

3 Hospital service characteristics

This chapter presents a national overview of available hospital establishment data for mental health service delivery. The focus of this report is those people who receive mental health services in admitted patient facilities. Public and private sector psychiatric hospitals, in addition to many public and private sector acute hospitals, provide admitted patient mental health services. As a result, this chapter has drawn on data from a number of sources including the National Public Hospital Establishments Database (NPHEd), the Australian Bureau of Statistics' Private Health Establishments Collection and the National Hospital Morbidity Database. The specific caveats for data in each collection are outlined throughout this chapter.

No data in this report are extracted from the National Survey of Mental Health Services (NSMHS), which was conducted by the Commonwealth Department of Health and Aged Care for the 1997–98 reporting period. It should be noted that NSMHS data are not comparable with data extracted from NPHEd, provided in this chapter. The two collections have differing scope and counting rules. In some cases, establishments, which reported to NSMHS are out of scope for the NPHEd. Data reported to NPHEd are recorded according to agreed definitions published in the *National Health Data Dictionary* (NHDC 1999). While data reported to the NSMHS are broadly based on these definitions, a number of counting rules and inclusions/exclusions result in substantially different results between the two collections. For more information on NSMHS, see the *National Mental Health Report 1997* (CDHAC 1999).

3.1 Psychiatric hospitals

This section describes psychiatric hospitals in terms of number of hospitals, availability of beds, staff employed, expenditure and revenue. Most of the data in this section relate to public psychiatric hospitals, but some data on private hospitals are also presented. Public psychiatric hospital data were obtained from the NPHEd. This database holds a record for each public hospital in Australia and is collated from routine administrative collections. Data include hospital resources (beds, staff and specialised services), recurrent expenditure, non-appropriation revenue and summary data on services to admitted and non-admitted patients. The information presented below relates to only those establishments classified under the National Health Data Dictionary definition as public psychiatric hospitals.

Information from the NPHEd on the number of public psychiatric hospitals and the associated number of hospital beds available by State and Territory is presented in Table 3.1.1. In 1997–98, there were 24 public psychiatric hospitals Australia-wide. The number of separate services reported is similar to the 23 recorded for the 1996–97 year (Table 3.1.2). Despite the significant limitations of comparing establishment data across time with changing reporting arrangements, there has been a clear reduction in the number of public psychiatric hospitals since 1989–90.

Table 3.1.1: Number of public psychiatric hospitals and available beds, States and Territories, 1997–98

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public psychiatric hospitals	9	1	7	5	1	1	0	0	24
Available beds ^(a)	1,208	53	911	436	504	n.a.	0	0	3,112

(a) Average available beds where possible, otherwise available beds at June 30.

Source: National Public Hospitals Establishments Database.

A more reliable indicator of shifts in public psychiatric hospital service delivery is the number of available beds. The number of available beds for the 1997–98 year was 3,112 in comparison to 3,426 available beds for the 1996–97 year (Table 3.1.2). Nationally, there was a 63% decline in available beds in public psychiatric hospitals between 1989–90 and 1997–98. This indicates that the emphasis on integration of mental health services into acute hospital and community settings has resulted in public psychiatric hospitals becoming a shrinking section of mental health services.

Table 3.1.2: Number of public psychiatric hospitals and available beds, Australia, 1989–90 to 1997–98

	1989–90	1991–92	1992–93	1993–94	1994–95	1995–96	1996–97	1997–98
Public psychiatric hospitals ^(a)	59	45	36	37	35	34	23	24
Available beds ^{(a)(b)}	8,513	7,266	5,814	5,360	4,685	3,992	3,426	3,112

(a) These data come from three separate sources: Hospital Utilisation and Costs Study data for 1989–90 and 1990–91; National Survey of Mental Health Services data from 1992–93 to 1996–97 and National Public Hospitals Establishment Database data for 1997–98.

(b) Average available beds where possible, otherwise available beds at June 30.

Source: National Public Hospitals Establishments Database; National Survey of Mental Health Services.

There were 23 private psychiatric hospitals in operation during 1997–98 (Table 3.1.3) compared to 24 for the 1996–97 year (ABS 1998b). The number of available private psychiatric hospital beds for 1997–98 was an average of 1,344. This is comparable with the 1996–97 figure of 1,351 beds (ABS 1998).

Table 3.1.3: Number of private psychiatric hospitals and available beds, States, 1997–98

	NSW	Vic	Qld	Other States ^(a)	Total
Private psychiatric hospitals	9	5	3	6	23
Available beds ^(b)	476	307	225	336	1,344

(a) Data for Western Australia, South Australia and Tasmania amalgamated for de-identification purposes.

(b) Average for year.

Source: ABS Private Health Establishments Collection.

Data on the number of staff employed in public psychiatric hospitals by State and Territory is presented in Table 3.1.4. The full-time equivalent staff (FTE) data presented are the average available staff for the year. It needs to be noted that data collection by staff category is not consistent across all States and Territories, with some jurisdictions providing best estimates. An average of 6,128 FTE staff were employed in Australian public psychiatric hospitals in 1997–98. The majority of the FTE staff were nursing staff (55% or 3,378 FTE staff), followed by administrative/clerical and domestic/other staff with 10% (620 FTE staff) and 19% (1,179 FTE staff) respectively. Salaried medical officers and diagnostic/allied health professionals made up 4% (270 FTE staff) and 9% (555 FTE staff) of the public psychiatric hospital workforce respectively. The number of FTE psychiatric hospital staff employed per 1,000 public psychiatric hospital separations shows considerable variation across jurisdictions. The usefulness of this rate is limited as it is based on total separations and does

not adjust for differing casemix or levels of use of contracted staff. Whilst the FTE number of psychiatric hospital staff employed per 1,000 public psychiatric hospital patient days showed less pronounced variation across States and Territories, contracted staff are still not accounted for.

Table 3.1.4: Number of full-time equivalent staff, staff per 1,000 separations and staff per 1,000 patient days, public psychiatric hospitals, States and Territories, 1997–98

Full-time equivalent staff	NSW	Vic	Qld	WA	SA	Tas	Total
Salaried medical officers	107	13	45	48	57	n.a.	270
Registered nurses	n.a.	66	740	476	479	n.a.	1,761
Enrolled nurses	n.a.	5	185	118	114	n.a.	422
Student nurses	n.a.	n.a.	0	0	n.a.	n.a.	0
Trainee/pupil nurses	n.a.	n.a.	0	0	54	n.a.	54
<i>Total nurses</i>	<i>1,141</i>	<i>71</i>	<i>925</i>	<i>594</i>	<i>647</i>	<i>n.a.</i>	<i>3,378</i>
Other personal care staff	25	6	95	0	n.a.	n.a.	126
Diagnostic & allied health prof.	211	10	135	136	63	n.a.	555
Administrative & clerical staff	230	25	155	107	103	n.a.	620
Domestic & other staff	413	1	360	208	197	n.a.	1,179
Total staff	2,127	126	1,715	1,093	1,067	n.a.	6,128
<i>Per 1,000 separations</i>	<i>184.88</i>	<i>82.89</i>	<i>1,160.35</i>	<i>341.67</i>	<i>247.05</i>	<i>n.a.</i>	<i>271.43</i>
<i>Per 1,000 patient days</i>	<i>4.44</i>	<i>3.73</i>	<i>3.12</i>	<i>7.19</i>	<i>8.25</i>	<i>n.a.</i>	<i>4.35</i>

n.a. Not available.

Source: National Public Hospital Establishments Database.

In 1997–98, the average number of FTE staff employed by private sector psychiatric hospitals was 1,514, 20% of the total psychiatric hospital workforce (Table 3.1.5). Two-thirds of the private psychiatric hospital workforce was located in New South Wales (636.75 FTE staff) and Victoria (363.7 FTE staff). The private sector rate for FTE staff per 1,000 separations (26.7) was well below the public sector rate (271.4). This difference in rates could reflect the differences in caseload seen by the public psychiatric and private hospitals. The public sector (4.4) and private sector (4.2) FTE staff per 1,000 patient days rates were less variable.

Table 3.1.5: Number of full-time equivalent staff, staff per 1,000 separations and staff per 1,000 patient days, private psychiatric hospitals, States, 1997–98

Full-time equivalent staff	NSW	Vic	Qld	Other States^(a)	Australia
Total	636.75	363.7	230.32	284.03	1,514.83
Per 1,000 separations	31.83	20.8	18.24	43.44	26.74
Per 1,000 patient days	4.73	3.9	3.39	4.13	4.15

(a) Data for Western Australia, South Australia and Tasmania amalgamated for de-identification purposes.

Source: ABS Private Health Establishments Collection.

Table 3.1.6 presents information on the gross recurrent expenditure on public psychiatric hospitals, including salary and non-salary categories. Expenditure data in this table excludes any payments for population health, primary and community-based services administered by hospitals and trust fund expenditure.

Table 3.1.6: Recurrent expenditure (\$'000) public psychiatric hospitals, States and Territories, 1997–98

Recurrent expenditure category	NSW ^(a)	Vic ^(b)	Qld ^(c)	WA ^(d)	SA ^(e)	Tas	Total
Salaried medical officers	11,154	n.a.	3,830	5,612	4,166	n.a.	24,762
Registered nurses	n.a.	n.a.	36,353	22,102	21,236	n.a.	79,691
Enrolled nurses	n.a.	n.a.	6,938	3,874	3,611	n.a.	14,423
Student nurses	n.a.	n.a.	—	—	n.a.	n.a.	—
Trainee/pupil nurses	n.a.	n.a.	—	—	1,801	n.a.	1,801
<i>Total nurses</i>	<i>61,248</i>	<i>n.a.</i>	<i>43,291</i>	<i>25,976</i>	<i>26,648</i>	<i>n.a.</i>	<i>157,163</i>
Other personal care staff	694	n.a.	3,113	—	n.a.	n.a.	3,807
Diagnostic & allied health prof.	10,397	n.a.	5,152	5,235	2,281	n.a.	23,065
Administrative & clerical staff	10,210	n.a.	5,386	3,716	3,372	n.a.	22,684
Domestic & other staff	14,782	n.a.	12,796	6,304	5,294	n.a.	39,176
Total staff	108,484	6,221	73,568	46,843	41,761	n.a.	276,877
Payments to visiting medical officers	2,329	n.a.	1,958	11	564	n.a.	4,862
Superannuation	10,712	n.a.	7,415	2,798	2,420	n.a.	23,345
Drug supplies	2,946	n.a.	1,653	1,019	1,634	n.a.	7,252
Medical & surgical supplies	1,033	n.a.	384	340	347	n.a.	2,104
Food supplies	2,753	n.a.	2,450	1,437	1,244	n.a.	7,884
Domestic services	2,451	n.a.	4,923	1,456	1,573	n.a.	10,403
Repairs & maintenance	3,711	n.a.	1,403	1,372	2,024	n.a.	8,510
Patient transport	690	n.a.	7	104	622	n.a.	1,423
Administrative expenses	8,471	n.a.	5,357	2,616	2,673	n.a.	19,117
Interest payments	n.a.	n.a.	n.a.	—	n.a.	n.a.	—
Depreciation	5,914	n.a.	n.a.	1,980	n.a.	n.a.	7,894
Other recurrent expenditure	2,241	n.a.	165	3,003	929	n.a.	6,338
Total other payments	43,255	1,828	25,715	16,134	14,030	n.a.	100,962
Total recurrent expenditure	151,739	8,049	99,283	62,977	55,791	n.a.	377,839

(a) New South Wales expenditure recorded against special purposes and trust funds is excluded.

(b) Victorian reporting arrangements do not allow for the breakdown of recurrent expenditure for public psychiatric hospitals.

(c) Queensland *Interest payments* are included in *Administrative expenses*.

(d) Western Australian *Superannuation* may vary from previous years which are largely based on cash rather than accrual accounting.

(e) South Australian *Other personnel care staff* are included in *Diagnostic & health professionals* and *Domestic & other staff*. *Interest payments* are included in *Administrative expenses*. Most *Trainee/pupil nurses* are enrolled in tertiary institutions. Termination payments are included in *Other recurrent expenditure*.

Note: n.a. not available

Source: National Public Hospital Establishments Database.

Salary payments include salaries and wages, payments to staff on paid leave, worker's compensation and salaries paid to contract staff for supply of labour. Non-salary payments include medical/surgical supplies (excluding equipment purchases), administrative expenses and drug supplies. Data from the NPHED indicates that the recurrent expenditure

on public psychiatric hospitals in 1997–98 was \$377.9 million.² The following expenditure statistics also exclude Victoria, due to the absence of a further breakdown of the salary and non-salary categories. The salary category made up 73% (\$267.9 million) of the recurrent expenditure of public psychiatric hospitals. Salary and wage payments to nursing staff made up 58% (\$157.2 million) of the expenditure in the salary component. Domestic/other staff and salaried medical staff wage and salary payments made up 14% (\$39.2 million) and 9% (\$24.7 million) respectively. Within the non-salary component, superannuation (24% or \$23.3 million) and administrative expenses (19% or \$19.1 million) were the major subcategories.

In 1997–98, the recurrent expenditure for private psychiatric hospitals in Australia was over \$111 million (Table 3.1.7). This amount is almost 23% of the total psychiatric hospital recurrent expenditure. Two-thirds of the private sector recurrent expenditure was spent in New South Wales (\$45.1 million) and Victoria (\$29.8 million).

Table 3.1.7: Recurrent expenditure (\$'000) private psychiatric hospitals, States, 1997–1998

	NSW	Vic	Qld	Other States ^(a)	Total
Recurrent expenditure	45,139	29,829.4	16,192.4	19,980.2	111,141

(a) Data for Western Australia, South Australia and Tasmania amalgamated for de-identification purposes.

Source: ABS Private Health Establishments Collection.

Public psychiatric hospital revenue, excluding general revenue payments received from State or Territory governments, is presented in Table 3.1.8. The revenue received by Australian public psychiatric hospitals for 1997–98 was \$22.4 million.² This is equivalent to 6% of the total recurrent expenditure.² A large proportion of the total revenue for public psychiatric hospitals was collected as patient revenue (79% or \$17.7 million). In comparison, the proportion of total revenue that was collected as patient revenue for all public hospitals was 55%. The recoveries, which includes income from use of hospital facilities by salaried medical officers or private practitioners and other recoveries, was only 11% (\$2.6 million) of the collected revenue.

Table 3.1.8: Revenue (\$'000) public psychiatric hospitals, States and Territories, 1997–98

Revenue	NSW	Vic ^(a)	Qld	WA	SA	Tas	Total
Patient revenue ^(b)	8,556	n.a.	4,412	954	3,739	n.a.	17,661
Recoveries	2,231	n.a.	30	295	4	n.a.	2,560
Other revenue	328	n.a.	1,471	353	33	n.a.	2,185
Total revenue	11,116	n.a.	5,913	1,601	3,776	n.a.	22,406

(a) Victorian reporting arrangements do not allow for the identification of public psychiatric hospital revenue

(b) Patient revenue includes revenue for items such as pharmacy and ambulance, which may be considered as recoveries.

Source: National Public Hospitals Establishments Database.

² This calculation excludes Tasmania as the relevant data were not available.

3.2 Public Acute hospitals

In 1997–98 there were 107 public acute hospitals with specialised psychiatric units or wards in Australia (Table 3.2.1). Given the 1996–97 dataset did not obtain complete coverage for all States and Territories, a comparison with the equivalent 1996–97 figure is not possible.

Victoria (32%) and New South Wales (26%) both had a relatively large proportion of public acute hospitals with specialised psychiatric units or wards. The Australian Capital Territory and the Northern Territory each have two specialised psychiatric units, or wards, which represent the only admitted patient psychiatric facilities in those jurisdictions. The next section discusses the variation in separated patients according to their principal diagnosis in the public psychiatric hospital, public acute hospital and private hospital settings.

Table 3.2.1: Number of public acute hospitals with specialised psychiatric units or wards, States and Territories, 1997–98

Specialised services	NSW	Vic ^(a)	Qld	WA	SA	Tas	ACT	NT	Total
Psychiatric units/wards ^(b)	28	34	14	13	8	3	2	2	104

(a) Victorian data may be a slight underestimate as some small networks reported at network rather than campus level. Consequently, if two campuses within the network had a specialised type of service, it was counted as one.

(b) Excludes psychiatric and drug and alcohol hospitals.

Note: These data for some jurisdictions were not available for all hospitals so the number of services is therefore under-enumerated.

Source: National Public Hospitals Establishments Database.

3.3 Public and private hospital use

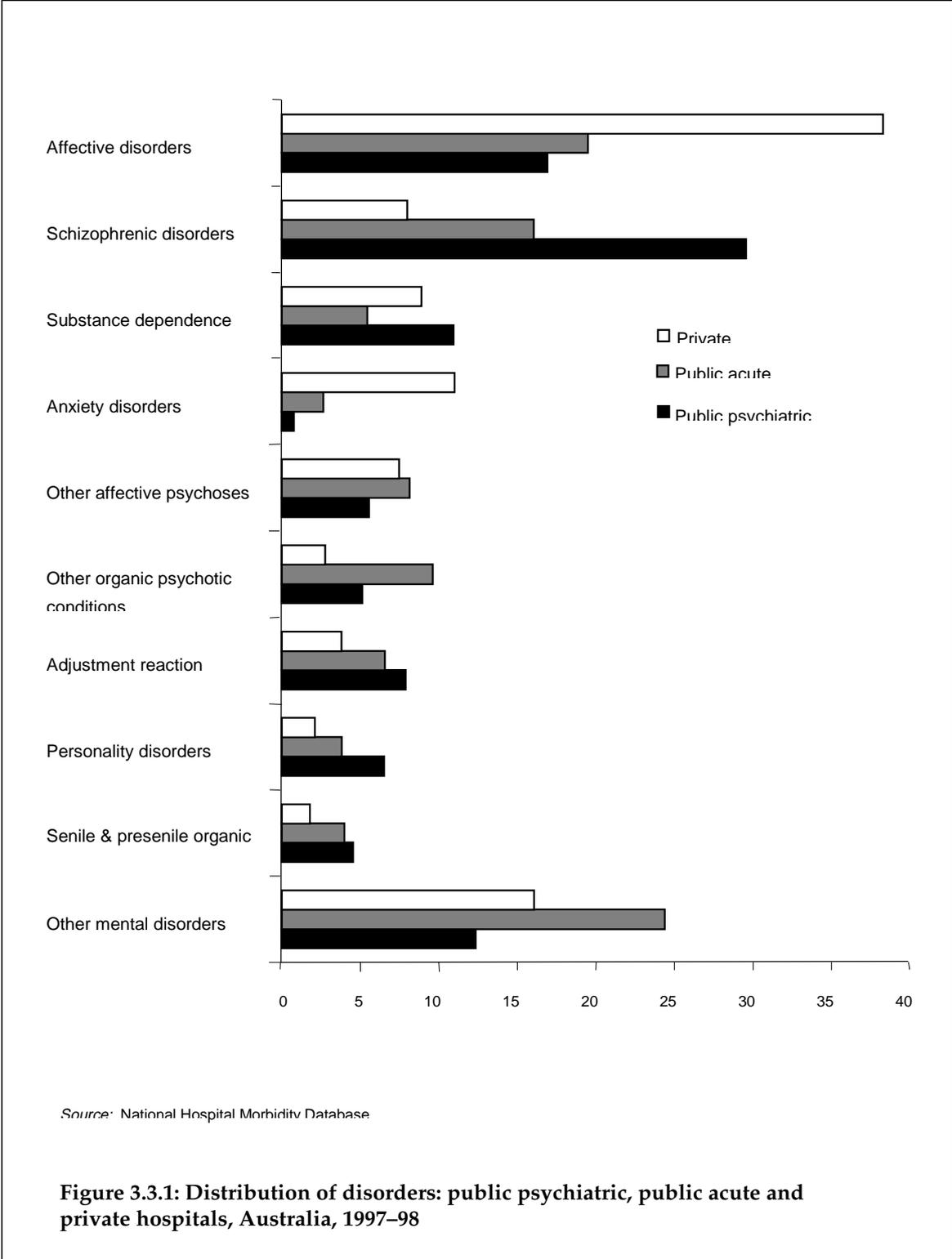
Figure 3.3.1 provides a comparison of the public psychiatric hospital, public acute hospital and private hospital settings, showing the variation in separated patients according to their principal diagnosis. Over 29% of the public psychiatric hospital separations for 1997–98 had *schizophrenic disorders* as the principal diagnoses (Figure 3.3.1 and Appendix Table A4.2).

Affective disorders and *substance dependence* also dominated public psychiatric hospital separations with 17% and 11% of separations respectively. Separations with *schizophrenic disorders* as the principal diagnoses were also involved the greatest number of psychiatric care days (610,105 days), followed by *other organic psychotic disorders* (166,859), *senile and presenile organic disorders* (106,842) and *other affective psychosis* (102,897).

The distribution of principal diagnoses for public psychiatric hospital separations differed markedly from the distributions for public acute and private hospitals (Figure 3.3.1). These hospital separations were characterised by fewer separations with principal diagnoses of *schizophrenic disorders*, *substance abuse* and *personality disorders*, and a greater proportion of separations with *affective* and *anxiety disorders* as the principal diagnoses.

The distribution of mental health disorders, as measured by proportion of separations, differs greatly between public acute and private hospitals. Private hospitals have a far greater proportion of separations with principal diagnoses of *affective disorders* (38%) than public acute (20%) and public psychiatric (17%) hospitals (Figure 3.1.1). There is a similar disparity with respect to *anxiety disorders*, with private hospitals (11%) having relatively more separations than public acute (3%) and public psychiatric (1%) hospitals. The proportion of disorders in public acute hospitals tended to fall between the public psychiatric hospital and private hospital extremes across most of the major disorder categories examined. For public acute hospitals, separations with *schizophrenic disorders* as

the principal diagnoses also involved the greatest number of patient care days are (349,926 days), followed by *affective disorders* (261,363); *senile and presenile organic conditions* (183,346) and *other organic psychotic conditions* (179,322) (Figure 3.3.1 and Appendix Table A4.1).



The statistics presented in this chapter indicate the variation in activity related to mental health care delivered by public and private hospitals. However, a large proportion of mental health care occurs outside the admitted patient services and includes the services offered by general practitioners, outpatient services and various mental health professionals. The next chapter provides a review of the available information on service use of these non-admitted patient services.