

7 Admitted patient mental health-related care

7.1 Introduction

Mental health-related *separations* can be classified as ambulatory or non-ambulatory. In this chapter, information on non-ambulatory *admitted patient* mental health-related care is presented. The data are from the National Hospital Morbidity Database (NHMD), which is a collation of data on admitted patient care in Australian hospitals (see Appendix 1 for more information on the database). The statistical unit for the NHMD is the separation (see Key concepts). Data are not available on the number of separations accrued by an individual, so all the tabulations in this chapter are in terms of separation events, not patients. Ambulatory-equivalent admitted patient care is presented in Chapter 5.

Admitted patient *mental health-related* separations can be divided into those that involved *specialised psychiatric care* (which are presented in Section 7.3 of this chapter) and those that did not (Section 7.4). Section 7.5 provides an overview on separations that were not considered to be mental health-related but for which a mental health-related additional diagnosis was reported.

Key concepts

Separation refers to the episode of admitted patient care, which can be a total hospital stay (from admission to discharge, transfer or death) or a portion of a hospital stay beginning or ending in a change of type of care (for example, from acute to rehabilitation). Separation also means the process by which an admitted patient completes an episode of care by being discharged, dying, transferring to another hospital or changing type of care. Separation data provide information on the number of hospital stays completed in a designated period, typically a financial year. These data can be used as a measure of hospital activity, but can represent quite different types of activity. That is, some separations will occur after same-day stays in hospital, some for stays of a few days, while others can be for stays of months or, rarely, years. Thus, the separation data do not allow accurate comparison of hospitals that tend to provide for longer stays and report fewer separations (for example, public psychiatric hospitals) with hospitals that concentrate on providing numerous short stays (for example, acute care hospitals).

An **admitted patient** is a patient who undergoes a hospital's formal admission process, and completes an episode of care and 'separates' from the hospital.

A separation is classified as **mental health-related** for the purposes of this report if:

- it had a mental health-related principal diagnosis, which, for admitted patient care in this report, is defined as a principal diagnosis that is either a diagnosis that falls within the chapter on *Mental and behavioural disorders* (Chapter 5) in the *International Statistical Classification of Diseases and Related Health Problems, 10th revision, Australian Modification* (codes F00–F99) or a number of other selected diagnoses (see Appendix 4 for a full list of applicable diagnoses) and/or
- it included any specialised psychiatric care.

(continued)

A separation is classified as having **specialised psychiatric care** if the patient was reported as having one or more days in a specialised psychiatric unit or ward.

Patient day means the occupancy of a hospital bed (or chair in the case of some same-day patients) by an admitted patient for all or part of a day. The patient day (and psychiatric care day) data measure hospital activity in a way that is not as affected by variation in length of stay, as short-stay activity is represented in the same way as long-stay activity. The patient day data presented in this report include days within hospital stays that occurred before 1 July 2006 provided that the separation from hospital occurred during 2006–07. This has little or no impact in private and public acute hospitals, where separations are relatively brief, throughput is relatively high, and the patient days that occurred in the previous year are expected to be approximately balanced by the patient days not included in the counts because they are associated with patients yet to separate from the hospital and therefore yet to be reported. However, some public psychiatric hospitals provide very long stays for small numbers of patients and, as a result, would have comparatively large numbers of patient days recorded that occurred before 2006–07 and that may not be balanced by patient days associated with patients yet to separate from the hospital.

Psychiatric care days are the number of days or part-days the person received care as an admitted patient in a designated psychiatric unit or ward.

Average length of stay is the average number of patient days for admitted patient separations.

7.2 Change over time, 2002–03 to 2006–07

Table 7.1 provides a summary of admitted patient mental health-related separations both with and without specialised psychiatric care, as well as the *patient days*, *psychiatric care days* and *average length of stay* data related to those separations by hospital type from 2002–03 to 2006–07. It should be noted that the scope of the data collection and the actual definitions used by the data providers may vary from year to year, so comparisons between reporting years and hospital types should be made with caution.

As mentioned in Chapter 5, a total of 7,602,917 separations were reported from public and private acute and psychiatric hospitals in 2006–07. Approximately 4.3% (329,958) of these separations were mental health-related, comprising both ambulatory-equivalent and non-ambulatory-equivalent admitted patient separations.

A total of 209,356 non-ambulatory-equivalent admitted patient mental health-related care separations were reported in 2006–07, accounting for 2.8% of all hospital separations and 63.4% (209,356 out of 329,958) of mental health-related separations. Of these, 122,132 (58.3% of 209,356) were separations with specialised psychiatric care.

Over the 5 years to 2006–07, the average annual rate of increase for all mental health-related separations was 2.2%. The proportions of separations with specialised care remained fairly constant at approximately 58–59%. Public acute hospitals reported average annual increases in all separations. Private hospitals reported a decline in separations without specialised care of 3.3%, but an increase of 3.6% for those with specialised care.

Table 7.1: Admitted patient mental health-related separations^(a) with and without specialised psychiatric care, 2002–03 to 2006–07

	2002–03	2003–04	2004–05	2005–06	2006–07	Average annual change (per cent)
Separations						
Separations with specialised psychiatric care						
Public acute hospitals	73,972	76,042	76,172	76,019	79,738	1.9
Public psychiatric hospitals ^(b)	13,371	14,188	12,887	13,255	12,771	–1.1
Private hospitals	25,702	26,495	27,793	29,459	29,623	3.6
<i>Subtotal</i>	<i>113,045</i>	<i>116,725</i>	<i>116,852</i>	<i>118,733</i>	<i>122,132</i>	<i>2.0</i>
Mental health-related separations without specialised psychiatric care						
Public acute hospitals	66,607	68,087	70,975	75,195	76,553	3.5
Public psychiatric hospitals ^{(b)(c)}	1,055	1,048	1,136	770	660	–11.1
Private hospitals	11,462	11,852	10,390	9,488	10,011	–3.3
<i>Subtotal</i>	<i>79,124</i>	<i>80,987</i>	<i>82,501</i>	<i>85,453</i>	<i>87,224</i>	<i>2.5</i>
Total mental health-related separations						
Public acute hospitals	140,579	144,129	147,147	151,214	156,291	2.7
Public psychiatric hospitals ^(b)	14,426	15,236	14,023	14,025	13,431	–1.8
Private hospitals	37,164	38,347	38,183	38,947	39,634	1.6
Total	192,169	197,712	199,353	204,186	209,356	2.2
Patient days						
Patient days for separations with specialised psychiatric care^(c)						
Public acute hospitals	1,078,122	1,118,512	1,208,422	1,215,274	1,329,835	5.4
Public psychiatric hospitals ^(b)	885,541	666,275	757,916	652,375	636,857	–7.9
Private hospitals	420,496	424,787	441,617	456,146	492,777	4.0
<i>Subtotal</i>	<i>2,384,159</i>	<i>2,209,574</i>	<i>2,407,955</i>	<i>2,323,795</i>	<i>2,459,469</i>	<i>0.8</i>
Patient days for mental health-related separations without specialised psychiatric care						
Public acute hospitals	427,315	399,342	384,160	419,669	411,417	–0.9
Public psychiatric hospitals ^{(b)(c)}	9,758	8,341	19,753	5,547	4,262	–18.7
Private hospitals	125,438	120,186	96,120	93,266	106,457	–4.0
<i>Subtotal</i>	<i>562,511</i>	<i>527,869</i>	<i>500,033</i>	<i>518,482</i>	<i>522,136</i>	<i>–1.8</i>
Total mental health-related patient days						
Public acute hospitals	1,505,437	1,517,854	1,592,582	1,634,943	1,741,252	3.7
Public psychiatric hospitals ^(b)	895,299	674,616	777,669	657,922	641,119	–8.0
Private hospitals	545,934	544,973	537,737	549,412	599,234	2.4
Total	2,946,670	2,737,443	2,907,988	2,842,277	2,981,605	0.3
Psychiatric care days						
Public acute hospitals	1,061,681	1,099,446	1,183,862	1,190,652	1,307,383	5.3
Public psychiatric hospitals ^(b)	866,761	663,541	753,328	644,104	627,233	–7.8
Private hospitals	417,560	423,507	440,663	454,719	490,697	4.1
Total	2,346,002	2,186,494	2,377,853	2,289,475	2,425,313	0.8

(continued)

Table 7.1 (continued): Admitted patient mental health-related separations^(a) with and without specialised psychiatric care, 2002–03 to 2006–07

	2002–03	2003–04	2004–05	2005–06	2006–07	Average annual change (per cent)
Average length of stay						
Separations with specialised psychiatric care						
Public acute hospitals	14.6	14.7	15.9	16.0	16.7	3.4
Public psychiatric hospitals ^(b)	66.2	47.0	58.8	49.2	49.9	–6.8
Private hospitals	16.4	16.0	15.9	15.5	16.6	0.4
<i>Subtotal</i>	<i>21.1</i>	<i>18.9</i>	<i>20.6</i>	<i>19.6</i>	<i>20.1</i>	<i>–1.1</i>
Mental health-related separations without specialised psychiatric care						
Public acute hospitals	6.4	5.9	5.4	5.6	5.4	–4.3
Public psychiatric hospitals ^{(b)(c)}	9.2	8.0	17.4	7.2	6.5	–8.6
Private hospitals	10.9	10.1	9.3	9.8	10.6	–0.7
<i>Subtotal</i>	<i>7.1</i>	<i>6.5</i>	<i>6.1</i>	<i>6.1</i>	<i>6.0</i>	<i>–4.2</i>
Total mental health-related separations						
Public acute hospitals	10.7	10.5	10.8	10.8	11.1	1.0
Public psychiatric hospitals ^(b)	62.1	44.3	55.5	46.9	47.7	–6.4
Private hospitals	14.7	14.2	14.1	14.1	15.1	0.7
Total	15.3	13.8	14.6	13.9	14.2	–1.8

(a) Separations for which care type was reported as *Newborn* with no qualified days, and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded.

(b) Mental health-related separations without specialised psychiatric care reported by public psychiatric hospitals relate to the provision of alcohol and drug treatment in New South Wales public psychiatric hospitals.

(c) These data indicate the number of patient days for separations with at least some specialised psychiatric care. This figure will not necessarily be equivalent to a count of psychiatric care days, as some separations will include days of specialised psychiatric care and days of other care.

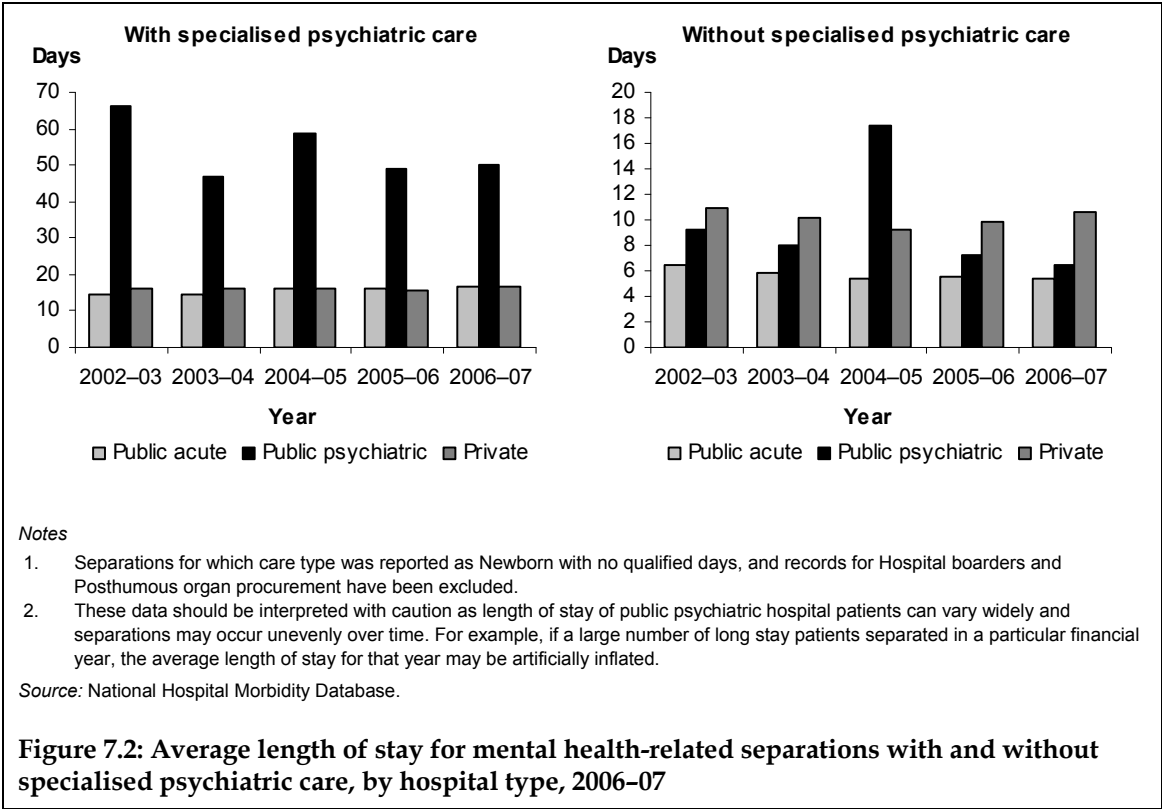
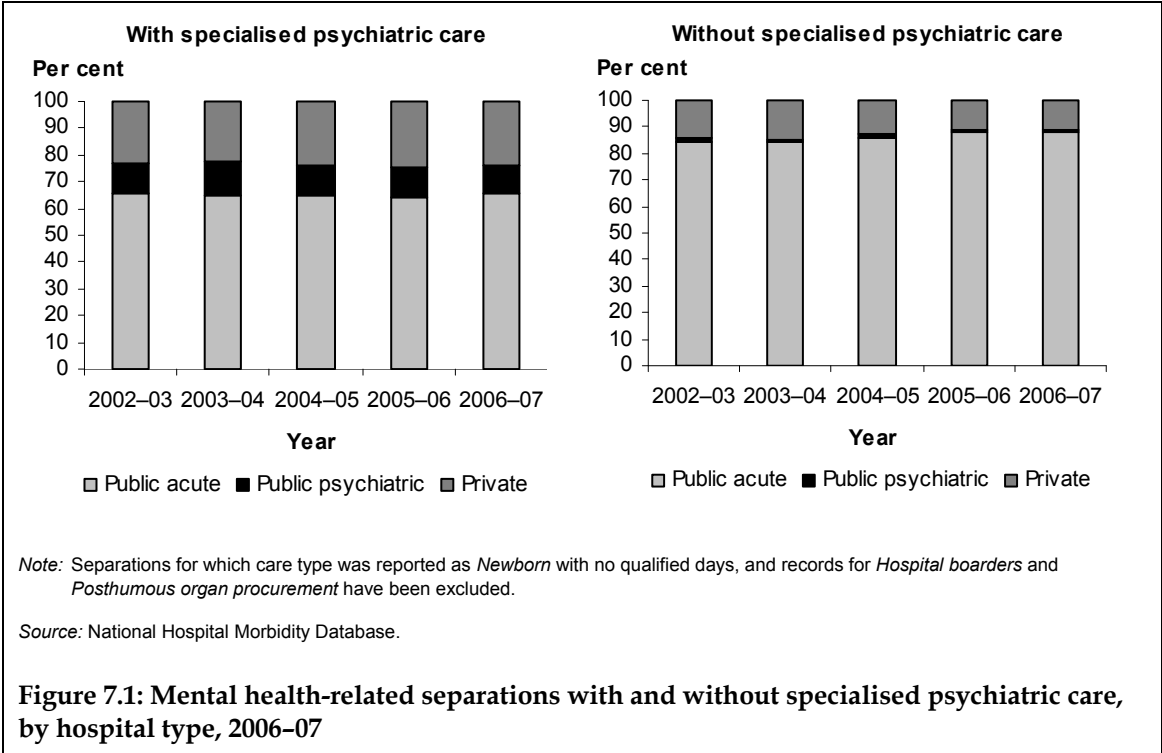
Source: National Hospital Morbidity Database.

Figure 7.1 shows the percentage of separations with and without specialised psychiatric care by hospital type. For separations with specialised psychiatric care, public acute hospitals maintained their dominance as providers (over 60%) of admitted patient services over the 5 years to 2006–07. In 2006–07, there was a slight increase (1.3%) in the overall percentage of public acute hospital separations and a corresponding reduction in private hospital (0.5%) and public psychiatric hospital (0.7%) separations. The dominance of public acute hospitals was even more pronounced (over 80%) in mental health-related separations without specialised psychiatric care. This is partly explained by the smaller role of public psychiatric hospitals in providing non-specialised psychiatric care, although private hospitals also played a lesser role in this type of care. In general, the proportion of separations reported by each hospital type remained fairly constant over the 5 years.

Figure 7.2 shows the average length of stay for separations with and without specialised psychiatric care by hospital type. As outlined in the Key concepts, public psychiatric hospitals tend to provide for longer stays and report fewer separations, which explains the noticeably higher average length of stay for separations with specialised psychiatric care.

A different picture is apparent for mental health-related separations without specialised psychiatric care. The average length of stay was noticeably higher for private hospital

separations compared to other hospital types across all years except in 2004–05 when there was a longer average length of stay for public psychiatric hospitals.



7.3 Specialised admitted patient mental health care

Specialised admitted patient mental health care refers to separations involving one or more days of specialised psychiatric care in a psychiatric unit or ward.

Of the 209,356 mental health-related separations for admitted patient care, 122,132 (58.3%) involved specialised psychiatric care (Table 7.1).

States and territories and hospital type

Table 7.2 shows the number of separations with specialised psychiatric care for each state and territory by hospital type. Confidentiality reasons prevent the publication of private hospital figures for Tasmania, the Australian Capital Territory and the Northern Territory, but the figures are included in the national totals. The number of separations and patient days per 1,000 population are provided to account for differences in population between jurisdictions. It should be noted that jurisdictional data differences may reflect differences in service delivery practices, admission practices and/or the types of establishments categorised as hospitals. Caution should be used in the interpretation and comparison of data between jurisdictions.

The data indicate that, of the five jurisdictions with fully reported figures, Queensland had the highest percentage of public acute hospitals separations (73.4%), while Western Australia had the lowest (59.5%). For private hospital separations, Victoria had the highest percentage (34.9%), which was more than twice that of South Australia (17.0%). Public psychiatric hospital separations constituted 10.5% (12,771 out of 122,132) of all separations with New South Wales being the major provider (65.4%). Public psychiatric hospital separations in Victoria and Queensland constituted less than 2% of the total number of separations in each jurisdiction.

The number of separations per 1,000 population, referred to as the separation rate in the following discussion, varied greatly in each jurisdiction. For public acute hospitals, Tasmania has the highest separation rate (6.0) which was 57.9% higher than the national average of 3.8. Public hospital separation rates were higher compared with other hospital types across all jurisdictions.

Queensland was the jurisdiction with the highest number of public acute hospital patient days (71.9) per 1,000 population. The number of public psychiatric hospital patient days per 1,000 population varied greatly from 9.2 days in Victoria to 50.2 days in Tasmania. South Australia reported the lowest number of patient days in private hospitals per 1,000 population (15.1).

All the separations reported by South Australia involved specialised psychiatric care (100.0%). The lowest percentage of psychiatric care days compared with the total number of patient days was reported by public acute hospitals in the Australian Capital Territory (94.9%).

Table 7.2: Admitted patient separations^(a) with specialised psychiatric care, states and territories, 2006–07

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Separations									
Public acute hospitals	23,433	17,537	19,100	7,137	7,496	2,868	1,183	984	79,738
Public psychiatric hospitals	8,354	326	404	1,427	1,752	508	..	..	12,771
Private hospitals	7,472	9,593	6,506	3,432	1,889	n.p.	n.p.	n.p.	29,623
Total	39,259	27,456	26,010	11,996	11,137	n.p.	n.p.	n.p.	122,132
Separations per 1,000 population^(b)									
Public acute hospitals	3.5	3.4	4.7	3.4	4.7	6.0	3.4	4.4	3.8
Public psychiatric hospitals	1.2	0.1	0.1	0.7	1.1	1.0	..	..	0.6
Private hospitals	1.1	1.8	1.6	1.6	1.2	n.p.	n.p.	n.p.	1.4
Total	5.8	5.3	6.3	5.8	7.0	n.p.	n.p.	n.p.	5.9
Patient days									
Public acute hospitals	393,489	335,719	293,494	140,295	112,363	27,219	15,930	11,326	1,329,835
Public psychiatric hospitals	311,696	47,449	122,069	51,904	77,028	26,711	..	..	636,857
Private hospitals	140,535	159,683	106,754	48,394	24,884	n.p.	n.p.	n.p.	492,777
Total	845,720	542,851	522,317	240,593	214,275	n.p.	n.p.	n.p.	2,459,469
Patient days per 1,000 population^(b)									
Public acute hospitals	57.5	64.2	71.9	68.2	68.8	56.1	46.4	52.9	63.7
Public psychiatric hospitals	45.5	9.2	29.7	25.0	49.2	50.2	..	..	30.6
Private hospitals	20.1	30.3	25.6	22.9	15.1	n.p.	n.p.	n.p.	23.2
Total	123.1	103.8	127.1	116.1	133.1	n.p.	n.p.	n.p.	117.4
Psychiatric care days									
Public acute hospitals	378,814	335,172	289,293	138,174	112,363	27,219	15,123	11,225	1,307,383
Public psychiatric hospitals	302,072	47,449	122,069	51,904	77,028	26,711	..	..	627,233
Private hospitals	139,010	159,552	106,734	48,002	24,884	n.p.	n.p.	n.p.	490,697
Total	819,896	542,173	518,096	238,080	214,275	n.p.	n.p.	n.p.	2,425,313

(a) Separations for which care type was reported as *Newborn* with no qualified days, and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded.

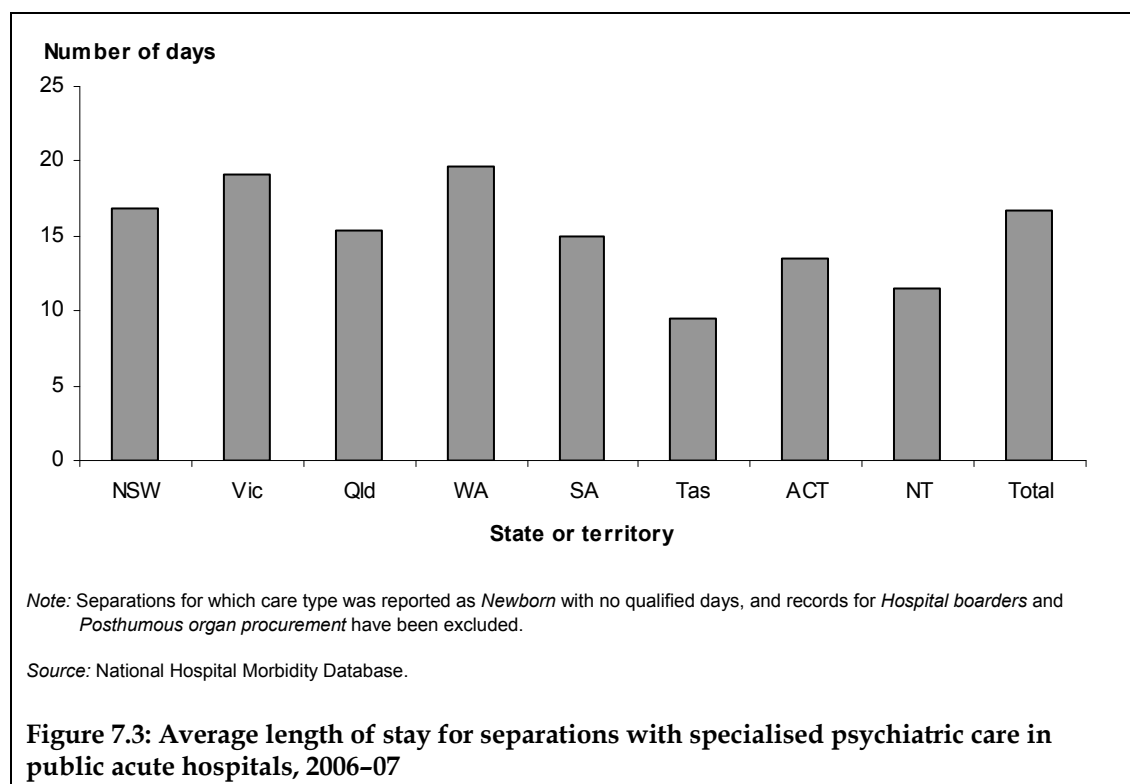
(b) Rates were directly age-standardised as detailed in Appendix 2.

n.p. Not published. Private hospital figures for Tasmania, the Australian Capital Territory and the Northern Territory are not published due to confidentiality reasons. However, the figures are included in the national totals.

.. Not applicable. The Australian Capital Territory and the Northern Territory do not have any public psychiatric hospitals.

Source: National Hospital Morbidity Database.

Figure 7.3 shows that the average length of stay in public acute hospitals was highest for Western Australia, which was more than twice the average length of stay for Tasmania. The average lengths of stay for New South Wales and Victoria were also higher than the national average (16.7 days).



Mental health legal status

Table 7.3 shows the number of separations with specialised psychiatric care by hospital type and the patient's mental health legal status. Voluntary separations comprised 57.8% of all separations. Public acute hospitals reported the highest number of involuntary separations (80.7%). The majority (66.6%) of private hospital separations were voluntary but there was a relatively high number of private hospital separations with no mental health legal status reported (9,797 or 33.1%). Public psychiatric hospitals have a higher proportion (61.6%) of separations with involuntary status compared with the other hospital types.

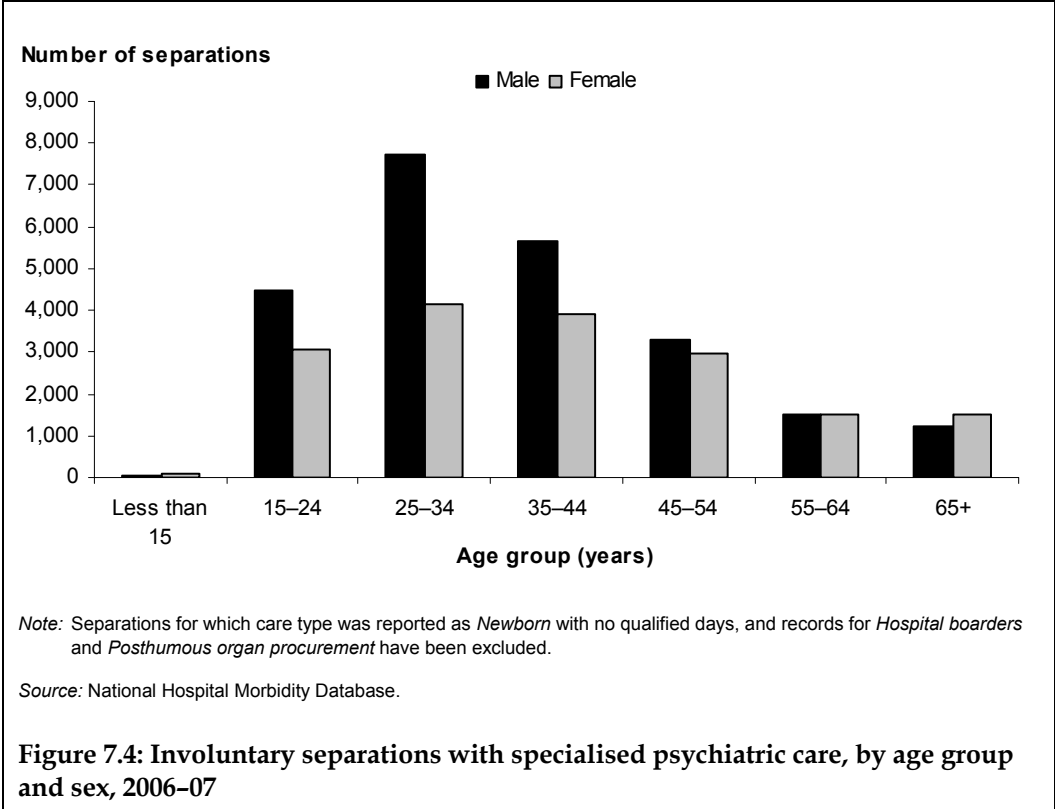
Table 7.3: Admitted patient separations^(a) with specialised psychiatric care, by mental health legal status and hospital type, 2006-07

Mental health legal status	Public acute hospitals	Public psychiatric hospitals	Private hospitals	Total
Involuntary	33,194	7,861	101	41,156
Voluntary	45,904	4,910	19,725	70,539
Not reported	640	0	9,797	10,437
Total	79,738	12,771	29,623	122,132

(a) Separations for which care type was reported as *Newborn* with no qualified days, and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded.

Source: National Hospital Morbidity Database.

Figure 7.4 shows the relationship between involuntary mental health legal status and demographic characteristics. A relatively high number of involuntary separations were for males aged 15–44 years. However, more than half of the involuntary separations for those aged less than 15 years were for females. These apparent sex differences were less pronounced in the older age groups.



Patient demographics

Table 7.4 provides a summary of the demographics of patients receiving specialised psychiatric care in 2006–07. In addition, a rate (per 1,000 population) is reported to adjust for relative population sizes and age structures. As these are reports of separations (rather than patients), the rates should not be interpreted as the number of patients with specific characteristics per 1,000 population. Instead, they provide information on the number of separations relative to the size of the population subgroup.

The highest proportion of separations was for patients aged 25–34 years and 35–44 years (22.6% and 21.9%, respectively). The 25–34 age group also had the highest number of separations per 1,000 population (9.5). The lowest proportion of separations was for patients aged less than 15 years (1.5%).

There was no major difference between male and female separations per 1,000 population (5.7 and 6.0, respectively), but there were differences in distributions of separations when age was taken into consideration (Figure 7.5). There were more female separations in all age groups apart from the 25–34 years age group. The biggest difference between the number of male and female separations was in the 65 years and over age group, followed by those aged 25–34 years. Separations were evenly distributed for those aged less than 15 years.

The rate of separation for Australian-born patients was noticeably higher than that of those born overseas (6.4 and 3.7, respectively). Those living in *Major cities* had nearly double the rate of separations of those in *Remote* areas (6.1 and 3.5, respectively).

More than half of the separations (52.1%) involved those who had never been married.

The data showed that the typical separation involved an Australian-born, non-Indigenous male aged 25–44 years who had never been married and lived in a major city.

Table 7.4: Admitted patient separations^(a) with specialised psychiatric care, by patient demographic characteristics, 2006–07

Patient demographics	Number of separations ^(b)	Per cent of separations ^(c)	Rate (per 1,000 population) ^(d)
Age (years)			
Less than 15	1,782	1.5	0.4
15–24	18,758	15.4	6.5
25–34	27,563	22.6	9.5
35–44	26,740	21.9	8.7
45–54	19,918	16.3	6.9
55–64	12,359	10.1	5.4
65+	15,011	12.3	5.5
Sex			
Male	58,656	48.0	5.7
Female	63,475	52.0	6.0
Indigenous status^(e)			
Indigenous Australians	4,904	4.2	11.3
Other Australians ^(f)	111,938	95.8	5.7
Country of birth			
Australia	95,641	81.2	6.4
Overseas	22,093	18.8	3.7
Area of usual residence			
Major cities	87,549	73.5	6.1
Inner regional	21,630	18.2	5.6
Outer regional	8,447	7.1	4.5
Remote	1,078	0.9	3.5
Very remote	461	0.4	2.6
Marital status			
Never married	59,789	52.1	..
Widowed	5,450	4.8	..
Divorced	9,408	8.2	..
Separated	6,066	5.3	..
Married	33,941	29.6	..
Total	122,132	100.0	5.9

(a) Separations for which care type was reported as *Newborn* with no qualified days, and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded.

(b) The number of separations for each demographic variable may not sum to the total due to missing and/or not reported data.

(c) The percentages shown do not include separations for which the demographic information was missing and/or not reported.

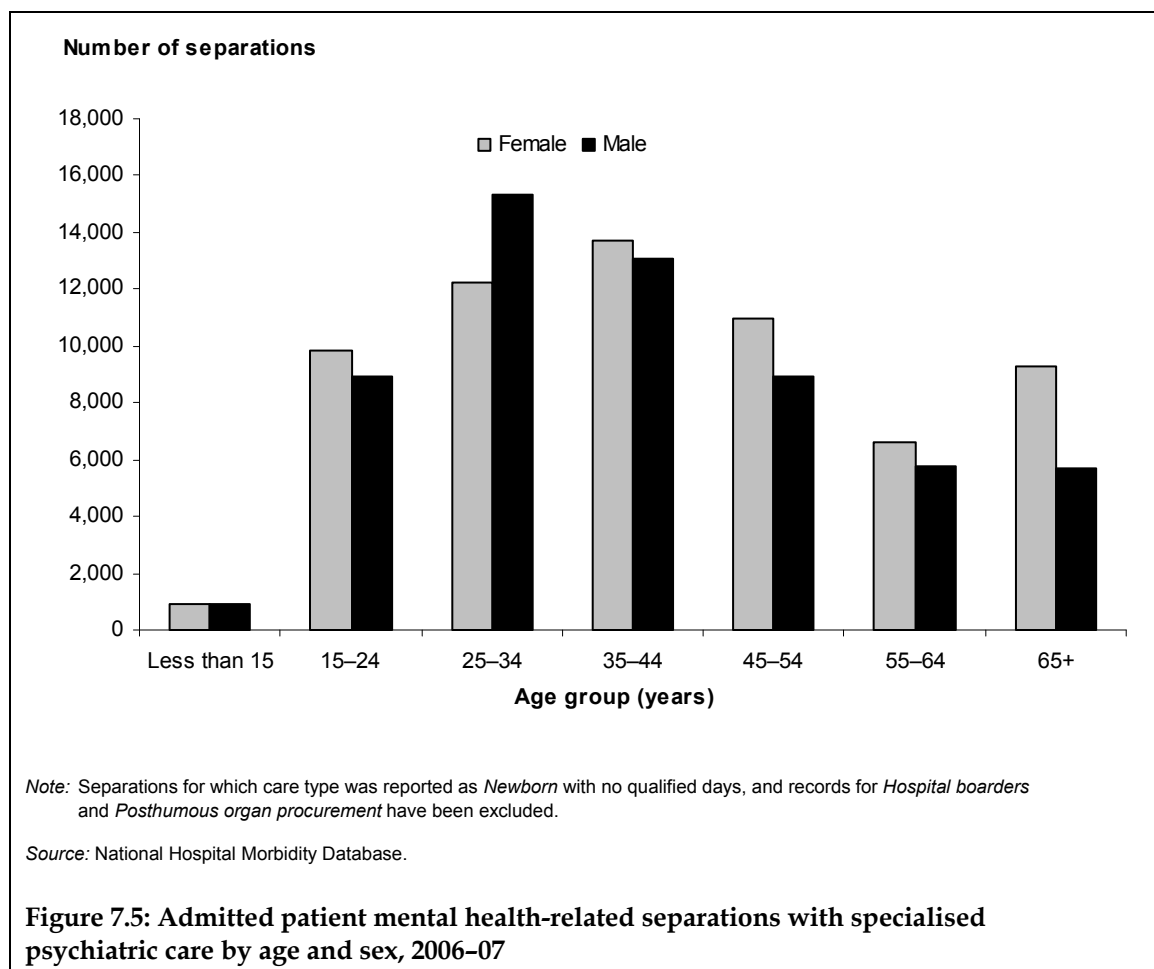
(d) Rates were directly age-standardised, with the exception of age which is a crude rate, as detailed in Appendix 2.

(e) Only Indigenous status data for New South Wales, Victoria, Queensland, Western Australia, South Australia and public hospitals in the Northern Territory have been included in this table as they are the only jurisdictions for which the data are considered to be of sufficient quality for analysis. However, caution should be used in the interpretation of these data due to jurisdictional data collection differences; the data does not necessarily represent the national trend (see AIHW 2005).

(f) Includes separations where Indigenous status was missing or not reported.

.. Not applicable.

Source: National Hospital Morbidity Database.



Principal diagnosis

Principal diagnosis refers to the diagnosis established after study to be chiefly responsible for the patient's episode of admitted patient care. Table 7.5 shows the distribution of separations with psychiatric care by principal diagnosis and hospital type. Diagnoses are classified according to the *International Statistical Classification of Diseases and Related Health Problems, 10th revision, Australian Modification (ICD-10-AM)*. Further information on this classification is included in Appendix 3.

In 2006-07, the principal diagnosis of *Schizophrenia (F20)* accounted for the largest number of separations (21,857 or 17.9%). It was the most commonly reported diagnosis for public acute and psychiatric hospitals. *Depressive episode (F32)* ranked second and was the most commonly reported diagnosis for private hospitals. In fact, depressive disorders (F32 and F33) constituted 44.0% of the total number of private hospital separations.

Figures 7.6 and 7.7 show the 10 most commonly reported principal diagnoses by age and sex. For separations involving those aged less than 15 years, *Reaction to severe stress and adjustment disorder (F43)* was the most commonly reported diagnosis. Other common diagnoses for the less than 15 years age group included *Conduct disorders (F91)* and *Depressive episode (F32)*.

Over 30% of separations with the principal diagnosis of *Mental and behavioural disorders due to other psychoactive substance use (F11-F19)* and *Specific personality disorders (F60)* were attributed to the 15-24 years age group. *Eating disorders (F50)* were also commonly reported by this age

group. The 25–34 years age group reported the highest proportion of separations for five of the 10 most commonly reported principal diagnoses. Of these, the highest proportion was for *Mental and behavioural disorders due to other psychoactive substance use* (F11–F19) with 38.9% of separations reported by this age group. The proportion of separations attributed to the 35–44 years age group ranged from 17.9% for *Recurrent depressive disorders* (F33) to 26.3% for *Mental and behavioural disorders due to use of alcohol* (F10). For the 45–54 years age group, there was a higher proportion of separations involving *Mental and behavioural disorders due to use of alcohol* (F10) compared with other commonly reported principal diagnoses. Apart from those aged 15 and under, the 55–64 years age group was least represented in separations for the 10 most commonly reported principal diagnoses. Depressive disorders (F32 and F33) were the most common principal diagnoses reported in separations involving those aged 65 years and over.

There were marked sex differences in the number of separations for the 10 most commonly reported diagnoses (Figure 7.7). For the most commonly reported diagnosis of *Schizophrenia* (F20), the number of male separations was more than twice that of female separations. The diagnoses of *Mental and behavioural disorders due to use of alcohol and other psychoactive substance use* (F10 and F11–F19) also displayed a similar pattern with noticeably more male separations than female separations. Female separations, though, were noticeably higher for the principal diagnoses of *Recurrent depressive disorders* (F33) and *Specific personality disorders* (F60).

Table 7.5: Admitted patient separations^(a) with specialised psychiatric care, by principal diagnosis in ICD-10-AM groupings and hospital type, 2006-07

Principal diagnosis	Public acute	Public psychiatric	Private	Total	Per cent
F00-F03	557	178	129	864	0.7
F04-F09	569	133	125	827	0.7
F10	1,980	621	2,346	4,947	4.1
F11-F19	3,606	981	959	5,546	4.5
F20	17,610	3,014	1,233	21,857	17.9
F21, F24, F28, F29	1,456	248	103	1,807	1.5
F22	776	130	95	1,001	0.8
F23	1,395	211	75	1,681	1.4
F25	5,359	1,021	1,296	7,676	6.3
F30	559	69	35	663	0.5
F31	7,935	1,089	3,334	12,358	10.1
F32	11,103	1,065	6,978	19,146	15.7
F33	3,701	314	6,067	10,082	8.3
F34	998	118	428	1,544	1.3
F38-F39	133	30	49	212	0.2
F40	54	6	87	147	0.1
F41	1,160	102	1,196	2,458	2.0
F42	226	24	243	493	0.4
F43	8,141	1,274	2,713	12,128	9.9
F44	116	8	246	370	0.3
F45, F48	81	8	42	131	0.1
F50	575	7	685	1,267	1.0
F51-F59	193	12	128	333	0.3
F60	3,744	531	513	4,788	3.9
F61-F69	163	33	50	246	0.2
F70-F79	156	44	2	202	0.2
F80-F89	175	31	22	228	0.2
F90	112	9	16	137	0.1
F91	298	32	3	333	0.3
F92-F98	190	58	10	258	0.2
F99	267	86	3	356	0.3
G30	497	85	59	641	0.5
	218	324	1	543	0.4
	235	36	23	294	0.2
	5,400	839	329	6,568	5.4
Total	79,738	12,771	29,623	122,132	100.0

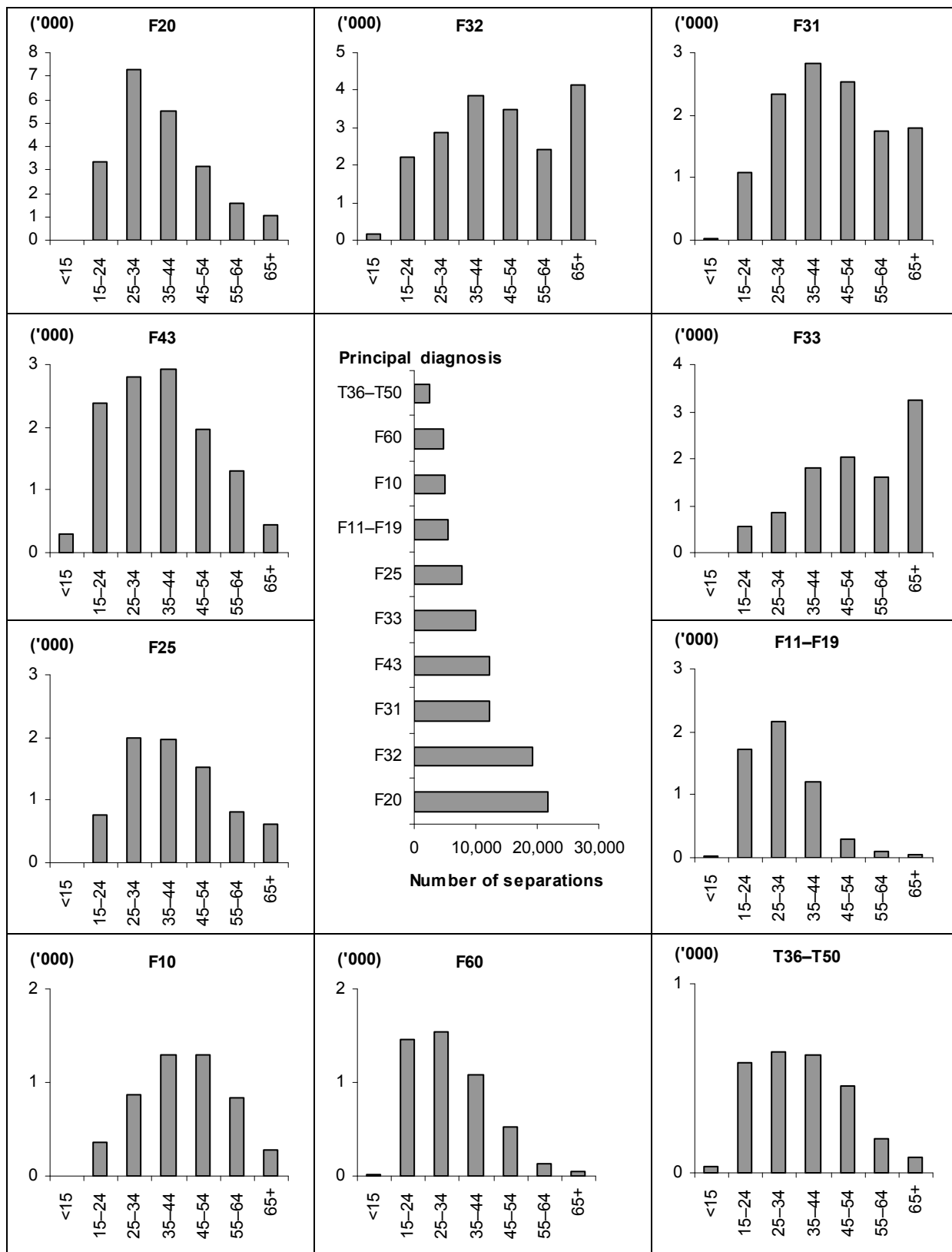
(a) Separations for which care type was reported as *Newborn* with no qualified days, and records for *Hospital boarders* and *Post/normous organ procurement* have been excluded.

(b) Includes ICD-10-AM codes Z00.4, Z03.2, Z04.6, Z09.3, Z13.3, Z54.3, Z63.1, Z63.8, Z63.9, Z65.8, Z65.9, Z71.4, Z71.5 and Z76.0.

(c) Includes separations for which the principal diagnosis was any other mental health-related principal diagnosis as listed in Appendix 4.

(d) Includes all other codes not included as a mental health principal diagnosis as listed in Appendix 4.

Source: National Hospital Morbidity Database.



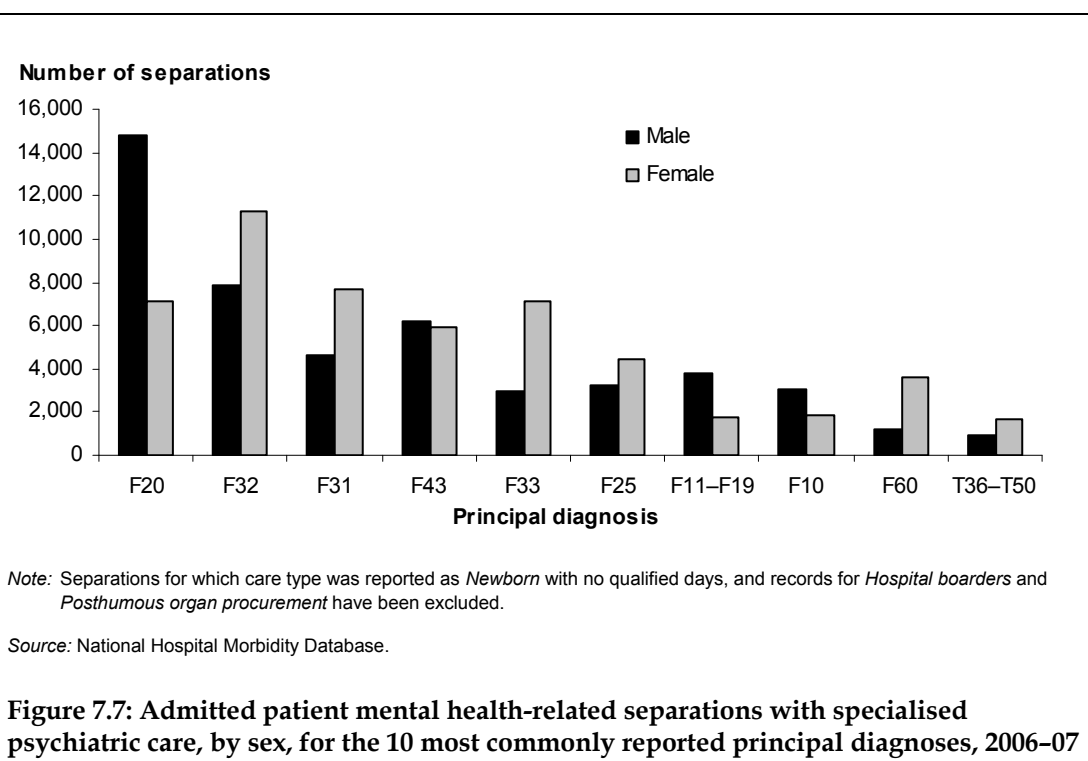
Note: Separations for which care type was reported as *Newborn* with no qualified days, and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded.

Source: National Hospital Morbidity Database.

Figure 7.6: Admitted patient mental health-related separations with specialised psychiatric care, by age group, for the 10 most commonly reported principal diagnoses, 2006-07

Key to the principal diagnosis codes in Figures 7.6 and 7.7

- F10 Mental and behavioural disorders due to use of alcohol
- F11–F19 Mental and behavioural disorders due to other psychoactive substance use
- F20 Schizophrenia
- F25 Schizoaffective disorders
- F31 Bipolar affective disorders
- F32 Depressive episode
- F33 Recurrent depressive disorders
- F43 Reaction to severe stress and adjustment disorders
- F60 Specific personality disorders
- T36–T50 Poisoning by drugs, medicaments and biological substances



Procedures

Table 7.6 details 10 procedures (or interventions) most frequently reported for separations with specialised psychiatric care. Procedures are classified according to the *Australian Classification of Health Interventions, 5th edition*. Further information on this classification is included in Appendix 3.

A total of 157,012 procedures were reported in relation to 65,155 separations. This reflects the fact that more than one procedure can be reported for each separation. No procedures were reported for 46.7% of the separations (56,977 out of 122,132). Non-emergency general anaesthesia (*General anaesthesia, American Society of Anaesthesiologists (ASA) 99*) was the most frequently reported procedure. This was most likely associated with the administration of electroconvulsive therapies (93340-02), a form of treatment for depression which was a commonly reported principal diagnosis. Allied health interventions from a number of different health disciplines also featured prominently in the 10 most frequently reported procedures.

Table 7.6: The 10 most frequently reported procedures for admitted patient separations^(a) with specialised psychiatric care, 2006–07

Procedure	Procedures ^(b)		Separations ^{(b)(c)}	
	Number	Per cent	Number	Per cent
92514–99 General anaesthesia, ASA 99	29,163	18.6	10,873	8.4
95550–01 Allied health intervention, social work	22,844	14.5	22,817	17.7
93340–02 Electroconvulsive therapy ≤12 treatments	14,793	9.4	14,646	11.3
95550–02 Allied health intervention, occupational therapy	14,349	9.1	14,330	11.1
95550–10 Allied health intervention, psychology	7,855	5.0	7,853	6.1
92514–29 General anaesthesia, ASA 29	5,426	3.5	2,163	1.7
56001–00 Computerised tomography of brain	5,111	3.3	5,087	3.9
95550–00 Allied health intervention, dietetics	4,295	2.7	4,290	3.3
96175–00 Mental/behavioural assessment	4,294	2.7	4,275	3.3
92514–39 General anaesthesia, ASA 39	4,255	2.7	1,418	1.1
Other reported procedures	44,627	28.4	41,370	32.0
Totals				
Number of separations with at least one procedure	..	..	65,155	53.3
Number of separations with no procedure reported	..	..	56,977	46.7
Total	157,012	100	122,132	100

(a) Separations for which care type was reported as *Newborn* with no qualified days, and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded.

(b) The number of procedures may not equal the number of separations, as the same procedure may have been performed more than once for each separation.

(c) The sum of the number of separations is not necessarily equivalent to the total, as multiple procedures can be reported for each separation.

.. Not applicable.

Source: National Hospital Morbidity Database.

7.4 Non-specialised admitted patient mental health care

This section presents information on mental health-related separations that did not involve any specialised psychiatric care (that is, the patient did not receive one or more days of care in a specialised psychiatric unit or ward). These separations are classified as mental health-related because the reported principal diagnosis for the separation is either one that falls within the *Mental and behavioural disorders* chapter (Chapter 5) in the ICD-10-AM classification (codes F00–F99) or is one of a number of other selected diagnoses (see Appendix 4).

There were 87,224 mental health-related separations without specialised psychiatric care, accounting for 41.7% of all mental health-related separations for admitted patient care.

States and territories and hospital type

Table 7.7 presents the number of separations and patient days for mental health-related separations without specialised psychiatric care for each state and territory. The number of separations and patient days per 1,000 population are also presented, to account for variations in the population size of each jurisdiction.

Table 7.7: Admitted patient separations^(a) and patient days for mental health-related separations without specialised psychiatric care, states and territories, 2006–07

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Separations									
Public acute hospitals	27,216	22,962	9,396	7,669	7,352	1,138	365	455	76,553
Public psychiatric hospitals ^(b)	660	0	0	0	0	0	..	..	660
Private hospitals	2,116	2,507	2,678	1,130	619	n.p.	n.p.	n.p.	10,011
Total	29,992	25,469	12,074	8,799	7,971	n.p.	n.p.	n.p.	87,224
Separations per 1,000 population^(c)									
Public acute hospitals	3.9	4.4	2.3	3.7	4.6	2.3	1.2	2.6	3.7
Public psychiatric hospitals ^(b)	0.1	0.0	0.0	0.0	0.0	0.0	..	..	0.0
Private hospitals	0.3	0.5	0.6	0.6	0.4	n.p.	n.p.	n.p.	0.5
Total	4.4	4.9	2.9	4.3	4.9	n.p.	n.p.	n.p.	4.2
Patient days									
Public acute hospitals	152,307	108,879	54,312	34,955	42,058	14,035	2,369	2,502	411,417
Public psychiatric hospitals ^(b)	4,262	0	0	0	0	0	..	..	4,262
Private hospitals	28,080	21,373	31,245	7,968	4,860	n.p.	n.p.	n.p.	106,457
Total	184,649	130,252	85,557	42,923	46,918	n.p.	n.p.	n.p.	522,136
Patient days per 1,000 population^(c)									
Public acute hospitals	21.5	20.4	13.2	17.1	24.8	26.9	8.2	21.2	19.3
Public psychiatric hospitals ^(b)	0.6	0.0	0.0	0.0	0.0	0.0	..	..	0.2
Private hospitals	4.0	4.1	7.5	4.0	2.7	n.p.	n.p.	n.p.	5.0
Total	26.2	24.4	20.8	21.1	27.6	n.p.	n.p.	n.p.	24.5

(a) Separations for which care type was reported as *Newborn* with no qualified days, and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded.

(b) Mental health-related separations without specialised psychiatric care reported by New South Wales public psychiatric hospitals were mainly for alcohol and drug treatment episodes.

(c) Rates were directly age-standardised as detailed in Appendix 2.

n.p. Not published. Private hospital figures for Tasmania, the Australian Capital Territory and the Northern Territory are not published due to confidentiality reasons. However, the figures are included in the national totals.

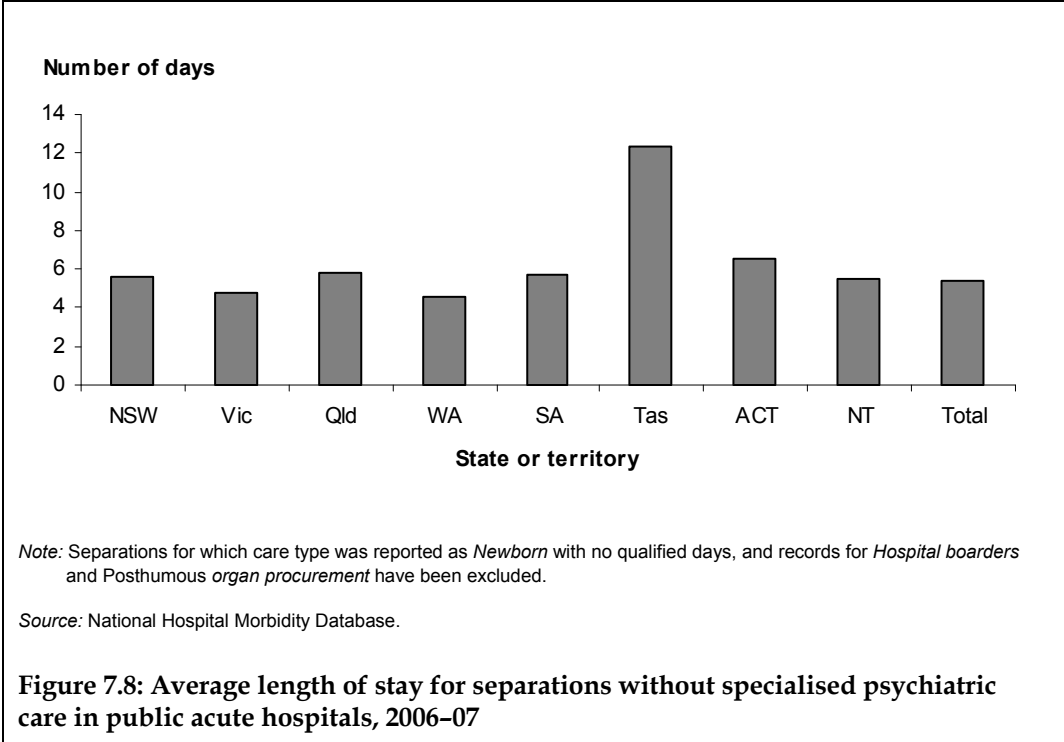
.. Not applicable. The Australian Capital Territory and the Northern Territory do not have any public psychiatric hospitals.

Source: National Hospital Morbidity Database.

Mental health-related separations without specialised psychiatric care were predominantly provided by public acute hospitals (87.8% of 87,224). The percentage for this type of separation was lowest for Australian Capital Territory (0.4%). South Australia reported the highest rate of public acute hospital separations per 1,000 population (4.6). The overall separation rates for Victoria and South Australia across all hospital types were also the highest rate among the jurisdictions for which data are fully reported (4.9).

Private hospital separations constituted 11.5% of all mental health-related separations without specialised psychiatric care. Of the five jurisdictions with published private hospital figures, Queensland reported the highest number of patient days per 1,000 population (7.5).

Figure 7.8 shows the average length of stay in public acute hospitals for separations without specialised psychiatric care. The average length of stay across all jurisdictions was 5.4 days, which was much lower than the national average of 16.7 days for separations with specialised care (see Figure 7.3). Tasmania reported the highest average length of stay in public acute hospitals (12.3 days). Only Victoria and Western Australia reported lower average length of stay figures with 4.7 and 4.6 days, respectively compared to the national average of 5.4 days.



Patient demographics

Table 7.8 presents information on the number of separations without specialised psychiatric care in 2006-07 according to the characteristics of those receiving care. In addition, a rate (per 1,000 population) is reported to take into account relative population sizes and age structures. Again, the number of distinct individuals receiving care cannot be derived from the figures presented.

The highest proportion of separations without specialised psychiatric care was for patients aged 65 years and over (24.8%). This age group also has the highest number of separations per 1,000 population (7.9). The lowest proportion of separations without specialised care was for patients aged less than 15 years (6.6%).

Table 7.8: Mental health-related admitted patient separations^(a) without specialised psychiatric care, by patient demographic characteristics, 2006–07

Patient demographics	Number of separations ^(b)	Per cent of separations ^(c)	Rate (per 1,000 population) ^(d)
Age (years)			
Less than 15	5,741	6.6	1.4
15–24	9,707	11.1	3.3
25–34	15,685	18.0	5.4
35–44	15,703	18.0	5.1
45–54	11,340	13.0	3.9
55–64	7,440	8.5	3.2
65+	21,606	24.8	7.9
Sex			
Male	40,499	46.6	3.9
Female	46,376	53.4	4.3
Indigenous status^(e)			
Indigenous Australians	5,199	6.1	13.3
Other Australians ^(f)	79,561	93.9	4.0
Country of birth			
Australia	67,883	81.1	4.5
Overseas	15,844	18.9	2.5
Area of usual residence			
Major cities	51,724	60.8	3.6
Inner regional	18,086	21.2	4.5
Outer regional	11,602	13.6	6.0
Remote	2,463	2.9	8.1
Very remote	1,260	1.5	8.0
Total	87,224	100	4.2

(a) Separations for which care type was reported as *Newborn* with no qualified days, and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded.

(b) The number of separations for each demographic variable may not sum to the total due to missing and/or not reported data.

(c) The percentages shown do not include separations for which the demographic information was missing and/or not reported.

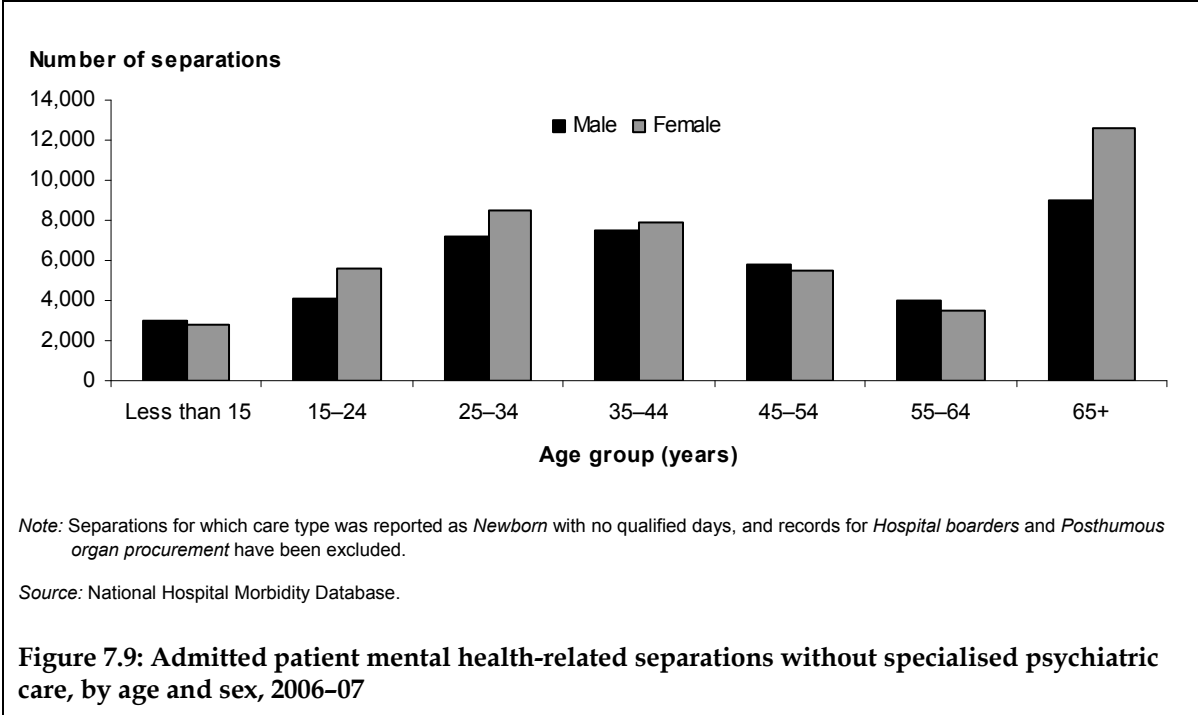
(d) Rates were directly age-standardised, with the exception of age which is a crude rate, as detailed in Appendix 2.

(e) Only Indigenous status data for New South Wales, Victoria, Queensland, Western Australia, South Australia and public hospitals in the Northern Territory have been included in this table as they are the only jurisdictions for which the data are considered to be of sufficient quality for further analysis. However, caution should be used in the interpretation of these data due to jurisdictional data collection differences; the data does not necessarily represent the national trend (see AIHW 2005).

(f) Includes separations where Indigenous status was missing or not reported.

Source: National Hospital Morbidity Database.

There was no major difference between the number of male and female separations per 1,000 population (3.9 and 4.3, respectively). However, as in the case of separations with specialised psychiatric care, there were differences in distributions of separations when age groups were taken into consideration (Figure 7.9). The biggest difference between the number of male and female separations was in the 65 years and over age group, followed by those aged 15–24 years.



The majority of mental health-related separations without specialised psychiatric care reported were for patients living in *Major cities* (60.8%). However, the highest number of separations per 1,000 population was for patients in *Remote* areas (8.1 per 1,000 population). The rate of separations involving Australian-born people was higher than for those born overseas (4.5 and 2.5, respectively). The reporting of marital status is not mandatory for separations without specialised psychiatric care, and is sparsely reported. Consequently, it has not been included in this report.

The data showed that the typical separation without specialised care involved an Australian-born non-Indigenous female aged between 25 and 44 years who lived in a major city.

Principal diagnosis

Table 7.9 presents the principal diagnoses recorded for mental health-related separations without specialised psychiatric care, using various groupings of diagnosis codes from ICD-10-AM. In 2006–07, the principal diagnosis of *Mental and behavioural disorders due to use of alcohol* (F10) accounted for the largest number of separations (17,516 or 20.1%). It was the most commonly reported diagnosis for public acute and private hospitals. *Depressive episode* (F32) ranked second, constituting 13.8% of the total number of reported principal diagnoses. Separations involving *Mental and behavioural disorders due to use of alcohol and other psychoactive*

substance use (F10 and F11–F19) constituted the majority of separations reported by public psychiatric hospitals (90.9%).

Figures 7.10 and 7.11 show the 10 most commonly reported principal diagnoses by age and sex. For patients aged less than 15 years, the most common principal diagnoses were *Sleep disorders* (G47) which were grouped under the category *Other specified mental health-related principal diagnosis* (see Table 7.9). In this category, sleep-related disorders constituted 65% of all separations. For the age group 15–24 years, *Mental and behavioural disorders due to use of alcohol* (F10) were the most common diagnoses. These diagnoses were also common for the age group 25–34 years, followed by *Mental and behavioural disorders due to other psychoactive substance use* (F11–F19) and *Depressive episode* (F32). More than half of separations associated with the use of alcohol (F10) were reported by those aged 35–54 years (50.9%).

Alcohol-related disorders (F10) were also top of the list for those aged 55–64 years.

Not surprisingly, separations with the principal diagnosis of *Dementia* (F00–F03) were predominantly reported for those aged 65 years and over. This was also the case for separations with the diagnosis of *Other organic mental disorders* (F04–F09). However, there were also more separations reported for this age group for *Depressive episode*, *Anxiety disorders* and *Bipolar affective disorders* (F32, F41 and F31) compared with other age groups.

For the principal diagnoses of *Mental and behavioural disorders due to use of alcohol and other psychoactive substance use* (F10 and F11–F19) and *Schizophrenia* (F20), more separations were reported for males than for females (Figure 7.11).

Table 7.9: Mental health-related admitted patient separations^(a) without specialised psychiatric care, by principal diagnosis in ICD-10-AM groupings and hospital type, 2006–07

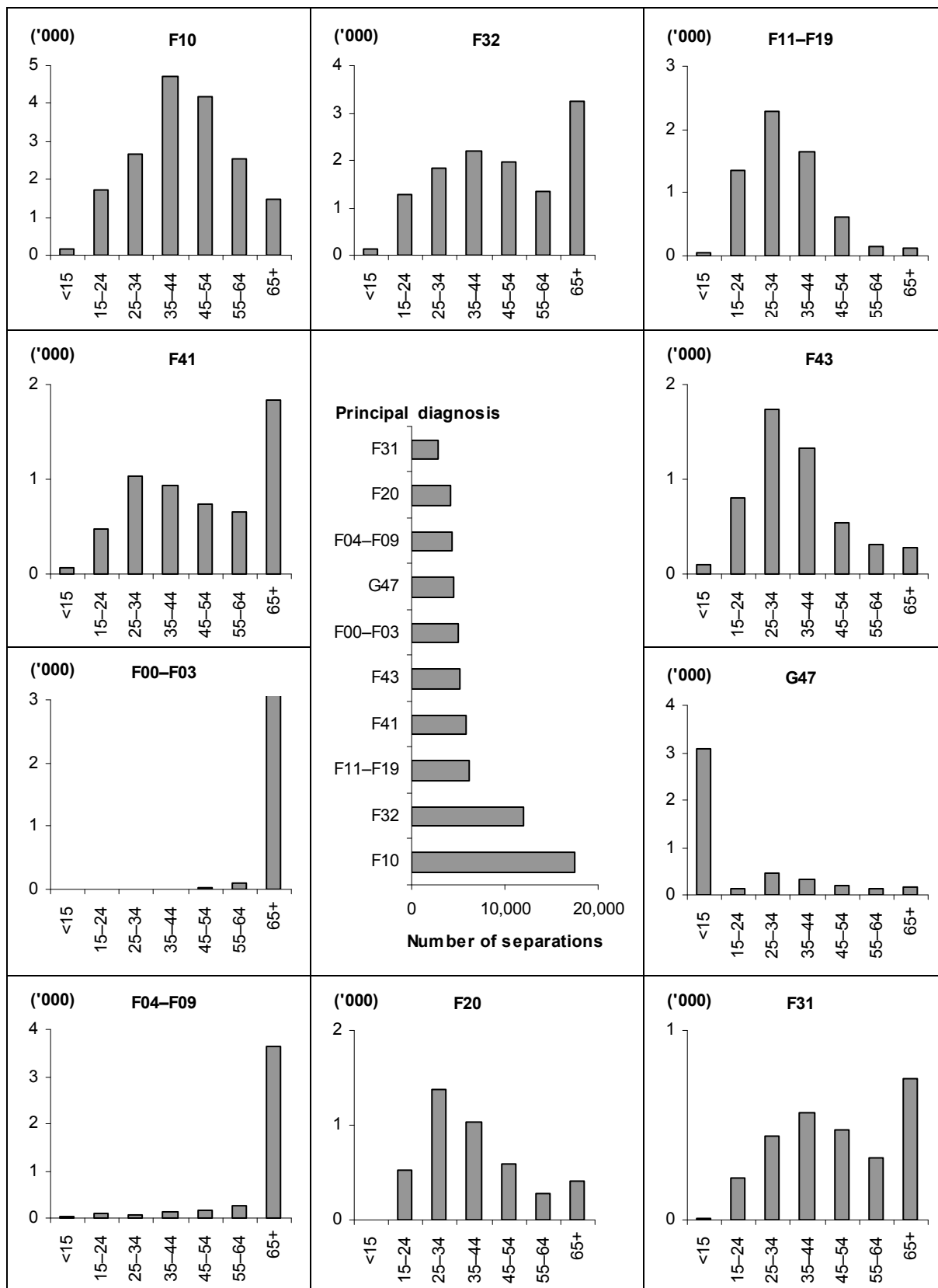
Principal diagnosis	Public acute	Public psychiatric	Private	Total	Per cent
F00–F03	4,322	1	704	5,027	5.8
F04–F09	3,874	1	511	4,386	5.0
F10	15,580	233	1,703	17,516	20.1
F11–F19	5,324	367	535	6,226	7.1
F20	4,137	3	83	4,223	4.8
F21, F24, F28, F29	1,074	1	26	1,101	1.3
F22	536	0	31	567	0.7
F23	1,042	1	21	1,064	1.2
F25	1,373	0	89	1,462	1.7
F30	275	0	12	287	0.3
F31	2,411	3	361	2,775	3.2
F32	10,669	11	1,341	12,021	13.8
F33	2,219	0	334	2,553	2.9
F34	205	3	57	265	0.3
F38–F39	65	0	13	78	0.1
F40	28	0	17	45	0.1
F41	5,037	1	720	5,758	6.6
F42	58	0	16	74	0.1
F43	4,478	21	608	5,107	5.9
F44	942	0	59	1,001	1.1
F45, F48	364	0	211	575	0.7
F50	970	0	101	1,071	1.2
F51–F59	923	0	305	1,228	1.4
F60	1,116	8	43	1,167	1.3
F61–F69	80	0	62	142	0.2
F70–F79	156	0	0	156	0.2
F80–F89	379	0	47	426	0.5
F90	51	0	1	52	0.1
F91	360	0	5	365	0.4
F92–F98	544	0	5	549	0.6
F99	190	1	2	193	0.2
G30	1,888	0	360	2,248	2.6
	540	5	29	574	0.7
	5,343	0	1,599	6,942	8.0
Total	76,553	660	10,011	87,224	100.0

(a) Separations for which care type was reported as *Newborn* with no qualified days, and records for *Hospital boarders* and *Postthumous organ procurement* have been excluded.

(b) Includes ICD-10-AM codes Z00.4, Z03.2, Z04.6, Z09.3, Z13.3, Z54.3, Z63.1, Z63.8, Z63.9, Z65.8, Z65.9, Z71.4, Z71.5 and Z76.0.

(c) Includes separations for which the principal diagnosis was any other mental health-related principal diagnosis as listed in Appendix 4.

Source: National Hospital Morbidity Database.



Note: Separations for which care type was reported as *Newborn* with no qualified days, and records for *Hospital borders* and *Posthumous organ procurement* have been excluded.

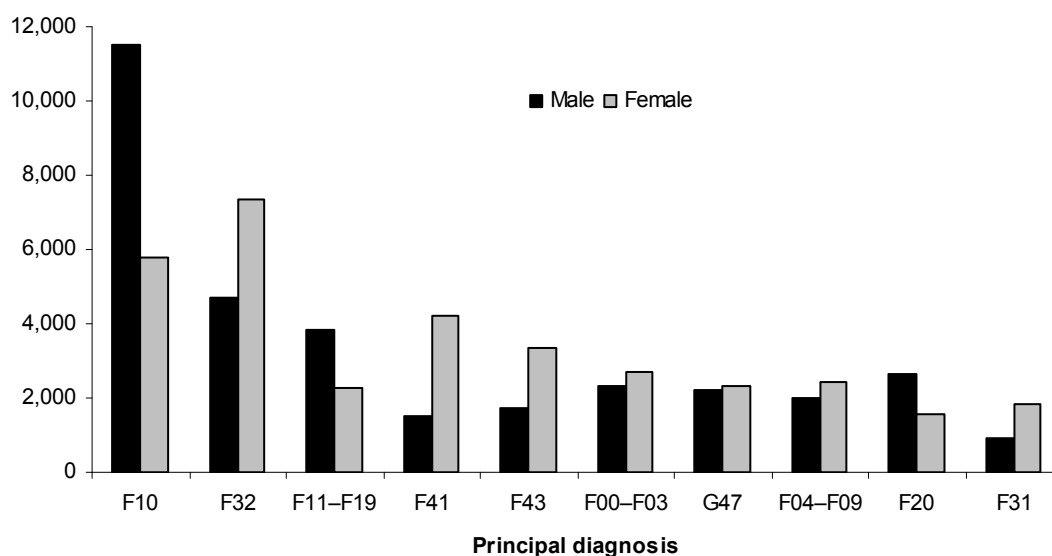
Source: National Hospital Morbidity Database.

Figure 7.10: Admitted patient mental health-related separations without specialised psychiatric care, by the 10 most commonly reported principal diagnoses and age group, 2006-07

Key to the principal diagnosis codes in Figures 7.10 and 7.11

- F00–F03 Dementia
- F04–F09 Other organic mental disorders
- F10 Mental and behavioural disorders due to use of alcohol
- F11–F19 Mental and behavioural disorders due to other psychoactive substance use
- F20 Schizophrenia
- F31 Bipolar affective disorders
- F32 Depressive episode
- F41 Other anxiety disorders
- F43 Reaction to severe stress and adjustment disorders
- G47 Sleep disorders

Number of separations



Note: Separations for which care type was reported as *Newborn* with no qualified days, and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded.

Source: National Hospital Morbidity Database.

Figure 7.11: Admitted patient mental health-related separations without specialised psychiatric care, by the 10 most commonly reported principal diagnoses and sex, 2006–07

Procedures

Table 7.10 details the 10 procedures or interventions most frequently reported for mental health-related separations without specialised psychiatric care. Procedures are classified according to the *Australian Classification of Health Interventions, 5th edition*. Further information on the classification is included in Appendix 3.

A total of 106,899 procedures were reported in relation to 48,369 separations. This reflects the fact that more than one procedure can be reported for each separation. No procedures were reported for 44.5% (38,855 out of 87,224) of the separations. The most frequently reported procedures were *Allied health intervention, social work* (12,714 procedures for 12,689 separations). Other allied health interventions also featured prominently in the 10 most frequently reported procedures.

Table 7.10: The 10 most frequently reported procedures for mental health-related admitted patient separations^(a) without specialised psychiatric care, 2006–07

Procedure	Procedures ^(b)		Separations ^{(b)(c)}	
	Number	Per cent	Number	Per cent
95550–01 Allied health intervention, social work	12,714	11.9	12,689	12.0
95550–03 Allied health intervention, physiotherapy	9,642	9.0	9,636	9.1
56001–00 Computerised tomography of brain	8,067	7.5	8,037	7.6
93340–02 Electroconvulsive therapy ≤12 treatments	7,652	7.2	7,649	7.3
92514–99 General anaesthesia, ASA 99	6,981	6.5	6,428	6.1
95550–02 Allied health intervention, occupational therapy	6,363	6.0	6,349	6.0
95550–00 Allied health intervention, dietetics	4,561	4.3	4,553	4.3
92003–00 Alcohol detoxification	4,063	3.8	4,062	3.9
95550–10 Allied health intervention, psychology	2,981	2.8	2,980	2.8
92006–00 Drug detoxification	2,647	2.5	2,646	2.5
Other reported procedures	41,228	38.6	40,297	38.3
Totals				
Number of separations with at least one procedure	..	..	48,369	55.5
Number of separations with no procedure reported	..	..	38,855	44.5
Total	106,899	100	87,224	100

(a) Separations for which care type was reported as *Newborn* with no qualified days, and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded.

(b) The number of procedures may not equal the number of separations, as the same procedure may have been performed more than once for each separation.

(c) The sum of the number of separations is not necessarily equivalent to the total, as multiple procedures can be reported for each separation.

.. Not applicable.

Source: National Hospital Morbidity Database.

7.5 Separations with mental health-related additional diagnoses

In addition to the 329,958 admitted patient mental health-related separations, 287,493 separations were not classed as mental health-related (that is, did not have a mental health-related principal diagnosis or receive specialised psychiatric care) but had at least one mental health-related additional diagnosis. These separations accounted for 2,803,784 patient days.

In relation to these separations, the most commonly reported mental health-related additional diagnoses were *Mental and behavioural disorders due to use of alcohol* (F10; 59,891 separations), *Unspecified dementia* (F03; 51,252 separations) and *Depressive episode* (F32; 36,657 separations).

The most commonly reported principal diagnoses for these separations were *Care involving use of rehabilitation procedures* (Z50; 18,397 separations), *Other chronic obstructive pulmonary disease* (J44; 10,131 separations) and *Fracture of femur* (S72; 7,439 separations).

7.6 Additional data

Additional tables containing data on mental health-related admitted patient separations are available from the Australian Institute of Health and Welfare (AIHW) website. In addition, data on mental health-related separations for admitted patient mental health care from the NHMD can be accessed via interactive data cubes on the AIHW website. The data cubes allow users to create customised tables based on the number of separations by age group, sex, sector, mental health legal status and year and type of separation, for each principal diagnosis. See Section 1.5 for details on how to access these additional resources.