Total	2.1	3.5	2.9	4.1	7.2	6.4	2.2	3.9	3.3
DSM-III-R									
major	0.2	0.6	0.4	3.2	7.4	6.3	0.4	1.5	1.0

Source: NH&MRC Social Psychiatry Research Unit, Australian National University, 1992

It was concluded from the study that the elderly in the community probably do not carry higher rates for depressive disorders as defined by diagnostic criteria and at the severity encountered in psychiatric clinics than other age groups, but they do experience substantial levels of depressive *symptoms*.

2.5 National Survey of Mental Health and Wellbeing

Since there is currently little data on the prevalence of mental illness in Australia, the National Survey of Mental Health and Wellbeing (NSMHW) under the auspices of the National Mental Health Strategy, will be conducted in mid 1997. The Australian Bureau of Statistics (ABS) has been commissioned to conduct the survey in conjunction with a number of university based academic consortiums throughout Australia.

It is expected that the survey will give a profile of mental illness and therefore, a basic profile of morbidity caused by mental illness in the community by collecting the following information:

- information on mental health needs both met and unmet;
- estimates on how many Australians have a mental illness or associated disability, (ie, determine the prevalence rates of mental disorders and the disability associated with such disorders); and
- estimates of patterns in the use of mental health services.

In order to obtain this information the NSMHW will use three survey vehicles as follows:

- an adult household survey;
- a child and adolescent household survey; and
- a catchment area study of low prevalence (psychosis) disorders.^{13,14}

The originally planned ACT sample of about 250 will be increased to approximately 600 households. This will give a sample of sufficient size to enable the ACT to look at the profile of prevalence of mental disorders in the ACT. As a consequence, the ACT will not be able to participate in the child and adolescent household survey. The ACT Department of Health and Community Care is however, providing funding to the Social Psychiatry Research Unit, Australian and National University for a survey, similar to that of the low prevalence study, for ACT residents only. As the survey instrument has been used in other countries, comparisons will be possible at both a national and international level.



3. Service Utilisation

As hospital separation data primarily describe treatment of those with acute or chronic disease they do not fully describe the pattern of mental disorders and disease within the community. In fact, it has been recognised that caution needs to be applied when using hospital service utilisation as a proxy to plan resource allocation without examining the appropriateness for the conditions being studied.¹⁵ Data collected from the National Survey of Mental Health and Wellbeing 1997 (Refer Section 2.5) will allow examination of disease prevalence in conjunction with service utilisation. This will further assist in the understanding and planning of mental health services.

3.1 The ACT Hospital Morbidity Data Collection

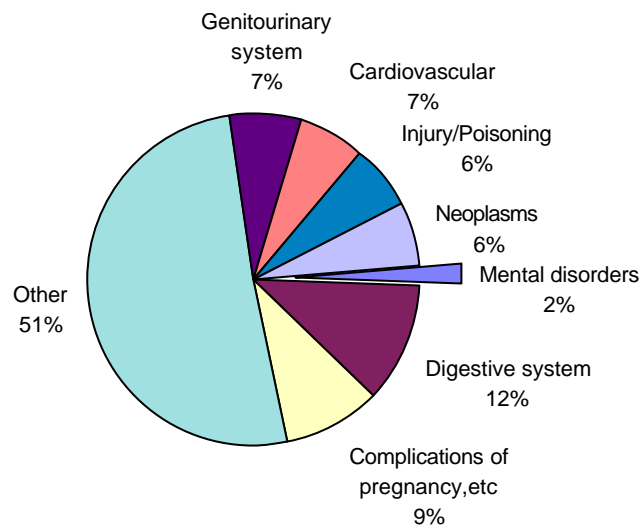
Hospital separations data are collected routinely from the four ACT hospitals (The Canberra Hospital, Calvary Public, Calvary Private, John James Memorial Private). The following description is based on ACT separations classified as mental disorders under the ICD9 chapter on mental disorders and those classified as suicides under the ICD9 external injury codes for suicide. Given that The Canberra Hospital services the South-East Region, there is a considerable cross-border flow between the ACT and other states. In the case of mental disorders, interstate patients account for approximately 13 per cent of separations. This is substantially lower than the percentage for the total interstate separations for all causes (18%).

The ACT Hospital Morbidity Data Collection is data on patients admitted to ACT hospitals. It does not include emergency or outpatient clinic data.

3.1.1 ACT hospital inpatient separations for mental disorders

In 1994-1995 there were 1,492 (694 males, 798 females) ACT hospital separations with a principal diagnoses of a mental disorder. These accounted for 2% of all hospital separations (refer Figure 3). The majority of these services were provided by public hospitals (97.2%).

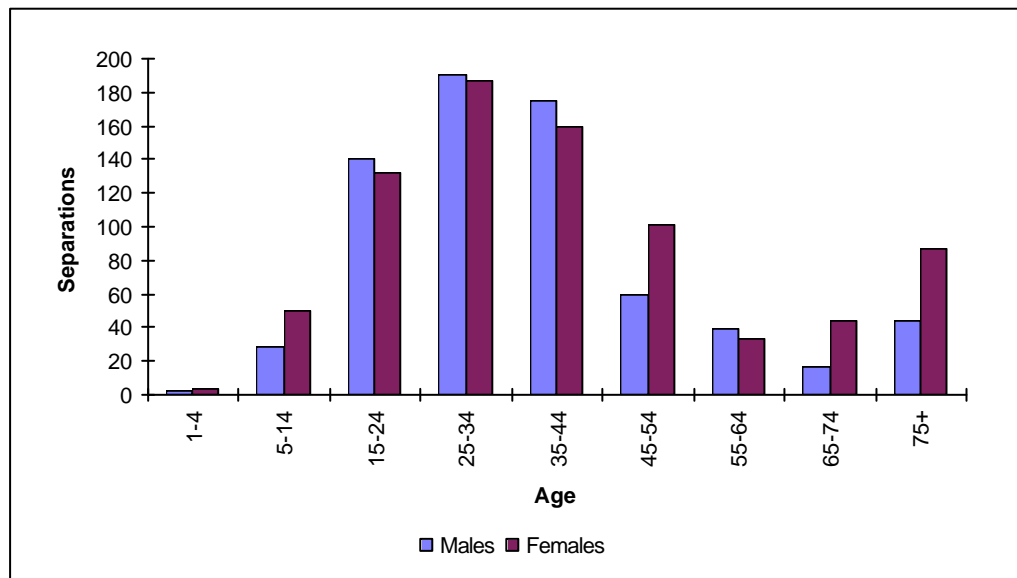
Figure 3: Hospital inpatient separations with a principal diagnoses for mental disorders & other causes, ACT, 1994-95



Source: ACT Hospital Morbidity Data Collect 1994-95

Unlike cardiovascular disease (mean age 62) and cancer (mean age 55), where service utilisation increases with age, mental illness has a substantial proportion of younger individuals (mean age 39) utilising services. This is reflected in the age and gender breakdown of hospital separations of mental disorders for 1994-95 (refer Figure 4).

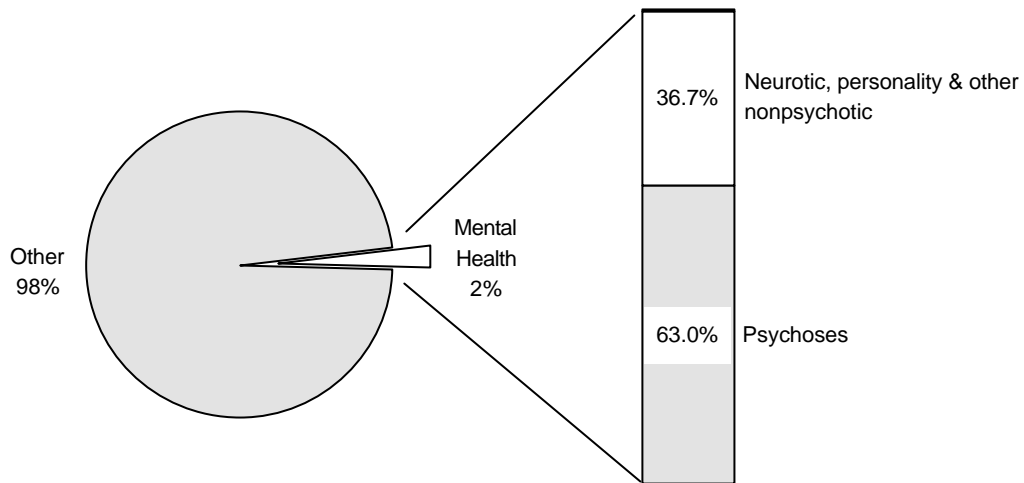
Figure 4: ACT hospital inpatient separations with a principal diagnoses for mental disorders, by age, by sex, 1994-95



Source: ACT Hospital Morbidity Data Collection 1994-95

The two major categories of mental illness for hospitalisation are psychoses; and neurotic, personality and other non-psychotic disorders. The make-up of these sub-groups is given below. (refer Figure 5).

Figure 5: Breakdown of ACT hospital separations with a principal diagnoses for mental disorders, 1994-95

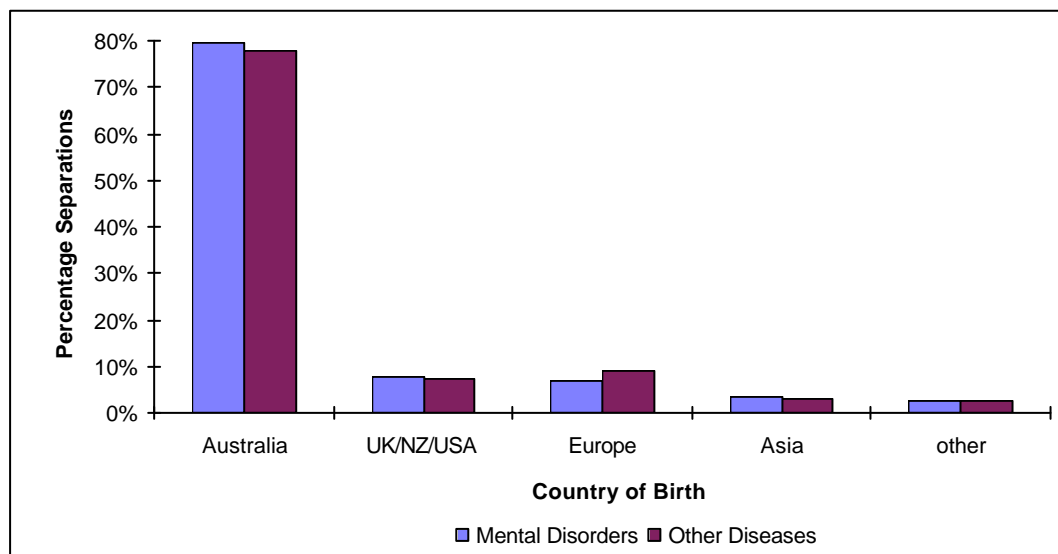


Source: ACT Hospital Morbidity Data Collection 1994-95

There were 9 (7 males, 2 females) separations due to mental disorders identified as *Aboriginal or Torres Strait Islanders*. This was 0.6 per cent of separations for mental disorders. This approximately equates to the proportion of Aboriginal and Torres Strait Islanders living within the ACT community, since 1991 Census data showed that 0.6 per cent of the ACT population were Aboriginal or Torres Strait Islanders.

Of ACT hospital separations in 1994-95, those separated due to mental disorders showed no significant differences with their *country of birth* profile compared with those separated due to other diseases.

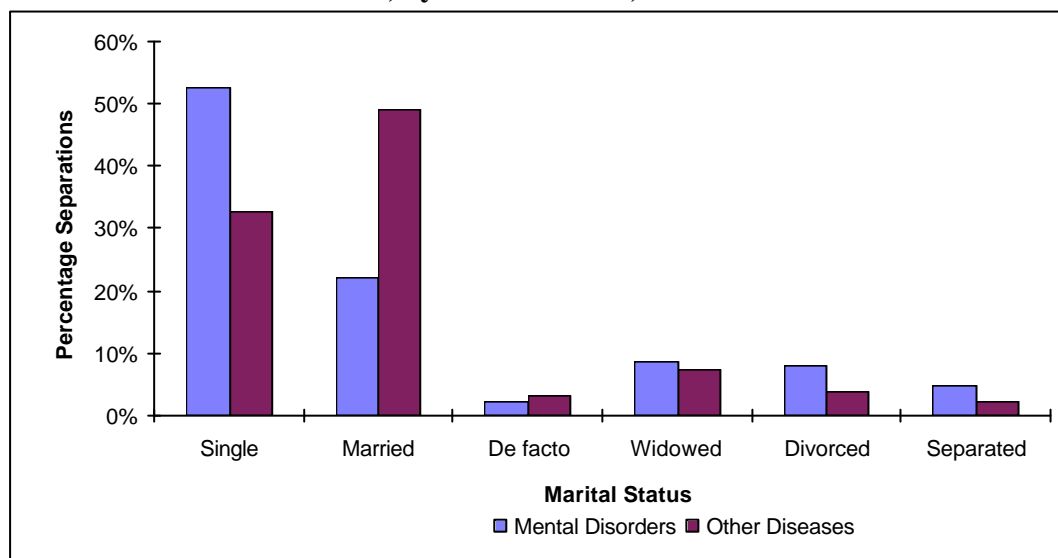
Figure 6: ACT hospital inpatient separations (%), principal diagnoses for mental disorders and other diseases, by country of birth, 1994-95



Source: ACT Hospital Morbidity Data Collection 1994-95

Of ACT hospital separations in 1994-95, those separated due to mental disorders had a different *marital status* profile to those separated with other diseases. A breakdown of hospital separations by marital status for mental disorders and other diseases is given in Figure 7. Further analysis was used in order to remove the effects of age and sex. (refer to 9.4 for methodology). The results showed that those separated with mental disorders are less likely to be married, ($\beta=-1.0433$, $p<0.0001$) de facto ($\beta=-0.3712$, $p<0.05$) and widowed ($\beta=-0.4380$, $p<0.0001$) however, were more likely to be divorced ($\beta=0.4143$, $p<0.0001$) and separated ($\beta=0.5858$, $p<0.0001$) than those separated with other diseases.

Figure 7: ACT hospital inpatient separations (%), principal diagnosis for mental disorders and other diseases, by marital status, 1994-95



Source: ACT Hospital Morbidity Data Collection 1994-95

The following table shows that there were at least 211 (19.1%) individuals who were separated with mental disorders more than once during the 1994-1995 period. (refer to Section 10, data limitations). However, this is only within a one year period. The number of re-admissions for those experiencing mental disorders shows the chronic nature of the illness for a high number of individuals.

Table 5: No. of separations per individual for principal diagnosis of mental disorders, ACT, 1994-95

No. of separations per individual(a)	No. of Individuals	Total Separations
1	894	894
2	138	276
3	40	120
4	19	76
5	7	35
6	3	18
8	2	16
24	1	24
33	1	33
Total	1105	1492

(a) Individuals are identified within hospitals, not between hospitals

Source: ACT Hospital Morbidity Data Collection 1994-95

3.1.2 Secondary diagnosis for mental disorders

In 1994-95, in addition to those ACT hospital separations with mental disorders as a principal diagnoses, there were 1,241 separations with a secondary diagnoses of a mental disorder (refer Table 6). The principal diagnoses groups for these separations were injury and poisoning (32%), digestive system (14%) and circulatory diseases (11%). In fact, it is interesting to note that 16 percent of these separations have a more specific primary diagnoses of poisoning by drugs, medicinal and biological substance abuse. (refer to section 5.4 for a discussion on Co-occurring addictive and mental disorders).

Whereas, the majority of separations of those with mental disorders as a principal diagnoses were attributable to psychoses, more than half of secondary mental conditions are neurotic, personality and other non-psychotic disorders.

Table 6: Principal diagnoses for ACT hospital inpatient separations with a secondary diagnoses of mental disorders

Principal Diagnoses	Separations
Infectious/parasitic	11
Neoplasms	55
Endocrine/immunity disorders	35
Blood/blood-forming organs	10
Nervous syst/sense organs	90
Circulatory system	132
Respiratory system	79
Digestive system	171
Genitourinary system	37
Complications of pregnancy, etc	32
Skin/subcutaneous tissue	24
Musculoskeletal system	46
Congenital anomalies	0
Conditions origin in perinatal period	0
Signs/symptoms/ill-defined conditions	84
Injury/poisoning(a)	395
Supplementary classifications	40
Total	2733

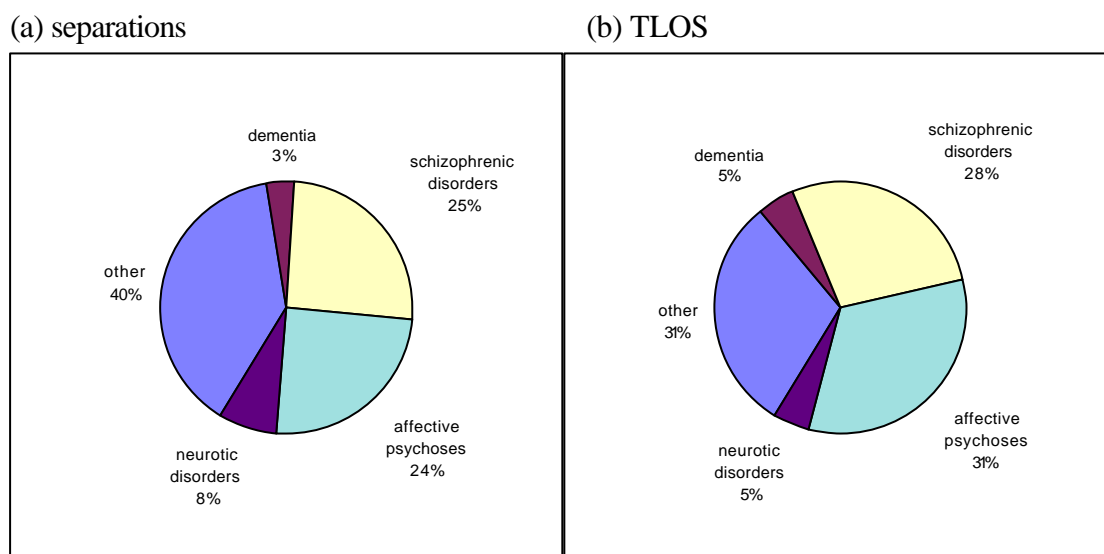
(a) Includes poisoning by drugs, medicinal and biological substance abuse.

Source: ACT Hospital Morbidity Data Collection 1994-95

3.1.3 Specific mental disorders

There are specific groups of mental disorders that are of interest. The breakdown of these groups is summarised in Figure 8.

Figure 8: Estimated number of ACT hospital separations and total length of stay (TLOS) for selected principal diagnosis of mental disorders, ACT 1994-95



Source: ACT Hospital Morbidity Data Collection 1994-95

Schizophrenia

Schizophrenia characteristically appears in late adolescence and early adult life but, may also appear later. Some patients' illnesses become more difficult over time although, others recover substantially.¹⁶

There were 379 ACT hospital separations due to schizophrenia, with 230 males and 149 females, in 1994-95. Their average length of stay (ALOS) was 14.2 days. The majority of these separations were in the 5-54 year age groups (94%).

Affective psychoses

Affective psychoses includes manic depressive, major depressive and bi-polar disorders and neurotic disorders. In 1994-95 there were 360 hospital separations due to affective psychosis. Of these, there were 126 males and 234 females with an overall ALOS of 17.1 days. The majority were in the 14-64 year age groups (90%).

Neurotic disorders

Neurotic disorders include those with anxiety states, panic disorder, phobias and obsessive-compulsive disorders. One of the difficulties with those suffering neurotic disorders is that their disorder is often chronic, they do not present for care and their disorder may not be recognised. In addition, they often seek consultation for physical conditions rather than for their illness. As a result the numbers being correctly diagnosed and utilising appropriate services may be under-reported.¹⁷

There were 113 ACT hospital separations due to neurotic disorders in 1994-95. Of those, 55 were males and 58 were females. Once again the number of cases decreases as age increases. However, the most interesting characteristic of this group is that the overall

ALOS is only 8.3 days, a far lower length of stay to the other groups of interest. This implies that those presenting with neurotic disorders have less severe needs than those presenting with the other diagnoses of interest.

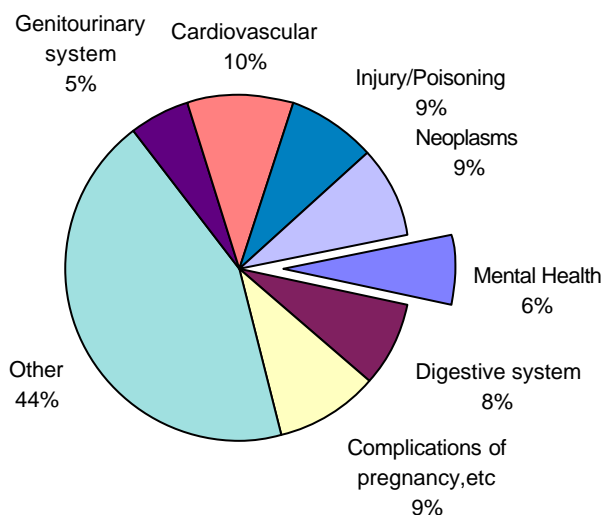
Dementia

There were only 52 hospital separations for dementia in 1994-95. The majority of these were for people 75 plus years (78%). This group had the highest percentage of separations due to mental disorders over 75 years. This group also had the longest length of stay (19.1 days) for specific mental disorders. Given the age group and the nature of dementia (refer Section 5.2) one would expect this group to be more resource intensive and therefore to have a higher length of stay. In addition, they often wait in hospital for placement into other care.

3.1.4 Hospital length of stay for mental disorders

Length of stay in hospital is generally a measure of acuity of illness, however for those with mental disorders it can also reflect social difficulties. Mental disorders accounted for the highest average length of stay (ALOS) of all conditions, although the number of separations is very small by comparison to the separations of other causes (refer Figure 3 and Figure 9). As a result, although the proportion of separations caused by mental illness was only 2 per cent, the total days spent in hospital was 6 per cent of all hospital days.

Figure 9: Total days (%) spent in hospital for mental disorders and other causes, ACT, 1994-95

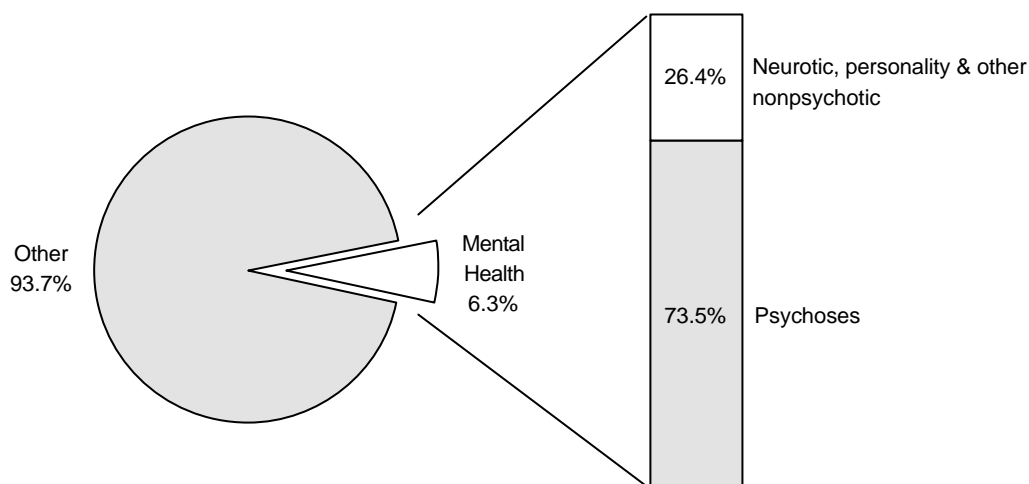


Source: ACT Hospital Morbidity Data Collection 1994-95

Those separations diagnosed with psychoses had an ALOS of 15.1 days in comparison to 9.4 days for those diagnosed with neurotic, personality & other nonpsychotic disorders .

This means that those diagnosed with psychoses utilised more services in proportion to their separations (Refer to Figure 5 and Figure 10). The breakdown of the total days spent in hospital by patients who had mental disorders is given below:

Figure 10: Breakdown of ACT hospital separations total days length of stay for mental disorders, 1994-95



Source: ACT Hospital Morbidity Data Collection 1994-95

3.1.5 Hospital separations for suicide attempts

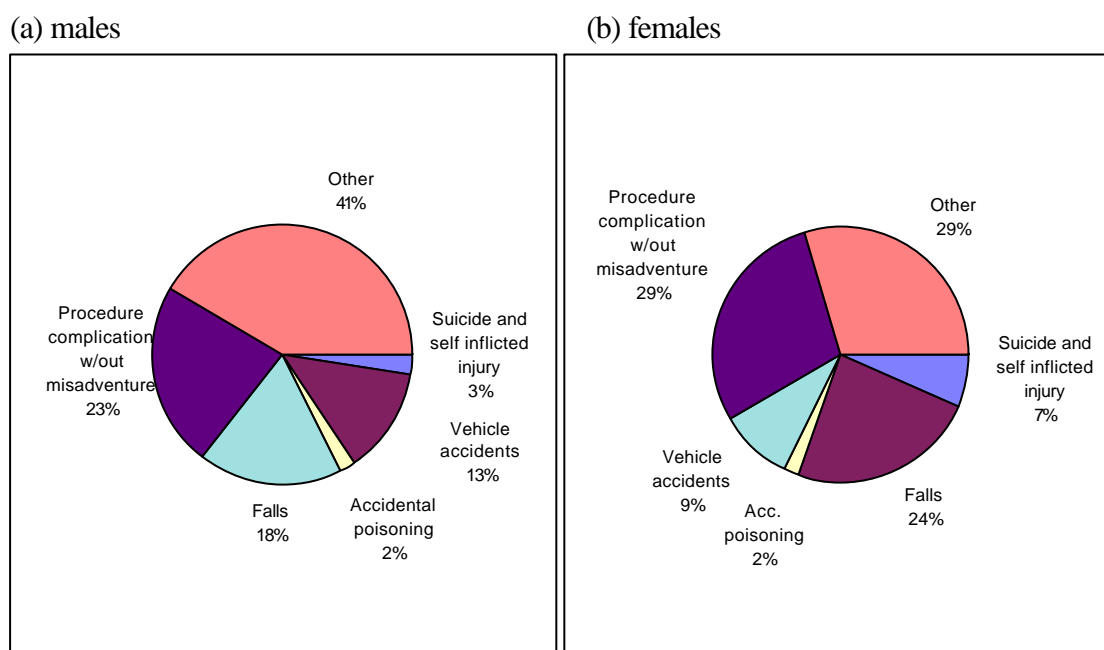
Although a suicide attempt may be the result of mental illness or mental disorders it may also be a reaction to extreme circumstances. Hospital diagnoses may not therefore be related to mental disorders. However, given that mental health services are often required in terms of prevention and/or treatment, a description of the utilisation of hospital services for people admitted as a result of self inflicted injury is given below.

Self inflicted injury accounted for only 0.4 per cent of ACT hospital separations in 1994-95. However, many of those who attempt suicide or suffer self-inflicted injuries do not seek medical attention, or are treated in emergency departments or by GPs without being admitted to hospital. Data on people who receive medical treatment without admission to hospital are not currently available. Therefore the hospital separations data inevitably underestimates morbidity due to these causes.

In 1994-95 there were 301 hospital separations for the category of external causes of injury and poisoning (suicide and self inflicted injury) in the ACT (112 males, 189 females). Two of these separations ended with the deaths of patients, both of whom were male. Self-inflicted injury for males and females accounted for 3 and 7 per cent of hospital separations due to injury, respectively. (refer Figure 11). This partly reflects the fact that males tend to use more lethal methods to attempt suicide and are more likely to die before receiving medical treatment. Males are also more prone to injury from other causes (refer Table 7, section 3.1.5). Females, while less prone to injury from other causes, attempt suicide as

often as males, but tend to use less effective suicide methods, and are therefore more likely to survive and receive treatment.

Figure 11: Breakdown of ACT hospital separations for external causes of injury and poisoning, by sex, 1994-95



Source: ACT Hospital Morbidity Data Collection 1994-95

The most commonly used method of attempted suicide in hospital separations in 1994-95 was ingestion of medicinal and other drugs. For males these methods accounted for 74.2 per cent of separations, and for females 89.4 per cent of separations. Within this category the most commonly used drugs for both sexes were tranquillisers and other psychotropic drugs (38.4 per cent of males, 45.0 per cent of females). However, there is no data available on how many of those admitted had overdosed on drugs prescribed to them for treatment of existing mental (or other) disorders. Given the evidence that a high proportion of those who commit suicide also suffer from mental disorders, the prominence of these drugs in suicide attempts may reflect their easy accessibility¹⁸ and excessive use (refer 5.4). The next most common drug type used in overdoses resulting in hospital admission were analgesics, antipyretics and antirheumatics. Many of these drugs, such as Paracetamol, are available without prescription and are therefore easily obtained. After drug overdose the next most frequent method resulting in admission to hospital for both sexes was the use of cutting and piercing instruments (11.6 percent of males, 5.8 per cent females).

No one was admitted to hospital after self-inflicted gunshot wounds in 1994-95. In the calendar year 1995 however, there were two deaths by self inflicted gunshot wounds, (2 males, aged between 35 and 55).

3.1.6 Suicide and length of stay

The length of stay for an external cause of injury gives some indication of the severity of that injury and the financial cost of its treatment. In the case of attempted suicide a higher length of stay may also reflect the risk of repeated attempts if environmental or social influences remain unchanged. The average length of stay for separations due to attempted suicide and self inflicted injury in the ACT in 1994-95 was 7 days for both sexes. The average length of stay for all hospital separations during the same period was 4.1 days. This indicates that those persons admitted to hospital as a result of suicide attempt and self inflicted injuries tended to be quite ill, and the cost of their treatment was presumably quite high.

Table 7: Estimated number of ACT hospital separations & ALOS for selected causes of injury & poisoning, by sex, 1994-95

External Cause	Male		Female	
	Cases	ALOS	Cases	ALOS
Vehicle accidents	485	6.9	257	7.0
Accidental poisoning	72	3.6	53	2.1
Falls	683	9.2	665	12.1
Procedure complications w/out misadventure	876	10.5	816	9.9
Suicide and self inflicted injury	112	7.0	189	7.1
Other	1597	5.0	827	7.0

Source: ACT Hospital Morbidity Data Collection 1994-95

Table 8 shows that for both sexes the greatest number of hospital separations for attempted suicide and self-inflicted injuries was in the younger age groups, with young women aged 15 to 24 being the largest group. This is consistent with the pattern of women attempting suicide as often as men, but having fewer completed suicides.

Table 8: Hospital separations due to suicide & self-inflicted injury, by age, by sex, ACT, 1994-95

Age Group (Years)	Male	Female	Total
5-14	0	5	5
15-24	34	61	95
25-34	41	53	94
35-44	23	34	57
45-54	8	25	33
55-64	2	5	7
65-74	2	2	4
75+	2	4	6
Total	112	189	301

Source: The ACT Hospital Morbidity Data Collection 1994-95

In 1994-95 no Indigenous persons were recorded as being admitted to hospital due to a suicide attempt or self inflicted injury. However, data from WA, SA and the NT suggest

that Indigenous males are at a high risk of suicide¹⁹. Furthermore, given that data are only available for those people who are admitted to hospital following self inflicted injuries, there is a high probability that morbidity due to self inflicted injury in this group is higher than available records suggest.

3.2 Occasions of Service Counting and Reporting data

The Occasions of Service Counting and Reporting (OSCAR) data is collected by ACT Mental Health Services. The collection includes data on service use by clients accessing the Mental Health Services and gives a profile of the type of clients using the services. OSCAR also includes information on diagnoses however, it can be difficult to diagnose patients who have mental problems and their diagnoses may change over time. Severity of conditions is not included. Initial baseline data from OSCAR will be available shortly and will give a comprehensive picture of services being provided by the ACT Mental Health Services.

3.3 National Mental Health Reports (1993-1995)

Under the National Mental Health Strategy, Commonwealth, state and territory governments agreed to reforms within mental health areas. As part of this agreement the Commonwealth monitors the progress of reforms by the state and territory governments in its National Mental Health Reports.

ACT achievements towards objectives in the National Mental Health Strategy are given below:

- ◇ The ACT has increased its spending on community services by 10% (\$0.8M) and on general hospital services by 1% (\$0.1M). As the ACT has no separate psychiatric hospital and low inpatient numbers, it is unable to reallocate funds from other resources. As a result, new service developments are resourced from new funds. The National Mental Health Strategy contributed approximated 53% of additional spending in 1994-95;
- ◇ The ACT has implemented continuity of care guidelines and introduced a computerised registration system in order to allow linking across multiple services. With these two procedures in place the ACT is now implementing case management models;
- ◇ The ACT has introduced new legislation titled The ACT Mental Health (Treatment and Care) Act 1994. It is unique in that it incorporates provisions that relate to a wide group of persons who may be a danger to themselves or to others, not just those with a mental illness;
- ◇ The ACT has a Consumer Advisory Group, as do other states and territories, to provide advice on government policies, consumer rights & attitudes and improving outcomes for those with mental illness in the community;

- ◇ The ACT has, along with most states, reported improved coordination between health and public housing agencies. A working party between staff in the ACT Housing Trust and from Mental Health Services is looking at practical solutions to common concerns and will develop protocols between the two services;
- ◇ In terms of promotion and prevention the ACT has focussed particular attention on young people and schools in promoting information and advice about mental illness.²⁰

In addition to the above achievements the National Mental Health Reports give information outlining the ACT performances with regard to indicators for mental health services. The indicators are summarised in Table 9. A large component of ACT community spending is directed to residential facilities rather than outpatient, outreach services and other services designed to provide care and treatment for people living in their own homes. In addition, the ACT provision of 24 hour-staffed community residential beds provided similar functions to non-acute beds in psychiatric hospitals, and partially offset the lack of such services in the ACT.

Table 9: ACT mental health performance compared to national average, 1993-95

Indicator	ACT		National Average
	1993-94	1994-95	1994-95
State spending per capita	\$50.5	\$51.8	\$58.3
Service Expenditure (%)			
- community services	58%	60%	35%
- co-located hospitals	42%	40%	22%
- separate psychiatric hospitals	-	-	44%
Inpatient Services			
- total psychiatric beds	52	52	-
- total beds per 100,000 population	17.4	17.1	39.9
- acute beds per 100,000	17.4	17.1	20.6
- acute beds co-located	100%	100%	60%
- inpatient expenditure per capita	\$20.6	\$20.5	\$38.5
Community Residential Services			
- expenditure per capita	\$28.1	\$30.2	\$20.8
- service expenditure directed to NGOs	2.5%	2.2%	2.8%
24 hours staffed community residential services			
- total no. of beds	60	60	-
- adult beds per 100,000	20.1	19.7	2.6
- psychogeriatric beds per 100,000	-	-	2.0
Workforce			
- number FTE	251	235	-
- % FTE in community-based services	55%	64%	32%
- FTE per 100,000 (ambulatory direct care)	22.8	23.7	23.4
MBS-funded Consultant Psychiatric services			
- Attendances per 100,000 population	5.7	6.2	12.1
- % population seen	1.0%	1.2%	1.6%
- Benefits paid per capita	\$4.8	\$5.0	\$10.5

Note: MBS refers to Medical Benefits schedule. FTE refers to full time equivalent.

Source: *National Mental Health Report 1995*, Commonwealth Department of Health and Family Services

4. Mortality

Fortunately, in the majority of cases, only a relatively small number of people die as a result of mental disorders. This section looks at those who have died due to mental disorders and also examines mortality as a result of suicide given that at least 90% of those who attempt suicide have a mental disorder at the time of the attempt or completion of suicide.^{21, 22}

Death rates for mental disorders in Australia are slowly increasing. This may reflect the ageing of Australia's population, since many deaths in this category are the result of dementia, including Alzheimer's disease, which tend to occur during old age. In addition, medical practitioners are increasingly inclined to nominate mental disorders as the cause of death, increasing the death rates attributed to these disorders²³. Suicide rates in Australia though relatively stable, are still a cause for concern. Youth suicide is of particular concern, with deaths in this group resulting in the loss of many potentially productive years of life.

4.1 Deaths due to mental disorders

In 1995, of 29 deaths due to mental disorders (excluding suicide) in the ACT, 13 were male and 16 were female (refer Table 10). The mean age was 76.6 years. Most of these deaths were the result of uncomplicated senile dementia (20), with 1 death caused by arteriosclerotic dementia and 8 deaths due to complications of alcohol and drug abuse (6 males and 2 females). While males outnumber females in younger age groups, the majority of elderly residents are females (63%). Given that most of those who die as a result of mental disorders are elderly, it is not surprising that females make up the majority of these cases.

Table 10: Age-sex profile of ACT deaths due to mental disorders, 1995

Age group	Males	Females
0-24	1	0
25-44	2	1
45-64	0	0
65-74	2	0
75-84	3	5
85+	5	10
Total	13	16

Source: ABS unpublished data, *Causes of Death ACT 1995*

Table 11 shows that, since 1989, crude death rates (CDR) for mental disorders have been lower than national rates for both sexes. In addition, since 1990, the CRD for ACT males has generally been lower than that for ACT females.

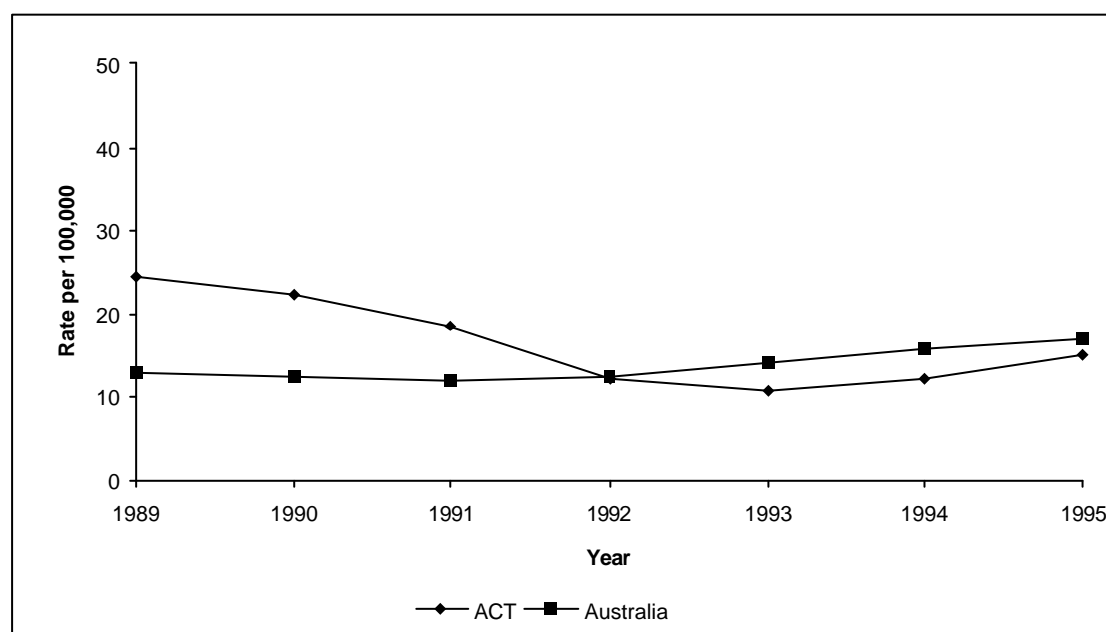
Table 11: Crude death rates for mental disorders, by sex, ACT & Australia, 1989-95

Year	Males			Females		
	ACT Deaths	ACT CDR	Aust. CDR	ACT Deaths	ACT CDR	Aust. CDR
1989	6	4.3	11.9	5	3.6	13.7
1990	5	3.5	11.2	7	5.0	12.6
1991	4	2.8	10.0	5	3.5	11.7
1992	5	3.4	11.0	2	1.4	13.5
1993	2	1.3	11.4	8	5.4	15.2
1994	5	3.3	14.2	18	12.0	19.2
1995	13	8.5	15.7	16	10.6	19.5

Source: ABS unpublished data, *Causes of Death ACT 1993-95*
 ABS, *Causes of Death Australia, 1989-95*, ABS Catalogue No. 3303.0

Figure 12 shows that, after adjusting for age, death rates due to mental illness for ACT residents were higher than the national rate in 1989. However, the ACT rate has declined since that time. Since 1992 ACT mortality rates for mental disorders have, in fact, been slightly below the national rate. Death rates for ACT and Australia increased slightly from 1993 to 1995.

Figure 12: Three year moving averages for age standardised death rates for mental disorders, persons, ACT and Australia 1989-95



For explanation of moving average, refer to Section 9.3
 Reference population is that of Australia June 30 1993
 Sources: ABS, *Estimated Resident Population By Age and Sex States and Territories of Australia 1989 to 1995*, Cat No. 3201.0

ABS, *Unpublished data on deaths due to mental disorders in the ACT, 1989 to 1992*
 ABS, *Causes of Death Australia 1989 to 1995*, ABS Cat No. 3303.0

Table 12 shows that 65 per cent of ACT residents who died as a result of mental disorders were Australian born (19 of 29). Eighty-two per cent of women who died as a result of mental disorders were Australian born, while only 47 per cent of men were Australian born. There was *no* statistically significant relationship between death due to mental disorders and being born outside Australia. The mean age at death due to mental disorder for foreign born people was 80.2 years, 70 per cent of whom died of uncomplicated senile dementia.

Table 12: Deaths due to mental disorders by country of birth, ACT, 1995

Country of Birth	Male	Female
Australia	6	13
NZ/UK/US	3	1
Europe	2	1
Asia	0	0
Other	2	1
Total	13	16

Source ABS unpublished data, *Causes of death ACT 1995*

In the period 1994-95 the majority of people who died as a result of mental disorders were widowed, and most of these people were women (refer Table 13). This probably reflects the previously discussed fact that most of those who die as a result of these disorders are elderly, and that women make up the majority of the elderly population.

Table 13: Deaths due to mental disorders, by sex and marital status, ACT, 1994-95

Marital Status	1994		1995	
	Males	Females	Males	Females
Never married	1	2	2	-
Married	3	4	5	2
Widowed	1	12	3	13
Divorced	-	-	2	1
De facto	-	-	1	-
Total	5	18	13	16

Source: ABS *Causes of Death, ACT, 1994-95*

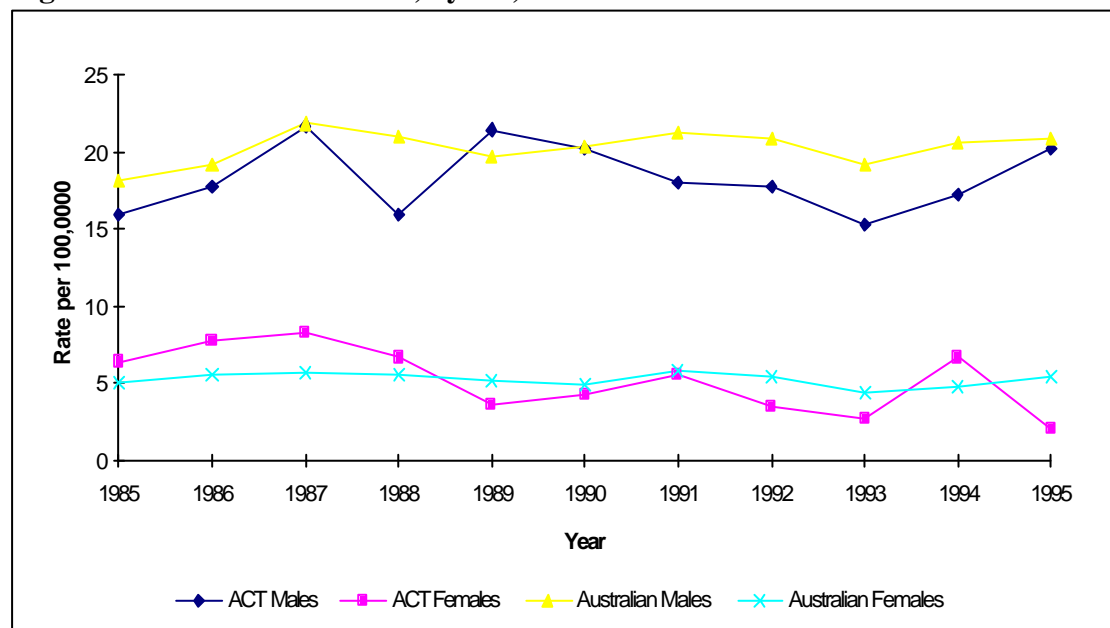
Due to the small size of the Indigenous population in the ACT, death rates can fluctuate greatly from year to year. Therefore it is difficult to discuss trends in mortality for Indigenous people within the Territory. In 1995 no Indigenous ACT residents were reported to have died from mental disorders. However it has been estimated that Indigenous mortality rates in the ACT are similar to those in Western Australia, South Australia and the Northern Territory²⁴, where mental disorders accounted for 3 % of all Indigenous deaths in the period 1992-1994²⁵.

4.2 Deaths due to suicide

The majority of suicides are associated with mental disorders, especially severe depression and schizophrenia²⁶. It has been estimated that about 90 per cent of adolescent suicides are preceded by signs of mental illness, especially depression²⁷. However it is important to note that suicide is not necessarily a result of mental disorders, and may be the action of psychologically healthy persons who find themselves in difficult circumstances which they are unable to cope with at the time. Therefore, ACT Mental Health Services workers do not necessarily come into contact with people at risk of committing suicide and in many cases cannot take steps to prevent suicides.

In 1995, 31 males and 3 females committed suicide. The majority of these people (18 males and 2 females) were aged 25 to 44 years. As Figure 13 shows, crude suicide rates for males and females in the ACT have remained relatively steady between 1985 and 1995 and lie close to those of the total Australian population.

Figure 13: Crude suicide rates, by sex, ACT and Australia 1985-95



Sources: ABS, *Causes of Death Australia*, ABS Catalogue No. 3303.0

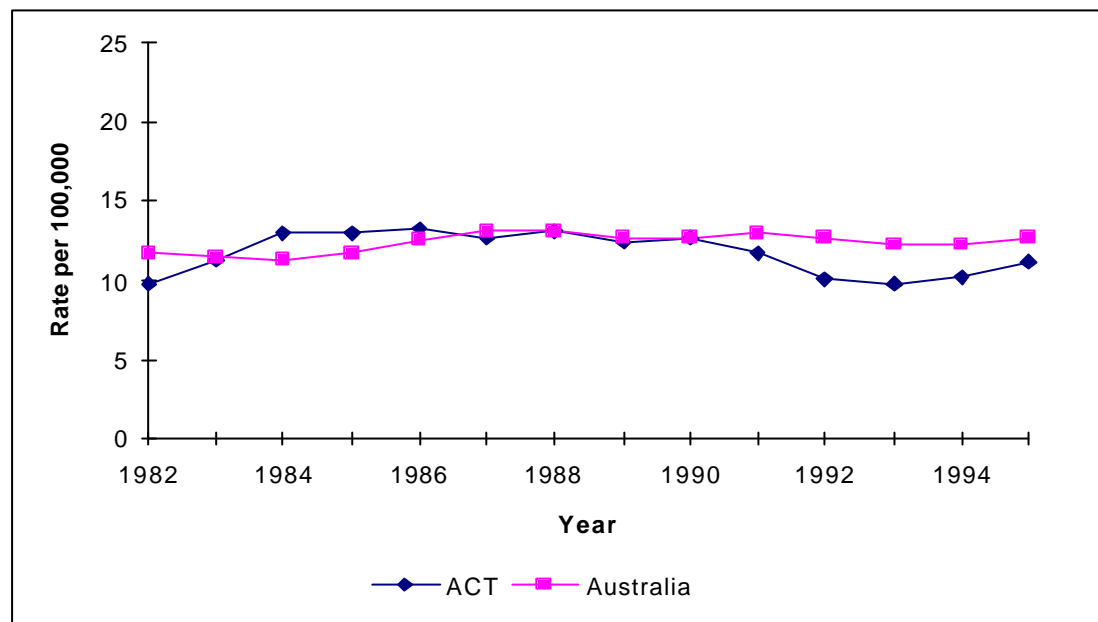
ABS, *Estimated Resident Population by Sex and Age, States and Territories of Australia*, ABS Catalogue No. 3201.0

ABS, *Australian Demographic Statistics*, ABS Catalogue No. 3101.0

ABS, *Demography, Australian Capital Territory*, ABS Catalogue No. 3311.8

Figure 14 illustrates that, after calculating 3 year moving averages to smooth out fluctuations caused by small numbers of deaths, the ACT standardised suicide rate for persons was slightly lower than the national rate from 1989 to 1995, but increased slightly since 1993.

Figure 14: Three year moving average of age standardised suicide rates, persons, ACT and Australia, 1982-95



Sources: ABS, *Causes of Death, Australia, 1989-95*, ABS Catalogue No. 3303.0
 ABS, *Estimated Resident Population by Sex and Age States and Territories of Australia*, ABS Catalogue No. 3201.0
 ABS, *Australian Demographic Statistics*, ABS Catalogue No. 3101.0
 ABS, *Demography, Australia Capital Territory*, ABS Catalogue No. 3311.8
 ABS, *Suicides Australia 1982 to 1992*, Catalogue No. 3309.0
 ACT Department of Health & Community Care, *ACT's Health: A Report on the Health Status of ACT Residents*, 1995

Males aged 15 to 24 years are at a particularly high risk of committing suicide²⁸. From 1989 to 1995, 44 ACT residents aged 15 to 24 committed suicide, 35 of whom were male. The death rate due to suicide for males in this age group was lower for the ACT than the national rate from 1989 to 1995. In 1994 and 1995 the male suicide rate in this group was relatively stable, at around 13.7 per 100,000 for both years, compared to the national rate of 27 and 25 per 100,000. In 1995 the ACT had four deaths, all male, in this age group. Of these deaths three were Australian born, one was born in Europe.

A recent ACT government report identifies homeless youth as one of several groups suffering inequities in health status²⁹. In a study of homeless and potentially homeless youth, of whom 45 per cent had reported suicide attempts, a substantial number reported past physical and sexual abuse. Almost 75 percent of subjects in this study reported family histories of alcohol and drug abuse. Sibthorpe et al argue that suicide intervention strategies for this group must pay particular attention to the impact that troubled home environments and abuse have upon the mental health of at-risk youth³⁰.

Table 14 shows that the majority of ACT residents who committed suicide in 1995 were Australian born (22 of 34). Of the Australian born suicides, 20 were male. In the Asian born group there was 1 female suicide only. In the other foreign born groups, all those who

committed suicide were male. However the number of deaths in these categories are small and little that can be inferred from these observations.

Table 14: Deaths due to suicide, by country of birth, by sex, ACT, 1995

Country of Birth	Male	Female
Australia	20	2
NZ/UK/US	4	0
Europe	6	0
Asia	0	1
Other	1	0
Total	31	3

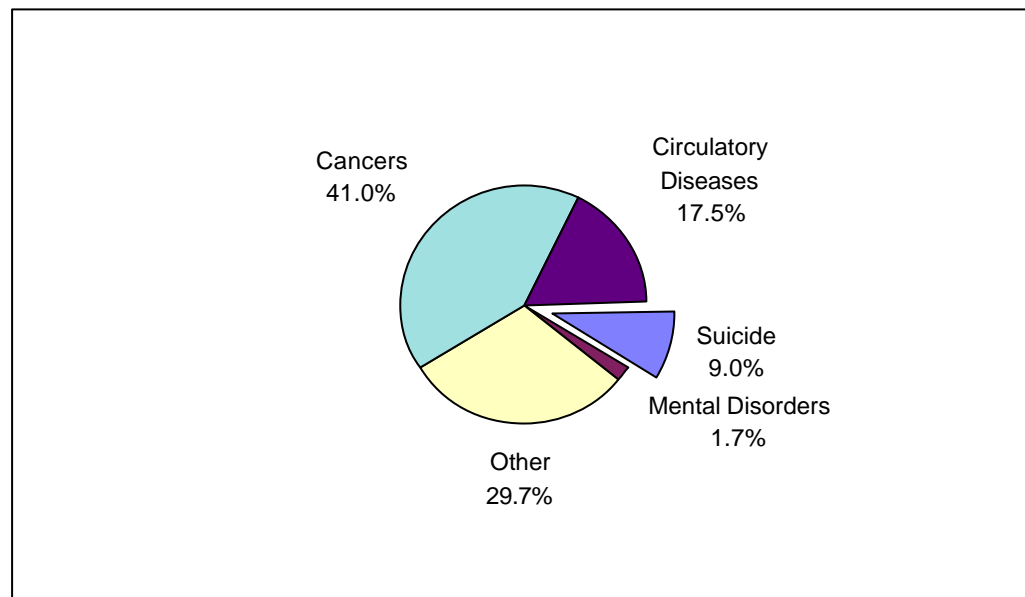
Source: ABS unpublished data, *Causes of death ACT 1995*

In the ACT there was one Aboriginal death due to suicide in 1995. Due to the small size of the Aboriginal population in the ACT, comparison of suicide rates in this group with those of Aboriginal populations in other states and territories is unlikely to be fruitful. Data from larger Indigenous populations indicate a high risk of suicide in this group. Anderson et al report that, in the period from 1992-1994, in WA, SA and the NT combined, injury and poisoning was the second most common cause of death for Indigenous males, and the third most common for Indigenous females³¹. Approximately one third of these deaths were due to suicide, with the Indigenous male suicide rate almost double that of non-Indigenous males³².

4.3 Years of potential life lost

The suicide of a young person places a great emotional toll on surviving relatives and friends. The loss of many potential years of productive life whenever a young person commits suicide is also a great economic cost to society. Figure 15 shows that mental disorders, which caused 2.6 per cent of all deaths, accounted for only 1.7 per cent of potential years of life lost in the ACT (210 years). However suicide, which caused 3.1 per cent of deaths, accounted for 9 per cent of the total years of potential life lost in the ACT (1101 years). This is an indicator of the toll that suicide takes on younger persons.

Figure 15: Years of potential life lost, major causes, ACT, 1995



Standardised to Australian population as at June 30 1993
Source: ABS unpublished data, *Causes of Death ACT 1995*

5. Selected areas of interest

This section examines major areas currently being studied in the literature and where possible, a profile of the ACT in regard to these areas of interest is developed.

5.1 *Child and adolescent mental disorders*

There is currently a focus in research on the development of mental disorders during childhood and adolescence and the prevention of these disorders. It is generally agreed that the number of children and adolescents suffering from some form of mental disorders to be between 10-18 per cent in inner cities both internationally and in Australia.³³ This equates to between 5800 and 8600 ACT children and adolescents in the 5-17 age group. These numbers become more important in the context of a study showing that those who develop mental disorders at an earlier age become more severely impaired and are more likely to have comorbid diagnoses.³⁴ The resulting cost both socially and financially make it important to understand the nature of mental disorders through childhood and adolescence in order that better measures can be taken in terms of prevention, treatment and quality of life.

Risk factors outlined below show the circumstances in which a child or adolescent is *more likely* to develop a mental disorder. The National Health and Medical Research Council (NH&MRC) state in their paper on prevention that while some risk factors will favour the onset of particular mental disorders, most risk factors tend to be generic and include:

- ◇ Familial factors, ie parental discord, parental difficulties through alcoholism and parental psychiatric disturbance;

- ◇ Emotionally stressful life event, ie bereavement, loss through separation or divorce, physical illness, witnessing violence;
- ◇ Genetic factors, ie development of the central nervous system and biological assaults through pregnancy, birth and later life; and
- ◇ Social factors.³⁵

These findings are confirmed in a review of the epidemiology of psychiatric disorders in children and adolescents. The review also points out that there are now studies being carried out looking at the effects of the time, duration and intensity (the degree of exposure and the number of different risk factors to which the child is exposed) of exposure to risk factors.³⁶ This type of information will enable the development of strategies to target specific high risk groups.

The NH&MRC paper recommends prevention measures in terms of reducing risk factors. It suggests programs involved in creating a harmonious family environment, including less parental discord and better parenting, including the support for mothers through pregnancy and early childhood.³⁷

Gender and age also play an important role in the development of mental disorders. In fact, there is evidence to show that the rates of psychiatric disorders change with age, a classic example being suicide. (refer Sections 1.1, 3.1.5 and 4.2). There are also studies showing clearly that different disorders change differentially in boys and girls and that pathways to specific disorders in adulthood also vary between males and females.³⁸

Provision of appropriate services for children and adolescents can be difficult. The two characteristics that need to be addressed are the diversity of mental health service providers and the gaps between the need for treatment and service use amongst children and adolescents.³⁹ It is hoped that ACT gaps in service provision will become clearer through initiatives such as that being undertaken by the ACT Division of General Practice through its Youth Health Project (refer Section 6.8).

ACT Mental Health Services provide services, for those under 18, through the Child and Adolescent Mental Health Services (CAHMS). These services are for those suffering moderate to severe emotional behaviour or psychiatric problems. They have a multi-disciplinary team consisting of psychiatrists, social workers and psychologists. Their range of services include counselling, the Adolescent Outreach Program for homeless children, parent education programs and the CAMHS-ED Program, a joint initiative between the ACT departments responsible for health and education, to address severe behavioural problems in schools.

5.2 The ageing population and dementia

The National Action Plan for Dementia Care, defines dementia as ‘the loss of cognitive abilities in someone previously intellectually intact’. The most well-known characteristic of dementia is a serious loss of memory. However, other symptoms may include language

problems, impaired comprehension, reasoning and judgment, and gradual loss of ability to carry out or undertake normal tasks of everyday living.⁴⁰

Nearly half the cases of dementia are caused by Alzheimer's disease, a disease in which brain tissue degenerates in a characteristic way. Dementia also may result from a series of small strokes called multi-infarct dementia. In addition, there are a large number of less common causes.

Although younger persons can suffer from dementia the great majority of sufferers are elderly. There has been a sharp increase in the number of deaths due to dementia in Australia since 1991. Part of this rise may be due to an increase in the numbers of the elderly. However, an increasing tendency for doctors to diagnose dementia as the underlying cause of death of elderly patients also contributes to this rise⁴¹.

Since the incidence of dementia increases with age⁴², and the ACT population is slowly ageing, the prevalence in the ACT can be expected to rise over time. However, even though the elderly population in the ACT is growing more quickly than the national average, the number of dementia cases is not expected to increase significantly until well into the next century (ie. the increase is slow).

In 1995 in the ACT, there were 21 deaths resulting from dementia. From 1986 to 1993 the percentage of all deaths attributed to senile and presenile dementias and senile organic psychoses was relatively stable, sitting below 1 per cent. Since then, the percentage of all deaths attributed to these conditions has increased to approximately 1.9 per cent in 1995. Little can be inferred from this observation, given the small numbers involved. An increased tendency for medical practitioners to attribute death to mental disorders may be a significant factor in any short term rise in the death rate for these conditions.

There are 1,266 hostel and nursing home beds available in the ACT at this time. Details of accommodation is outlined below:

Table 15: Residents living in ACT facilities, February 1997

	Hostels	Nursing Homes
Total number of residents	747*	519
No. of residents with dementia	230	305
No. of residents with dementia in dementia specific areas	40	183

* There are actually 776 places, but on the day of survey, 23 were unoccupied.

Source: Commonwealth Dept of Health and Family Services, ACT Office

5.3 Postnatal mood disorders

There are three categories often included under the general term postnatal mood disorders. All are experienced in the period after childbirth and are largely differentiated by their severity.⁴³

◇ The least severe of the postnatal mood disorders is *Maternity Blues* and occurs the first few days following delivery. This is the most common of the three conditions with estimates of prevalence varying from 15% to 80% of all births. The most common symptoms are confusion, anxiety and unstable moods. This is a relatively brief and mild condition which generally resolves itself without treatment.⁴⁴

◇ *Postnatal depression*, usually occurring three to six months after postpartum, is deemed to affect between 10% to 20% of all childbearing women.⁴⁵ It is a non-psychotic clinical depression. The major symptoms include loss of interest in usually pleasurable activities, social withdrawal, guilt, difficulties in decision-making, irritability, anxiety and sometimes suicidal thoughts.⁴⁶ It is commonly associated with feelings of hopelessness, inadequacy and being unable to cope or care for a new baby. It is generally agreed to be the result of complex interplay of influences such as biological, psychological and social factors. Given the number of women suffering postnatal depression protocols are needed to recognise, diagnose, and treat postnatal depression since many women suffering go undiagnosed and untreated. This is being addressed in the ACT by the multi-disciplinary and multi-level approach between GPs and other service providers (refer section 6.8). These women need social support, counselling, practical assistance and appropriate medical care.⁴⁷ Services such as those provided by the Queen Elizabeth II Hospital assist in alleviating the problem.

There are currently no ACT figures showing the incidence of postnatal depression. However a research project aiming to develop such a profile, is being undertaken in 1997 through the Clinical School at The Canberra Hospital. In addition, the ACT Community Health Unit is working towards establishing protocols to identify and refer women with health problems, including postnatal depression, to appropriate health services, community organisations and support groups. They are also establishing a 24 hour telephone counselling and information service, staffed by trained counsellors, which will provide advice and referrals on health issues such as postnatal depression.

◇ *Postpartum or puerperal psychosis* is a severe condition and usually occurs within the first 30 days following childbirth. It affects approximately 2 in every 1,000 women.⁴⁸ Women suffering from this severe disorder have symptoms including agitation, restlessness, mood changes, and sleep difficulties. They may experience delusions or hallucinations. Given the severity, a higher level of treatment and care is needed. In some cases the mother may be admitted to special psychiatric care. Where there is a high risk to the child or mother's safety a mother may be separated from her baby. This illness frequently settles with treatment, but women may be at risk of having a recurrence or an ongoing disorder.⁴⁹

5.4 Co-occurring addictive and mental disorders

There is increasing concern about the co-existence of mental illness with addictive disorders. Issues linked to mental illness include the abuse of psychoactive substances such as alcohol, drugs (legal and illegal), tobacco, marijuana and hallucinogens. There is increasing evidence to suggest that substance abuse can precipitate or exacerbate mental illness. They certainly co-occur often.

Comorbidity between major depression and alcoholism in women for example is substantial and appears to result largely from genetic factors that influence the risk to both disorders, but environmental risk factors also contribute. However, genetic factors exist which influence the liability of major depression without influencing the risk for alcoholism, and *visa versa*⁵⁰.

One study in USA (along with many other studies) found the disturbing link between alcoholism, major depression and the high risk of suicide⁵¹. The depressed alcoholics in the study differed substantially from nonalcoholic depressed patients on only two depressive symptoms: suicidality (59% higher) and low self-esteem (22% higher).

Available data suggest that individuals with a psychiatric disorder are at increased risk of having a substance abuse disorder. For example, it has been cited that individuals with a history of major depression or anxiety disorder have double the risk of developing substance abuse disorder in later life; among young, chronically mentally ill patients, reported chemical abuse rates approach or exceed 50 per cent; alcohol abuse rates for individuals with bipolar disorder is about 20 per cent; and alcohol abuse rates for people with antisocial personality disorders is about 70 per cent⁵². Further research by the USA Epidemiological Catchment Area (ECA) study suggests that these figures are under-rated. It found that life time prevalence of alcohol disorder is highest in bipolar (46%) and schizophrenic (34%) disorders, followed by other affective (22%) and anxiety (18%) disorders. The general population had a prevalence of 17 per cent⁵³. Cuffel in his article on the ECA, concludes that about half of young people presenting with their first episodes of schizophrenia and bipolar disorder, will develop a substance use disorder in their lifetime⁵⁴.

Co-existing disorders are also hard to treat. It can be difficult to diagnose which, if any, is the major cause of problems. Dual diagnosed persons often find it impossible to admit to addiction or to treatment. They often lack social networks to support them. Providers, trained in mental illness *or* addiction can be unprepared or unskilled in treating the other presenting disorder. Since the treatments for the elements of dual disorders are usually quite different, it is often difficult to combine both treatments successfully, even if the provider is proficient in administering them (conflicting treatment philosophies).



6. ACT and National Initiatives

6.1 Health goals and targets

The ACT Department of Health and Community Care developed health goals and targets for, amongst other priority issues, mental health, in 1994 after considerable deliberation and consultation with key stakeholders. The goals and targets are:

Table 16: Health goals, mental health, ACT

- | |
|---|
| <ol style="list-style-type: none">1. Increase coordination across ACT mental health programs and services.2. Implement the ACT Mental Health Services Strategic Plan.3. Improve the mental and emotional well-being of all ACT residents.4. Reduce the impact of moderate to severe mental illnesses and emotional/behavioural disturbances on affected individuals, their families and the community. |
|---|

Source: *ACT Goals and Targets for the Year 2000*, ACT Govt Printer, Canberra, 1994

The Health Outcomes Reference Group has been established by the Department of Health and Community Care to consider strategies for the attainment of goals and targets.

6.2 Mental Health Policy Team

The ACT Government has established a Mental Health Policy Team. The functions of this team are to:

- ◇ develop mental health policy for the ACT;
- ◇ produce a Mental Health Care Annual Report;
- ◇ represent the ACT in negotiations at the state/territory or national level and with non-government organisations, businesses and the community; and
- ◇ in collaboration with the Commonwealth coordinate the implementation of objectives outlined in the National Mental Health Strategy.

In addition to the functions outlined above the Mental Health Policy Team released a booklet outlining the strategies for mental health services in line with the National Mental Health Strategy. (These have also been reported in the National Mental Health Reports, refer 3.3).

6.3 ACT Mental Health Services

The ACT Mental Health Services, which is part of The Canberra Hospital, is involved with the over-arching clinical care of people with mental illness and the implementation of preventative and educative strategies for reducing mental illness in the Territory. It embraces the use of multi-disciplinary teams based on a case management approach, early intervention and continuity of care leading to the rehabilitation of clients within mainstream services. ACT Mental Health Services is one of the few mental health services fully accredited by the Australian Council of Healthcare Standards.

It operates in three components:

- * Community Mental Health which includes Forensic and Child and Adolescent Services and operates Adult Regional Services and The Crisis Team;
- * Psychiatric Rehabilitation Services; and
- * Psychiatric Inpatient Services in the 32 bed acute psychiatric unit at The Canberra Hospital.

Recent initiatives by the ACT Mental Health Services, in response to client changing needs include:

- * development of a five year strategic plan for 1993-98;
- * Community Mental Health Services attends psychiatric ward rounds at The Canberra Hospital and at Calvary to assist with discharge planning and continuity of care;
- * 24 hour crisis team, after hours crisis assessment team, and triage system. These teams offer assessment of crisis, advice and counselling for the client, family or carer in crisis, and referral to appropriate services;
- * A&NZ Mental Health Services Achievement Award winning, innovative service model in Psychiatric Rehabilitation Service using clinical and non-clinical interventions to assist people live and participate in the community;
- * expansion of activities in the Psychiatric Rehabilitation Services to include neuro-cognitive training, development of life plans with clients to assist in rehabilitation and to encourage clients to be cognisant of their health (especially in monitoring their mental health) and sensitive vocational training including the establishment of a training coffee shop. The coffee shop venture is a joint program run by PRS and Canberra Schizophrenia Fellowship with training provided by the Commonwealth Employment Service (over 50% of trainees have developed sufficient skills to move into mainstream education, employment or community activities or to benefit from further mental health support systems);
- * trainee child psychiatrist position established in Child and Adolescent Services;

- * various publications as a result of evaluations, research and initiatives, have been developed (refer Table 17);
- * enhancement of community based resources is being planned;
- * changes to program structure are being undertaken to include aged, child and adolescent sections;
- * development of an Aboriginal and Torres Strait Islander health needs report detailing recommendations for action for the Mental Health Services;
- * alterations to client data base to enhance accurate and relevant data collection.

ACT Mental Health Services considers early psychosis as a priority in allocation of clinical work, and in determining priorities of treatment. The approach to early psychosis will be a coordinated, across program assessment and treatment plan, with active involvement of families, carers, referrers and support workers.

The treatment approach will be developed in conjunction with the National Early Psychosis Project (NEPP). NEPP is a collaborative endeavour between the Commonwealth, state and territory governments to develop and promote a national model of best practice in the early intervention of psychosis.

ACT Mental Health Services undertake applied research in order to address special needs within the ACT. This task has been approached with the purpose of achieving national goals and objectives as outlined in the National Mental Health Strategy and the Mental Health Services Strategic Plan. The initial outcome of this process has been a series of reports summarised in the following table.

Table 17: Research Reports completed by ACT Mental Health Services

Report	Date	Purpose
First Onset Psychosis Project	May 1995	To identify local needs for young people with first onset of psychosis, make recommendations for service provision and to commence some strategies to achieve agreed goals.
Mental Health Research: Principles and Directions	June 1995	To create an infrastructure to drive and support research within ACT Mental Health Service.
Dual Diagnosis: HIV and Mental Illness	June 1996	<ol style="list-style-type: none"> 1. To report on the special mental health needs of people with HIV and mental illness. 2. To address the implications for ACT Mental Health Services. 3. To develop a Directory on HIV and mental illness.
Case Management Project Stage One Report on Research Findings and Recommendations	October 1996	<ol style="list-style-type: none"> 1. To develop a framework for the case management model by examining individual needs, local demography, culture and other important areas which form the mental health service delivery system. 2. To form a foundation for the implementation of a case management system.

A directory of services has been produced by the ACT Mental Health Services in conjunction with Mental Health Resource (ACT) Inc in order to assist those suffering with mental illness and their families to access many of the existing groups and agencies offering services. Activity data for Mental Health Services is outlined in Departmental Annual Reports and is reproduced below:

Table 18: Activity data for Mental Health Services 1994-95 and 1995-96.

Service Type	94-95	95-96
24 Hour Crisis Service Community Mental Health		
Total number of contacts (a)	9,255	7,444
Number of contacts by point of contact		
Domiciliary	538	871
Office	3,683	3596
Telephone	5,085	2,951
Number of contacts by shift		
Morning	3,243	2,846
Evening	3,385	3,031
Night	1,203	1,017
Community Mental Health Services (b)		
New referrals	3,303	3,092
Total number of contacts (c)	39,733	34,045
Psychiatric Unit		
Available beds	32	32
Admissions	873	899
Average length of stay	8.69	9.47
Average occupancy	93.8%	n/a
Hostels		
Available beds	60	60
Admissions	24	33
Average occupancy	98.3%	90.1%
Psychiatric Rehabilitation Services		
New Referrals	71	43
Total number of contacts	12,509	14,258

(a) Changes in Crisis Team figures indicate a move from counting all telephone calls to counting occasions of service. (b) Including Child and Adolescent and Forensic Services. (c) The changes in Community Mental Health reflect the reduction in staff due to recruitment difficulties, particularly in Child and Adolescent Services.

6.4 Hostels and group homes

The ACT Government funds two hostels, one at Watson (4 villas totalling 40 beds) and one adjacent to Calvary Hospital (Hennessy House - 2 villas totalling 20 beds with capacity for 3 more villas). The hostels cater for people unable to cope in less structured environments and offer rehabilitation programs to assist clients to develop living skills. Watson Hostel residents tend to have less dependency needs than those at Hennessy House, but tend to also stay in the hostel environment for long periods of time.

In addition, Psychiatric Rehabilitation Services runs two group houses and three flats where people may live in a supportive environment and receive assistance with their rehabilitation needs.

6.5 *Calvary Hospital Mental Health Services*

Calvary Hospital has a 20 bed inpatient service supported by assessment services offered by the psychiatric assessment team and various therapy programs for inpatients and day patients such as those offered by the multidisciplinary team (psychiatrists, psychiatric nurses, psychologists, social workers and occupational therapists) on depression, anxiety, eating disorders and adult survivors of sexual assault. Regular family, friends and carers meetings are also held.

6.6 *Community grants*

In recognition of the crucial role of non-government involvement in enhancing the mental health of the Territory, the ACT Department of Health and Community Care administers a range of grants to non-government organisations with the aim of providing complementary health-related services that are not provided by Government. Those grants allocated in 1995-96 which impact on people with mental illness include:

HEALTH GRANTS PROGRAM

GROW Canberra	\$13,500
Mental Health Resource (ACT)	\$60,000
Psychiatric Rehabilitation Service	\$58,000
Richmond Fellowship ACT Inc	\$75,000
TRANSACT	\$48,000
Woden Community Service	\$15,500

AGED AND DISABILITY GRANTS

ACROD	\$8,660
ADACAS	\$82,703
Belconnen Community Service	\$299,416
Canberra Seniors Centre	\$27,397
Carers Association	\$92,855
Carers Training in the ACT	\$50,415
CENTACARE	\$381,815
Citizens Advocacy	\$26,607
Community Options	\$855,771
Disabled People's International	\$10,000
FaBRiC	\$1,026,143
Focus ACT	\$889,804
Friends of the Brain Injured	\$1,423
HACC - Home Help	\$1,517,647
Handyhelf ACT Inc	\$372,940
Home Help ACT Inc	\$1,718,838
Leapfrog Inc	\$7,380
Mental Health Foundation	\$38,234
Mirinjani Day Centre	\$8,261
National Brain Injury Foundation	\$62,365
North Belconnen Day Care Centre	\$36,872
Northside Community Service	\$260,344
People First ACT Inc	\$10,000
Respite Care ACT Inc	\$998,064
Richmond Fellowship	\$50,700
Sharing Places	\$599,940
Southside Community Service	\$148,676
Tuggeranong Community Service	\$254,033
Weston Creek Community Service	\$160,885
Woden Community Service	\$589,907
Woden Senior Citizens Club	\$29,182

6.7 Community organisations

There are a number of community organisations which aim to serve the needs of people with mental illness. Many are funded or partially funded by ACT Government, some are self-funded. Some of the organisations include:

- ◇ *ACT Consumer Advisory Group* which provides advice to the ACT Government on issues concerning mental health. (eg in 1995 they advised the Australian Federal Police on the management of people with a mental illness who come in contact with law enforcement).
- ◇ *A.C.T. Disability, Aged and Carer Advocacy Service (ADACAS)* is a service provided to those with disabilities, including psychiatric disabilities, the aged and their carers. As part of the service they provide an advocacy where they promote, protect and defend the rights of their clients. In addition they provide information, education and referral on matters related to the rights and responsibilities of their clients.
- ◇ *Australian National Association for Mental Health (ANAMH)* is based in Canberra and has an ACT branch. It aims to promote mental health and to assist in the prevention

of mental illness and mental health problems, to promote co-operation between groups (government and non-government) and organise events to further its aims. It organises conferences and National Mental Health Week each year. The next national conference will be held in the ACT in August 1997 under the theme banner of 'Life Chances and Mental Health - Forging Ahead to a new Millennium'.

- ◇ *Canberra Schizophrenia Fellowship* is a community group which provides support for those with schizophrenia and other major mental illnesses, and their families and friends. It negotiates with the government and community on issues surrounding the needs of those with schizophrenia and other major mental illnesses. Recent negotiations include making submissions regarding changes to the supported employment policies to the members of Parliament and the Commissioner for Disability Discrimination; and making representations to the ACT Government about the transfer of a Villa at Hennessy House to the Drug and Alcohol Service. The Fellowship promotes understanding of schizophrenia illness in the community and emphasises the right of people with mental illness to be treated with dignity.
- ◇ *Community Options* which aims to assist people who are frail aged, have a disability or have dementia, to remain living at home, with increased independence and quality of life. Activities include provision of case management and co-ordination of support services.
- ◇ *4S Group* is a self-supporting group for schizophrenia sufferers, which meets monthly to provide a social network for members, foster social and recreational activities, arrange speakers on topics of interest, run groups that help members deal with issues such as stress and communication, and to educate the community in understanding the needs of people who have experienced schizophrenia.
- ◇ *GROW Canberra* is the ACT branch of the international self-help mental health program which aims to assist people's recovery from mental illness. It holds weekly meetings for its members for sharing experiences, group work on members' problems and adult education on rehabilitation; and provides a residential program. Members follow a 12 step program and strive to help one another accomplish personal change, to overcome personal disorder and to attain personal maturity.
- ◇ *Mental Health Foundation ACT Inc* seeks to improve the mental health services of the ACT and promote better community mental health. It aims to ensure that accessible, appropriate services are provided in areas such as primary care and community facilities, supported accommodation, employment for people with psychiatric disabilities. Activities include the provision of housing, respite and support services through its Friendship House program, educational presentations in ACT schools on behalf of Mental Illness Education Australia, representation on key bodies concerned with mental health, liaising with government and non-government organisations to enhance co-operation and co-ordination of services, and assistance in the exchange of information about mental health
- ◇ *Mental Health Resource ACT Inc* provides information and referral on mental health issues and access to mental health support groups for individuals, families and friends. The Resource has members such as the Mental Health Foundation (ACT), the Manic Depression Support Group, the Schizophrenia Fellowship Inc, the 4S Group and the Richmond Fellowship of the ACT Inc. Activities include the provision of information on mental illness, support for public events such as Mental Health Week, support for

member groups to achieve their own aims, and a telephone contact and referral service for people in the Canberra region.

- ◇ *Respite Care (ACT)* is funded by the ACT and Commonwealth Governments to offer a range of services including respite care at home for people with disabilities, frail aged people and their carers (by selecting support workers for times when the regular carer is absent, and providing 'back-up' support for care in the home which may include personal care), priority help for those people whose long-term caring arrangements could be at risk without access to relief care, and a personalised service of carefully selecting experienced support workers appropriate to the needs of the recipients. It also runs a free information service for frail aged people, people with disabilities, and their carers titled 'Infolink', which provides information on assistance available in the ACT, costs involved, accessibility and where to obtain services. Its 'LeisureLink' program offers trained volunteer 'friendly neighbours' to people requiring home visits, companionship and assistance with outings. A feature of services offered is easy accessibility for people from non-English backgrounds.
- ◇ *Richmond Fellowship* aims to provide a range of supported accommodation and rehabilitation programs for younger adults with a psychiatric disability. It provides a residential program of transitional supported accommodation for people with a psychiatric disability in the ACT.
- ◇ *Torture Rehabilitation and Network Service (TRANSACT)* has a range of services for those in the community with torture or trauma experiences. Client services provided by TRANSACT include counselling, advocacy, medical services and intergovernmental services including language skills and housing. TRANSACT's work includes the provision of a mental health service for people across different cultural backgrounds (transcultural mental health).⁵⁵

6.8 ACT Division of General Practice initiatives

The ACT Division commissioned a study into the relationship of general practitioners (GPs) and people with mental health problems, how GPs could be assisted to enhance their treatments and how GPs could work most effectively with other local mental health carers and service providers. Results of the study were released in 1996⁵⁶. As a result the Division is pursuing the availability of grant funding for projects on such issues as youth suicide and depression amongst elderly people.

The Division has other projects which whilst not primarily for mental health, do deal with mental health issues. Examples of these are the Aged Care Committee which is interested in exploring the issue of depression amongst the elderly and the Youth Health Outreach which has a major mental health component focusing on the area of suicide prevention through GP education.

The Division, in a joint initiative, has been working with the ACT Mental Health Services to establish shared care arrangements between GPs, patients and mental health services. It is

hoped that information gathered, resulting from this project, will be integrated into protocols for the case management program being conducted by the ACT Mental Health Services.

The Division is currently working on a Youth Health Project which is looking at identifying the gaps in service provision. This will particularly look at service provision for those under 18 who have co-occurring mental health and alcohol and drug problems. Issues will be intersectoral and will include accommodation as well as medical care.

The Division has just completed a project aiming to encourage a multi-disciplinary, multi-level approach to management of postnatal depression by focusing on the integration of GPs into existing postnatal services.⁵⁷ As a result, initiatives were developed including core training, establishment of referral protocols, establishing networks between GPs, government and non-government service providers, and the involvement of GPs in antenatal care. The Division is now undertaking a follow-up project into the integration of services of primary and secondary postnatal depression services. The primary focus of this is prevention of postnatal depression.

6.9 Private services

There is a small private mental health sector in the Territory, which includes health professionals working in a private capacity and ten private psychiatrists.



7. GLOSSARY

Age-sex standardisation - demographic technique for adjusting for the effects of age and sex between populations, which allows comparisons between populations.⁵⁸

Age-sex standardised death rate - the overall death rate that would have prevailed in a standard population (eg the 1991 Australian population) if it had experienced at each stage the death rates of the population being studied.⁵⁹

Age-sex standardised ratio - The expected number of events is given by calculating the number of events which would have occurred if the rates for each age/sex group in a given population (the standard) were applied to the population of interest.⁶⁰

Anxiety is a normal emotion which affects people when they are faced with danger or a threat (stress). It may result in feelings of unease, worry, loss of sleep, and/or physical symptoms such as heart palpitations, muscle pain, headaches, nausea and indigestion.⁶¹

Anxiety Disorder refers to the condition where a person worries constantly and irrationally about harm befalling them or others.⁶² When they worry intensely, and their lives are affected by their worry, they are said to have a *phobia*.

Bipolar disorder or *manic depression* refers to a depressive disorder resulting in the person alternating between periods of mania involving extreme happiness, overactivity, rapid speech, lack of inhibition (and, in more serious cases, delusions of grandeur), and depression.⁶³

Cardiovascular diseases (CVD) can be described as diseases relating to the heart and blood vessels. They are diseases of the circulatory system.

Crude death rate is the number of deaths per 1,000 population (unless otherwise stipulated) in a given year.⁶⁴

Depression is a feeling of low spirits which may result in sadness, numbing of feeling, loss of interest in activities, anxiety and a negative view of the self. *Psychotic* depression is a severe form of depression and has symptoms of delusions or hallucinations.⁶⁵

Dementia, most prevalent in people of old age, is a syndrome caused by brain disease in which the person experiences confused thought and behaviour.⁶⁶ Nearly half of all cases are caused by *Alzheimer's Disease*, in which brain tissue degenerates in a characteristic way.

Incidence refers to the number of instances of illness commencing, or of persons falling ill, during a given period in a specified population.⁶⁷

Intentional injury refers to any injury purposely inflicted either by oneself or by a second party. It includes self-mutilation and suicide and such criminal events as homicide, child abuse (to age 16 years), domestic violence, elder abuse, sexual assault and other forms of assault.

Ischaemic heart disease is coronary heart disease.

Levels of severity of disability and handicap

In the Survey of Disability, Ageing and Carers 1993, the ABS defined the levels of severity of disability and handicap as:

- *Profound*: always needing help from another person to perform one or more designated tasks.
- *Severe*: sometimes needing help to perform the designated tasks.
- *Moderate*: needing no help, but having difficulty performing one or more of the designated tasks.
- *Mild*: needing no help with, and having no difficulty with any of the tasks, but uses an aid to perform one or more of the designated tasks, or has difficulty walking 200 metres, or walking up and down stairs, or in using public transport, or picking up an object from

the floor.

- *Not determined*: having a schooling or employment limitation only, or who are aged less than five years, or whose only limitation was 'did not use the toilet'.

Median is a measure of central tendency. It refers to the point between the upper and lower halves of the set of measurements.⁶⁸

Mortality is the relative number of deaths, or death rate, as in a district or community.⁶⁹

Morbidity is the proportion of sickness in a locality.⁷⁰

Neoplasm is a diverse group of diseases characterised by the proliferation and spread of abnormal cells.⁷¹ They may be malignant or benign. Malignant neoplasms are called *cancers*.

Obsessive Compulsive Disorder is a major form of anxiety disorder. It involves constant unwanted thoughts and often results in performance of elaborate rituals in an attempt to control or banish the persistent thoughts. The rituals seriously interfere with everyday life.⁷²

Potential Years of Life Lost (PYLL) highlights the loss to society as a result of youthful or early deaths. The figure for PYLL due to a particular cause is the sum, over all persons dying from that cause, of the years that these persons would have lived had they experienced normal life expectation.⁷³

Post natal depression affects about half of all new mothers. The symptoms include feelings of mild depression, anxiety, tension, difficulty in sleeping, feeling unwell. It lasts for only a few hours or days in its mild form. Serious post natal depression, affecting about 10% of new mothers, results in increasing difficulty to cope with the demands of everyday life. Emotions range from anxiety, fear, sadness, panic, low self-esteem and feelings of inadequacy. Rejection of the baby may result.⁷⁴

Prevalence refers to the number of instances of a given disease or other condition in a given population at a designated time.⁷⁵

Schizophrenia is a psychotic disorder characterised by distortions of thinking, speech and perception, which is usually accompanied by inappropriate or "blunted" emotions.⁷⁶

Sex differentials are the differences in rates between males and females.⁷⁷

Standardised death rate is the overall death rate that would have prevailed in a standard population, in this case the 1991 Australian population, if it had experienced at each stage the death rates of the population being studied.⁷⁸

Statistically significant infers that it can be concluded on the basis of statistical analysis that it is highly probable.

Unintentional injury is any injury not purposely caused and includes such issues as motor accidents, falls, burns, sporting and occupational injuries and accidental poisonings.



8. ICD-9 Classifications

ICD-9 refers to the International Classification of Diseases, ninth revision, as developed by the World Health Organisation. It is a nationally and internationally accepted form of classification and is used in this publication. The following classifications refer to mental disorders and suicide.

MENTAL DISORDERS..... ICD 9 code 290-319

Psychoses..... ICD 9 code 290-299

 Organic psychotic conditions ICD 9 code 290-294

 Senile and Pre-senile organic psychotic conditions

 (dementia)..... ICD 9 code 290-291

 Other psychoses ICD 9 code 295-299

 Schizophrenia..... ICD 9 code 295

 Affective psychoses (includes manic, major
 depressive and bipolar disorders) ICD 9 code 296

Neurotic disorders, personality disorders

and other nonpsychotic mental disorders..... ICD 9 code 300-316

 Neurotic disorders (includes anxiety states)..... ICD 9 code 300

Mental retardation..... ICD 9 code 317-319

SUICIDE AND SELF-INFLICTED INJURY.....ICD 9 code E950-E959



9. Methodologies

9.1 Years of potential life lost

Estimates of years of potential life lost (YPLL) were calculated for deaths of persons aged 1 to 75 years based on the assumption that deaths occurring between ages 0 and 76 years are considered untimely.

$$YPLL = \sum_x (D_x (76 - A_x))$$

A_x = Adjusted age at death. As age at death is only available in completed years the midpoint of the reported age was chosen (eg. age at death 34 years was adjusted to 34.5)

D_x = Registered number of deaths at age x due to a particular cause of death

YPLL was standardised for age using the following formula:

$$YPLL_s = \sum_x (D_x (76 - C_x))$$

where the correction factor C_x is defined for age x as:

$$C_x = \frac{N_{xs}}{N_s} \cdot \frac{1}{N_x} \cdot N$$

N = Number of persons aged 1-75 years in the 1993 population

N_x = Number of persons aged x years in the 1993 population

N_{xs} = Number of persons aged x years in the standard population

N_s = Number of persons aged 1-75 years in the standard population

The Australian population at 30 June 1991 was chosen as the standard population.

Estimates of YPLL by cause of death, as presented in Figure 15 indicate the number of years lost due to specific causes on the assumption that up to exact age 76 years the decedent would not have died from any other cause. YPLL therefore should not be used as a measure of gains in years of life expectancy should a cause of death be eliminated or reduced.

Reference: Australian Bureau of Statistics. *1993 Causes of Death Australia. Catalogue No. 3303.0.*

9.2 Rates

Rates per 100,000 are calculated as follows:

Rate = $N/P \cdot 100,000$ (where N = number of events and P = population at risk of experiencing the event).

9.3 Three year moving averages

The three year moving averages were calculated by taking the rate over three years.

$$\text{Rate } Y_2 = \frac{(N_1+N_2+N_3)}{(P_1+P_2+P_3)}$$

where N_i = number of events year i

where Y_i = year i

and P_i = population at risk year i

For end years the average of 2, rather than 3, years was taken.

9.4 Logistic regression analysis

The SPSS computer package was used to run a logistic regression model. The mathematical equation is given below. By entering variables, for instance, age, sex and country of birth in the model it adjusts for age and sex and then determines the odds of having mental disorders compared with other diseases, given the country of birth.

Logistic regression model

The mathematical equation for the logistic regression model is given by

$$\text{Prob } (y=j) = \frac{e^{x'\beta_j}}{[\sum_j e^{x'\beta_j}]}$$

where $j = 0,1,2,3,\dots,j$ and $j+1$ possible unordered outcomes can occur.

$$95\% \text{ C.I.} = \exp(\beta \pm 1.96 \times \text{S.E.})$$

$\text{Exp } (\beta)$ gives the odds ratio.

9.5 Significance testing.

Various statistical techniques have been used in order to test whether there are significance difference between two populations. Where there are significance differences the test statistic and the level of significance have been given.



10. Data Limitations

10.1 Overall data

- Generally, data sets contain small numbers of occurrences of particular events. The smaller the numbers, the more likely there is to have inexplicable fluctuations in results. One extra death may alter mortality and morbidity statistics dramatically in a small area like the ACT. Where changes in pattern from year to year are noted, time series and moving averages are utilised to ensure a more reliable analysis;
- There is no supplementary morbidity collection for diseases that can be treated outside the hospital system. For example by a GP, specialist, outpatient clinics or emergency. Therefore there is a heavy reliance on survey data;
- Relying on available survey data means that some information is updated only after a number of years. Disease profiles may not be static with an everchanging ACT population and important information may be lost during the period where data is not collected.

10.2 Mortality data

- There are inconsistencies in recording of cause of death (eg. a person may be recorded as dying from suicide rather than from the severe mental illness which caused the suicide);
- When looking at disease-specific rates over time it was not possible to age and sex standardise for some prior years. Therefore, crude rates were used and extrapolated to 1994 findings.

10.3 Hospital separations data

- There are inconsistencies in coding hospital admissions (eg. a person may be coded as attempting suicide as the principal diagnosis, but that condition could have been caused by mental illness - a different coder may have coded principal diagnosis as "mental illness" with the suicide attempt as the secondary diagnosis);
- Hospital separations data only focus on acute or chronic conditions which require patients to be admitted to hospital;
- As there is quite a high proportion of non-ACT residents ($\approx 18\%$) separated from ACT hospitals and vice-versa it is difficult to look at hospital separations rates, as we cannot use the ACT population to calculate rates.
- Inpatients and re-admission cannot only be identified within a hospital, not between hospitals.
- ACT hospital data includes newborns in its separations data.

10.4 National Health Surveys

The Australian Bureau of Statistics (ABS) conducts a five yearly National Health Survey which collects data from approximately 54,000 people living throughout Australia. It is designed to obtain national benchmark information on a range of health-related issues and to enable the monitoring of trends in health, over time. The sample is designed so that the states and territories can be separately analysed. However:

- Until the 1995-96 survey, the sample size of respondents was very small in the ACT. This resulted in fluctuations in results and reduced reliability of findings.
- When responses were broken down into sub-groups (eg people aged under 18), the sample became even smaller resulting in more inaccuracies.
- It should be noted that the Survey utilises a self-reporting format. Results represent respondents' perceptions, not necessarily health professionals' findings. It also depends in part, on the literacy of the respondents and their ability to understand English.

The most recent Survey was conducted in the twelve months from January 1995 to January 1996. Preliminary results were released in late December 1996.

Some 2,156 dwellings (or one in fifty dwellings) in the ACT were surveyed. This is an increase on the previous Survey (1989-90) and will allow for more relevant analysis. It should be noted however, that some sections of the survey were only administered to half of the sample. This includes sections on women's health, alcohol consumption and general health and well-being.

10.5 Survey of Disability, Ageing and Carers 1993

The ABS conducts regular surveys which give a reasonably sound basis for analysis, although the size of the ACT sub-sample has been smaller than would be desired. They conducted a Survey of Handicapped Persons in 1981, followed by a Survey of Disabled and Aged Persons in 1988 which had comparable questions to the 1981 survey. The most recent survey, titled the Survey of Disability, Ageing and Carers was conducted in 1993. It contained a larger sample of ACT respondents from previous samples, on which to base analysis (3,777 people). The surveys are based on self-reported answers to questionnaires. It should therefore be noted that the results represent respondents' perceptions, not necessarily health professionals' findings. They also depend in part, on the literacy of the respondents and their ability to understand English. This may be particularly relevant to people with intellectual disabilities.

Tables used in this publication use 'rounded' numbers, so totals may not necessarily be accurate. There are also many asterisks highlighting the fact that numbers are so small as to result in high sampling variation or high relative standard error. Survey results should therefore be treated with caution.



11. REFERENCES

- ¹ Department of Human Services and Health, *Better Health Outcomes for Australians*, AGPS, Canberra, 1994.
- ² Dept. Human Services & Health, *First National Mental Health Report 1993*, AGPS, Canberra, 1994
- ³ *Mental Health Discussion paper*, presented to the AHMAC, AGPS, Canberra, October, 1989
- ⁴ ABS, *Disability, Ageing and Carers, Australia, 1993*, Cat No. 4430.0, 1994
- ⁵ Gilbert C, *Disability and Ageing in the ACT: An Epidemiological Review*, Health Series No. 10, Epidemiology Unit, ACT Dept of Health & Community Care, 1997
- ⁶ Australian Institute of Health and Welfare. *Australia's Health 1996: the fifth biennial report of the Australian Institute of Health and Welfare*. 1996.
- ⁷ Department of Health & Family Services, *National Mental Health Report 1995*, AGPS, Canberra, 1996
- ⁸ Department of Human Services and Health, *National Mental Health Report 1994*, AGPS, Canberra, 1995
- ⁹ NR&MRC, Monograph Series No. 1, *Women and Mental Health, Report of the Healthcare Committee Expert Advisory Panel on Mental Health & Women*, AGPS, Canberra, AGPS, 1991
- ¹⁰ Tippet V, Elvy G, Hardy J, Raphael B. *Mental Health In Australia: A review of current activities and future directions*. Department of Human Services and Health, 1994.
- ¹¹ Gannon D, Gordon C, Egloff B, Shadbolt B, *Health Related Quality of Life in the ACT: 1994-95*, Health Series No. 9, Epidemiology Unit, ACT Dept of Health & Community Care, Canberra, February 1997
- ¹² Henderson AS, Jorm AF, Mackinnon A, Christensen H, Scott LR, Korten AE, Doyle C, *The prevalence of depressive disorders & the distribution of depressive symptoms in later life: a survey using Draft ICD-10 & DSM-III-R*, Psychol Med, 23: 719-729, 1993
- ¹³ Perceptions: Newsletter of the National Mental Health Strategy. April 1996, issue 2.
- ¹⁴ op cit, no.7
- ¹⁵ Payne J N, Coy J, Patterson S, Milner PC. *Is use of hospital services a proxy for morbidity? A small area comparison of the prevalence of arthritis, depression, dyspepsia, obesity and respiratory disease with inpatient admissions rates for these disorders in England*. Journal of Epidemiology & Community Health 1994; 48:74-78.
- ¹⁶ The Department of Human Services and Health. *Mental Health in Australia*. Commonwealth of Australia, 1994.
- ¹⁷ ibid
- ¹⁸ Gilbert C, White C, *ACT's Health: A Report on the Health Status of ACT Residents*, Epidemiology Unit, ACT Dept of Health & Community Care, Act 1995
- ¹⁹ Anderson P, Bhatia K & Cunningham J, *Occasional Paper: Mortality of Indigenous Australians*. Commonwealth of Australia. ABS catalogue No. 3315.0. 1994
- ²⁰ Mental Health Branch, Commonwealth Department of Health and Family Services. *National Mental Health Reports 1993-1995*.
- ²¹ Beautrais AL, Joyce PR, Mulder RT et al. *Prevalence and comorbidity of mental disorders in persons making serious suicide attempts: a case-control study*. British Journal of Psychiatry. 165(5):658-63, 1994.
- ²² Henriksson M, Aro HM, Marttunen MJ et al. *Mental disorders and comorbidity in suicide*. American Journal of Psychiatry. 150(6):935-40, 1993.
- ²³ ABS, *Causes of Death*, 1995. ABS Catalogue No. 3303.0
- ²⁴ Anderson P, Bhatia K & Cunningham J, *Occasional Paper: Mortality of Indigenous Australians*. Commonwealth of Australia. ABS catalogue No. 3315.0. 1994
- ²⁵ ibid
- ²⁶ Gilbert, C, Gordon, C, *The Epidemiology of Injury in the ACT*, ACT Dept of Health and Community Care, 1996
- ²⁷ op cit no. 1
- ²⁸ Davis A G and George J E G. *States of Health: Health and Illness in Australia, 2nd edition*, Harper Educational Publishers, Sydney, 1993
- ²⁹ *Health for Young People in the Australian Capital Territory: ACT Youth Health Policy:1997-2000*. ACT Department of Health and Community Care,1997

-
- ³⁰ Sibthorpe B, Drinkwater J, Gardner K and Bamer G. *Drug use, binge drinking and attempted suicide among homeless and potentially homeless youth*. Australian New Zealand Journal of Psychiatry, 1995, 29(2):248-256
- ³¹ Anderson P, Bhatia K & Cunningham J, *Occasional Paper: Mortality of Indigenous Australians*. Commonwealth of Australia. ABS catalogue No. 3315.0. 1994
- ³² *ibid*
- ³³ *Scope for prevention in Mental Health*. National Health and Medical Research Council, 1993.
- ³⁴ Newman DL, Moffitt TE, Caspi A, Magdol L, Silva PA, Stanton WR. *Psychiatric disorder in a birth cohort of young adults: prevalence, comorbidity, clinical significance, and new case incidence from ages 11 to 21*. Journal of Consulting & Clinical Psychology. Vol 64;3:552-62, 1996 June.
- ³⁵ *Scope for prevention in Mental Health*. National Health and Medical Research Council, 1993.
- ³⁶ Angold A and Costello E.J. *Developmental Epidemiology*. Epi. Reviews. Vol 17;1:74-82.
- ³⁷ *Scope for prevention in Mental Health*. National Health and Medical Research Council, 1993.
- ³⁸ *op cit* no. 36
- ³⁹ *op cit* no. 36
- ⁴⁰ The Dept of Human Services and Health. *Mental Health in Australia*. Commonwealth of Australia, 1994.
- ⁴¹ ABS, *Causes of Death*, 1995. ABS Catalogue No. 3303.0
- ⁴² Henderson AS, et al. *A survey of dementia in the Canberra population: experience with ICD-10 and DSM-III-R*. Psychological medicine, 24; 473-482, 1994.
- ⁴³ Brockington IF, Cox-Roper A. The nosology of puerperal mental illness. *Motherhood and Mental Illness 2*. London, 1988:1-16.
- ⁴⁴ Hannah P, Adams D, Lee A, Glover V, Sandler M. *Links between early post-partum mood and post-natal depression*. British Journal of Psychiatry. 1992; 160:777-780.
- ⁴⁵ Romito P. *Unhappiness after childbirth*. Effective care in Pregnancy & Childbirth, 1989;1433-1446
- ⁴⁶ O'Hara MW. *Postpartum Depression. Causes and Consequences*. 1995.
- ⁴⁷ NHMRC, *Women and Mental Health. Monograph Series 1*. AGPS, published 1991
- ⁴⁸ Kendall RE, Chalmers JC, Platz C. *Emotional and Physical factors in the genesis of puerperal psychoses*. British Journal of Psychiatry 1987; 150:662-673.
- ⁴⁹ *op cit* no. 47
- ⁵⁰ Kendler KS, Heath AC, Neale MC, Kessler RC, Eaves LJ, *Alcoholism & major depression in women, A twin study of the causes of comorbidity*, Archives of General Psychiatry, 50(9): 690-8, Sept, 1993
- ⁵¹ Cornelius JR et al, West. Psych. Instit. & Clinic, Pittsburg, *Disproportionate suicidality in patients with comorbid major depression & alcoholism*, Amer J Psychiatry, 152(3): 358-64, Mar, 1995
- ⁵² Evans K, Sullivan JM, *Dual Diagnosis: Counselling the mentally ill substance abuser*, Guilford Press, NY, 1990
- ⁵³ Cuffel BJ, *Comorbid substance use disorder: prevalence, patterns of use, and course*, New Directions for Mental Health Services, No 70, Summer 1996
- ⁵⁴ *ibid*
- ⁵⁵ The National forum of Services for Survivors of Torture and Trauma. *The First National Report: A National Response to People who Arrive in Australia Having Experiences Torture and Trauma*.
- ⁵⁶ Craze L, Plant D, *Enhancing Mental Health Care Through General Practice*, ACT Division of General Practice, 1996
- ⁵⁷ ACT Division of General Practice, *Better Coordination Better Continuity: Strengthening the Role of the General Practitioner in Postnatal Depression Services in the ACT*. January 1996.
- ⁵⁸ Australian Bureau of Statistics definitions.
- ⁵⁹ Australian Bureau of Statistics definitions.
- ⁶⁰ Glover J, Woollacott T, *A Social Health Atlas*. ABS Catalogue No. 4385.0, 1992.
- ⁶¹ National Mental Health Strategy pamphlets, *What is anxiety?*, *What is Depression?*, *What is bipolar disorder?*, Commonwealth Dept of Human Services & Health, 1996
- ⁶² *ibid*
- ⁶³ *ibid*
- ⁶⁴ Australian Bureau of Statistics definitions.
- ⁶⁵ Christie M, *Common neurotic disorders, (unpublished)*, PRS, MHS, ACT Dept of H & C
- ⁶⁶ Sumich H, Hunt C, Andrews G, (*Clinical Research Unit for Anxiety Disorders*) - produced for the *Mental Health Workbook Project*, 1994
-

⁶⁷ Last J, *A Dictionary of Epidemiology*, IEA, 1988

⁶⁸ *ibid*

⁶⁹ Delbridge A, Bernard JRL, *The Macquarie Concise Dictionary*, 2nd Edition, 1988

⁷⁰ *ibid*

⁷¹ *ibid*

⁷² National Mental Health Strategy pamphlets, *What is anxiety?*, *What is Depression?*, *What is bipolar disorder?*, Commonwealth Dept of Human Services & Health, 1996

⁷³ op cit no. 67

⁷⁴ op cit no. 72

⁷⁵ op cit no. 67

⁷⁶ Sumich H, Hunt C, Andrews G, (*Clinical Research Unit for Anxiety Disorders*) - produced for the *Mental Health Workbook Project*, 1994

⁷⁷ op cit no. 67

⁷⁸ Australian Bureau of Statistics definitions.



1. 12. Health Series Publications

The Epidemiology Unit of the Department of Health and Community Care has developed an on-going health series of publications to inform health professionals, policy developers and the community on health status in the Territory.

- 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, George Johansen, May 1997

