9 Public hospitals

Public hospitals are important providers of government funded health services in Australia. A key objective of government is to provide public hospital services to ensure the population has access to cost-effective health services, based on clinical need and within clinically appropriate times, regardless of geographic location. Public hospitals provide a range of services, including:

- acute care services to admitted patients
- sub-acute and non-acute services to admitted patients (for example, rehabilitation or palliative care, or long stay maintenance care)
- emergency, outpatient and other services to non-admitted patients[1]
- mental health services, including services provided to admitted patients by designated psychiatric/psychogeriatric units
- public health services
- teaching and research activities.

The public hospitals chapter focuses on acute care services provided to admitted patients and emergency services provided to non-admitted patients in public hospitals (see *Report on Government Services 2006* [2006 Report], chapter 9). These services comprise the bulk of public hospital activity and, in the case of acute care services to admitted patients, have the most reliable data available. Some data in the chapter include sub-acute and non-acute care services where they cannot yet be separately identified from acute care.

In some instances, stand-alone psychiatric hospitals are included in the chapter (see 2006 Report, chapter 9), although their role is diminishing in accordance with the National Mental Health Strategy. Under the strategy, the provision of psychiatric treatment is shifting away from specialised psychiatric hospitals to mainstream public hospitals and the community sector. The performance of psychiatric hospitals and psychiatric units of public hospitals is examined more closely in 'Health management issues' (see 2006 Report, chapter 11).

Some common health terms relating to hospitals are defined in box 9.1.

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[1] Other services to non-admitted patients include community health services such as baby clinics and immunisation units, district nursing services and other outreach services (AIHW 2001).

Box 9.1 Some common terms relating to hospitals

Patients

admitted patient: a patient who has undergone a formal admission process in a public hospital to begin an episode of care. Admitted patients may receive acute, sub-acute or non-acute care services.

non-admitted patient: a patient who has not undergone a formal admission process, but who may receive care through an emergency department, outpatient or other non-admitted service.

Types of care

Classification of care depends on the principal clinical intent of the care received.

acute care: clinical services provided to admitted or non-admitted patients, including managing labour, curing illness or treating injury, performing surgery, relieving symptoms and/or reducing the severity of illness or injury, and performing diagnostic and therapeutic procedures. Most episodes involve a relatively short hospital stay.

sub-acute and non-acute care: clinical services provided to patients suffering from chronic illnesses or recovering from such illnesses. Services include rehabilitation, planned geriatric care, palliative care, geriatric care evaluation and management, and services for nursing home type patients. Clinical services delivered by designated psychogeriatric units, designated rehabilitation units and mothercraft services are considered non-acute.

Hospital outputs

separation: an episode of care that 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 in the type of care for an admitted patient (for example, from acute care to rehabilitation). Admitted patients who receive same day procedures (for example, renal dialysis) are included in separation statistics.

casemix-adjusted separations: the number of separations adjusted to account for differences across hospitals in the complexity of their episodes of care. Casemix adjustment is an important step to achieving comparable measures of efficiency across hospitals and jurisdictions.

(Continued on next page)

Box 9.1 **(Continued)**

non-admitted occasion of service: occasion of examination, consultation, treatment or other service provided to a non-admitted patient in a functional unit of a health service establishment. Services may include emergency department visits, outpatient services (such as pathology, radiology and imaging, and allied health services, including speech therapy and family planning) and other services to non-admitted patients. Hospital non-admitted occasions of service are not yet recorded consistently across states and territories, and relative differences in the complexity of services provided are not yet documented.

Other common health terms

AR-DRG (Australian refined diagnosis related group): a patient classification system that hospitals use to match their patient services (hospital procedures and diagnoses) with their resource needs. AR-DRG version 4.2 is based on the ICD-10-AM classification.

ICD-10-AM (the Australian modification of the International Standard Classification of Diseases and Related Health Problems): the current classification of diagnoses and procedures, replacing the earlier ICD-9-CM.

Source: AIHW (2005); DHAC (1998, 2000); NCCH (1998); NHDC (2001, 2003); 2006 Report, pp. 9.2–9.3, box 9.1.

Indigenous data in the public hospitals chapter

The public hospitals chapter in the 2006 Report contains the following data items on Indigenous people:

- number of separations in public and private hospitals, 2003-04
- separation rates, public hospitals, 2003-04
- fetal, neonatal and perinatal death rates, 1999–2003.

Supporting tables

Supporting tables for data within the public hospitals chapter of this compendium are contained in attachment 9A of the compendium. These tables are identified in references throughout this chapter by an ‘A’ suffix (for example, table 9A.3 is table 3 in the public hospitals attachment). As the data are directly sourced from the 2006 Report, the compendium also notes where the original table, figure or text in the 2006 Report can be found. For example, where the compendium refers to ‘2006

Report, p. 9.15' this is page 15 of chapter 9 of the 2006 Report, and '2006 Report, table 9A.2' is attachment table 2 of attachment 9 of the 2006 Report.

Separation rates for Indigenous patients

Data on Indigenous patients are limited by the accuracy and extent to which Indigenous people are identified in hospital records. Identification varies across states and territories. In 1998, a pilot study in 11 hospitals found that the accuracy with which a person's Indigenous status was recorded varied greatly from hospital to hospital, ranging from 55 per cent to 100 per cent (ATSIHWIU 1999). The quality of data improved from 2000-01 because all jurisdictions used consistent definitions for Indigenous status from that year. Nevertheless, the quality of data for 2003-04 is considered acceptable only for WA, SA and the NT (AIHW 2005). In addition, difficulties in estimating the size of the Indigenous population limit the comparability of data over time.

In 2003-04, separations for Indigenous people accounted for around 3.2 per cent of total separations in 2003-04 and 4.8 per cent of separations in public hospitals (table 9.1), but the Indigenous population made up only around 2.4 per cent of the total population. Most Indigenous separations (94 per cent) occurred in public hospitals. The low proportion of private hospital separations for Indigenous people may be due partly to a lower proportion of Indigenous patients being correctly identified in private hospitals and partly to this group's lower use of private hospitals. Data in table 9.1 need to be interpreted with care given that only data from WA, SA and the NT are considered to be of acceptable quality (AIHW 2005).

Table 9.1 **Separations, by Indigenous status and hospital sector, 2003-04[a]**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust*
Public hospital separations (‘000)									
Indigenous[b]	39.6	9.2	54.0	37.3	14.5	1.8	1.5	45.1	203.0
Non-Indigenous	1 277.0	1 178.4	654.8	329.9	354.2	74.4	65.2	25.0	3 958.8
Not reported	8.9	–	12.2	–	10.5	4.7	2.3	–	38.6
Total	**1 325.5**	**1 187.5**	**721.0**	**367.2**	**379.1**	**80.9**	**69.0**	**70.1**	**4 200.5**
Private hospital separations (‘000)									
Indigenous[b]	0.7	0.2	4.0	7.4	0.4	np	np	np	13.1
Non-Indigenous	710.7	680.6	482.4	282.8	202.9	np	np	np	2 420.2
Not reported	0.7	–	153.6	–	2.9	np	np	np	207.4
Total	**712.1**	**680.8**	**640.0**	**290.2**	**206.2**	**np**	**np**	**np**	**2 640.7**
Indigenous separations as proportion of total separations (%)									
Public hospitals	3.0	0.8	7.5	10.2	3.8	2.2	2.2	64.3	4.8
Private hospitals	0.1	0.0	0.6	2.5	0.2	np	np	np	0.5
All hospitals	2.0	0.5	4.3	6.8	2.5	np	np	np	3.2
Separations in public hospitals as a proportion of separations in all hospitals (%)									
Indigenous[b]	98	98	93	84	97	np	np	np	94
Non-Indigenous	64	63	58	54	64	np	np	np	62

a Excludes separations for which the care type was reported as ‘newborn with no qualified days’ and records for hospital boarders and posthumous organ procurement. **b** Identification of Indigenous patients is not considered complete and completeness varies across jurisdictions. The AIHW advised that only data from WA, SA and the NT are considered to be of acceptable quality (AIHW 2005). – Nil or rounded to zero. **np** Not published.

Source: AIHW (2005); table 9A.1; 2006 Report, p. 9.12, table 9.1.

In 2003-04, on an age standardised basis, 677.6 public hospitals separations (including same day separations) for Indigenous patients were reported per 1000 Indigenous people (table 9.2). This rate was markedly higher than the corresponding rate for the total population of 207.7 per 1000 (table 9.2). Incomplete identification of Indigenous people limits the validity of comparisons over time, as well as across jurisdictions.

In previous editions of the Report, this chapter contained hospital separation ratios for Indigenous people by selected conditions such as diabetes and infectious pneumonia (see SCRGSP 2005b, pp. 9.11–9.14). Some of these data are now reported in chapter 10 against the outcome indicators ‘vaccine preventable hospitalisations’ and ‘hospitalisations for diabetes’. These data were moved as they do not signal the performance of hospitals, but do provide some indication of the outcomes of primary healthcare provided to Indigenous people.

Table 9.2 **Estimates of public hospital separations per 1000 people, by reported Indigenous status[a]**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT[b]*	*NT*	*Aust*
1999-2000									
Indigenous[c]	363.4	413.1	708.3	868.9	875.5	132.2	1 461.7	1 105.0	652.4
Total population	192.1	211.7	205.0	202.0	232.6	160.1	219.2	372.9	204.6
2000-01									
Indigenous[c]	403.8	461.4	671.6	852.2	772.6	110.6	858.0	1 031.6	637.5
Total population	187.9	213.6	195.5	199.7	228.8	150.5	217.0	370.9	201.1
2001-02									
Indigenous[c]	361.1	416.0	676.5	752.7	743.6	139.4	982.8	1 129.6	614.3
Total population	188.6	222.5	192.5	190.7	229.7	165.0	216.3	394.3	202.8
2002-03									
Indigenous[c]	406.7	476.0	685.2	809.4	788.1	173.1	1 200.0	1 223.3	657.2
Total population	190.2	231.3	189.4	195.4	231.0	164.5	219.7	422.5	205.7
2003-04									
Indigenous[c]	426.4	471.8	710.9	789.3	853.9	175.3	1 118.5	1 286.2	677.6
Total population	192.9	235.0	189.3	191.0	235.9	162.8	235.6	428.9	207.7

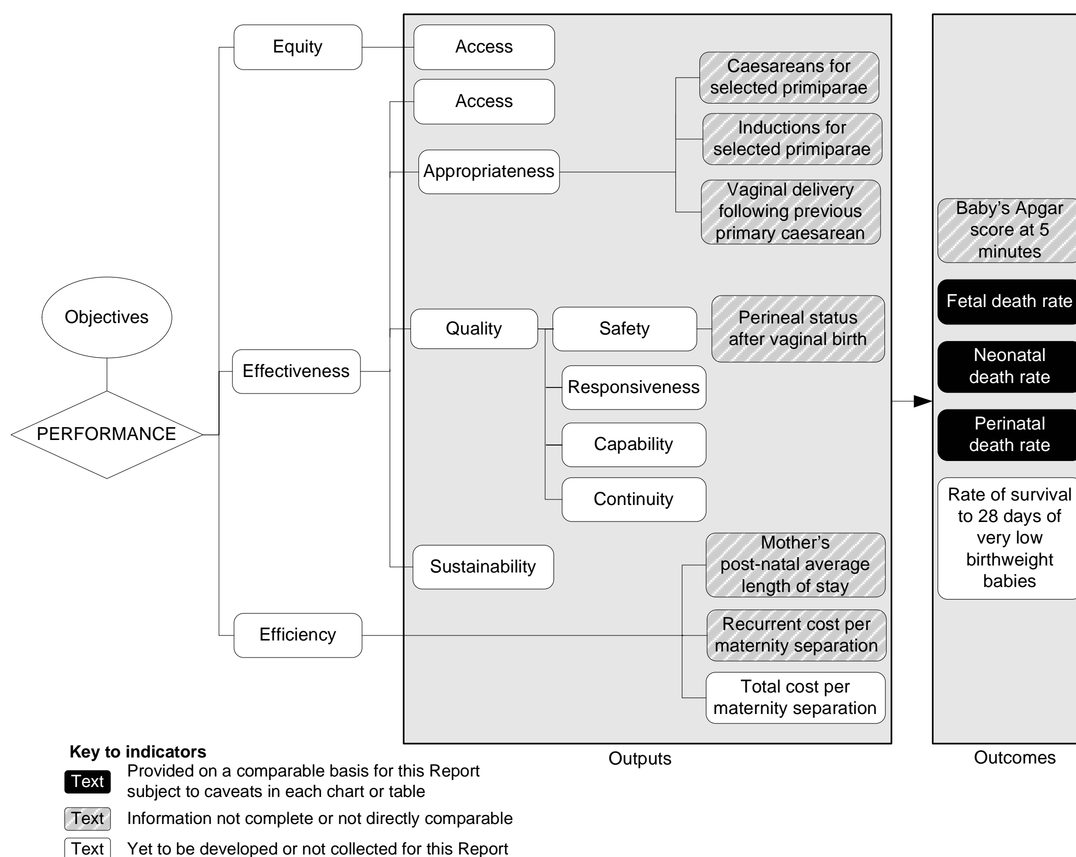
[a] The rates are directly age standardised to the Australian population at 30 June 2001. [b] Rates reported for Indigenous people in the ACT are subject to variability, given the small Indigenous population in the jurisdiction. A high proportion of separations are for maintenance renal dialysis episodes attributable to a small number of people. [c] Identification of Indigenous patients is not considered complete and completeness varies across jurisdictions. The AIHW advised that only data from WA, SA and the NT are of acceptable quality.

Source: AIHW (unpublished); AIHW (2005); table 9A.2; 2006 Report, p. 9.13, table 9.2.

Framework of performance indicators for maternity services

Data for Indigenous people are reported for a subset of the performance indicators for maternity services in the 2006 Report. It is important to interpret these data in the context of the broader performance indicator framework outlined in figure 9.1. The performance indicator framework shows which data are comparable in the 2006 Report. For data that are not considered directly comparable, the text includes relevant caveats and supporting commentary.

Figure 9.1 **Performance indicators for maternity services**



Source: 2006 Report, p. 9.64, figure 9.18.

Fetal death rate

The 'fetal death rate' is an indicator of the outcomes of maternity services (box 9.2). Fetal deaths rates by Indigenous status are shown in figure 9.2.

Box 9.2 **Fetal death rate**

Fetal death (stillbirth) is the birth of a child who did not at any time after delivery breathe or show any other evidence of life, such as a heartbeat. Fetal deaths by definition include only infants weighing at least 400 grams or of a gestational age of at least 20 weeks.

'Fetal death rate' is reported as an indicator because maternity services for admitted patients have some potential to reduce the likelihood of fetal deaths. This potential is limited, however, and other factors (such as the health of mothers and the progress of pregnancy before hospital admission) are also important.

(Continued on next page)

Box 9.2 **(Continued)**

The 'fetal death rate' is calculated as the number of fetal deaths divided by the total number of births (live births and fetal deaths combined), by State or Territory of usual residence of the mother. The rate of fetal deaths is expressed per 1000 total births. This indicator is reported by the Indigenous status of the mother.

Low fetal death rates may indicate high quality maternity services. In jurisdictions where the number of fetal deaths is low, small annual fluctuations in the number affect the annual rate of fetal deaths.

Differences in the 'fetal death rate' between jurisdictions are likely to be due to factors outside the control of maternity services for admitted patients. To the extent that the health system influences fetal death rates, the health services that may have an influence include outpatient services, general practice services and maternity services.

Neonatal death rate

The 'neonatal death rate' is an indicator of the outcomes of maternity services (box 9.3). Neonatal death rates by Indigenous status are shown in figure 9.2.

Box 9.3 **Neonatal death rate**

Neonatal death is the death of a live born infant within 28 days of birth (see section 9.8 for a definition of a live birth). As for fetal deaths, a range of factors contribute to neonatal deaths. The influence of maternity services for admitted patients, however, is greater for neonatal deaths than for fetal deaths, through the management of labour and the care of sick and premature babies.

The 'neonatal death rate' is calculated as the number of neonatal deaths divided by the number of live births registered. The rate of neonatal deaths is expressed per 1000 live births, by State or Territory of usual residence of the mother. This indicator is reported by the Indigenous status of the mother.

Low 'neonatal death rates' may indicate high quality maternity services. The rate tends to be higher among premature babies, so a lower neonatal death rate may also indicate a lower percentage of pre-term births.

Perinatal death rate

The 'perinatal death rate' is an indicator of the outcomes of maternity services (box 9.4). Perinatal deaths rates by Indigenous status are shown in figure 9.2.

Box 9.4 Perinatal death rate

A perinatal death is a fetal or neonatal death (boxes 9.2 and 9.3).

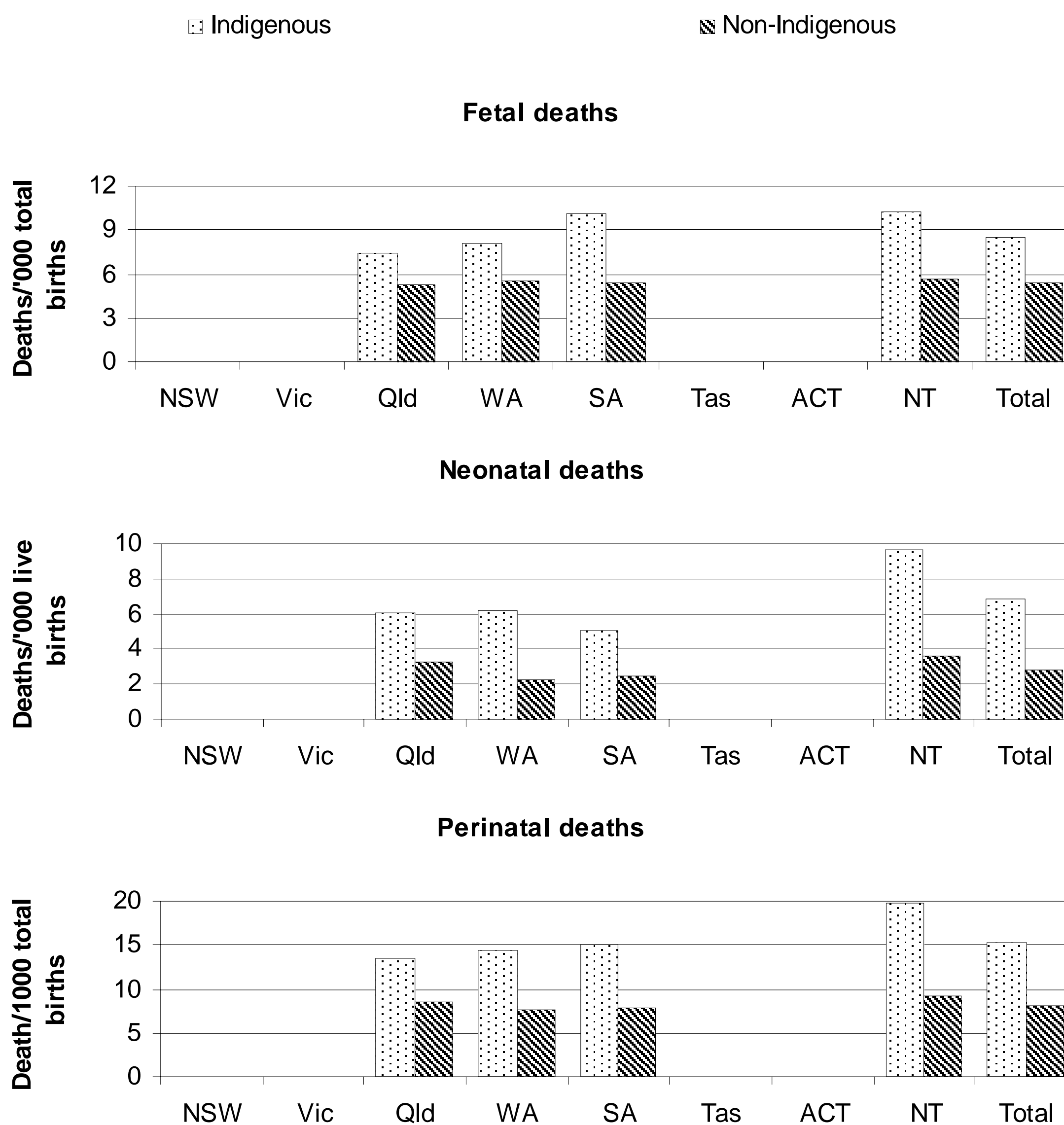
The 'perinatal death rate' is calculated as the number of perinatal deaths divided by the total number of births (live births registered and fetal deaths combined) in each jurisdiction. It is expressed per 1000 total births. This indicator is reported by the Indigenous status of the mother.

The caveats that apply to fetal and neonatal death rates also apply to perinatal death rates.

Fetal, neonatal and perinatal deaths data by Indigenous status are available for Queensland, WA, SA and the NT only. Data are for the period 1999–2003 combined. Data for other states and the ACT are not included due to small numbers or poor coverage rates (ABS 2004).[2] In those jurisdictions for which data are available, the fetal, neonatal and perinatal death rates for Indigenous people are higher than these death rates for non-Indigenous people (figure 9.2).

[2] The implied coverage of Indigenous deaths, for the period 1999 to 2003, ranges from 95 per cent in the NT, to 45 per cent and 43 per cent in NSW and Victoria respectively (SCRGSP 2005a).

Figure 9.2 **Fetal, neonatal and perinatal deaths, by Indigenous status, 1999–2003[a]**



[a] The total relates to those jurisdictions for which data are published.

Source: ABS Deaths, Australia (unpublished); table 9A.3; 2006 Report, p. 9.80, figure 9.27.

Future directions in performance reporting

Priorities for future reporting on public hospitals and maternity services include improving the comprehensiveness of reporting by filling in gaps in the performance indicator frameworks. Important gaps in reporting for public hospitals include indicators of equity of access to services for special needs groups (particularly

Indigenous people), indicators of continuity of care and indicators of sustainability. Gaps in the maternity services framework include equity of access, effectiveness of access, three aspects of quality — responsiveness, capability and continuity — and the effectiveness subdimension of sustainability.

The Steering Committee will improve the comprehensiveness of reporting on public hospital services for Indigenous people by drawing on work that the Office for Aboriginal and Torres Strait Islander Health is currently conducting. The Office has recently finalised the Aboriginal and Torres Strait Islander Health Performance Framework and is now identifying data sources for its performance indicators. Data will be published in late 2006. These data will be used to develop the 'equity of access by special needs groups' indicator for future reports.

Supporting tables

Supporting tables for data within this chapter are contained in the attachment to the compendium. These tables are identified in references throughout this chapter by an 'A' suffix (for example, table 9A.3 is table 3 in the public hospitals attachment). The tables included in the attachment are listed below.

Table 9A.1 Separations by hospital and by Indigenous status, 2003-04

Table 9A.2 Indicative estimates of separations per 1000 people, by reported Indigenous status (number)

Table 9A.3 Perinatal, neonatal and fetal deaths, by Indigenous status 1999–2003

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