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, 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 2007* (2007 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 2007 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 2007 Report, chapter 11).

[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).

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

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 for an admitted patient, 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). 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 5.1 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 (2006); NCCH (1998); NHDC (2001, 2003); 2007 Report, box 9.1, pp. 9.2-3.

Indigenous data in the public hospitals chapter

The public hospitals chapter in the 2007 Report contains the following data items on Indigenous people:

- number of separations in public and private hospitals, 2004-05
- separations in public and private hospitals as proportion of total separations, 2004-05
- separations in public and private hospitals as a proportion of separations in all hospitals, 2004-05
- separations in public hospitals as a proportion of separations in all hospitals, 2004-05
- separations per 1000 people, public hospitals, 2004-05
- fetal, neonatal and perinatal death rates, 2000–2004.

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 2007 Report, the compendium also notes where the original table, figure or text in the 2007 Report can be found. For example, where the compendium refers to '2007 Report, p. 9.15' this is page 15 of chapter 9 of the 2007 Report, and '2007 Report, table 9A.2' is attachment table 2 of attachment 9A of the 2007 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. The report prepared by the AIHW and endorsed by relevant Australian Health Ministers' Advisory Council committees titled *Improving the Data Quality of Indigenous Identification in Hospital Separations Data* recommends the following:

- Only data from Queensland, WA, SA and the NT should be used for analytical purposes (either at the individual or aggregate level).
- Analyses based on data for Queensland, WA, SA and the NT in aggregate are limited by jurisdictional differences in data quality and the data are not necessarily representative of the jurisdictions excluded.
- Caution should be exercised in using Queensland, WA, SA and the NT time series data for analysis (either individually or in aggregate). Changes in hospitalisation rates for Indigenous people may be a result of changes in the ascertainment of Indigenous status for Indigenous patients (AIHW 2005).

In 2004-05, separations for Indigenous people accounted for around 6.3 per cent of total separations and 10.2 per cent of separations in public hospitals in Queensland, WA, SA and the NT (table 9.1), but the Indigenous population made up only around 3.5 per cent of the population in these jurisdictions (table AA.3). Most Indigenous separations (91.6 per cent) in these jurisdictions 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 their lower use of private hospitals.

Table 9.1 **Separations, by Indigenous status and hospital sector, 2004-05** **a, b**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust*	*Total*[c]
Public hospital separations ('000)										
Indigenous	np	np	56.2	38.6	14.3	np	np	50.3	np	159.4
Non-Indigenous	np	np	664.4	344.7	342.2	np	np	25.5	np	1 376.7
Not reported	np	np	13.2	–	9.1	np	np	0.1	np	22.4
Total	np	np	733.8	383.3	365.6	np	np	75.9	np	1 558.5
Private hospital separations ('000)										
Indigenous	np	np	3.7	9.0	0.3	np	np	np	np	14.7
Non-Indigenous	np	np	513.0	299.7	208.6	np	np	np	np	1 021.3
Not reported	np	np	160.1	–	3.0	np	np	np	np	163.0
Total	np	np	676.8	308.7	211.8	np	np	np	np	1 197.4
Indigenous separations as proportion of total separations (%)										
Public hospitals	np	np	7.7	10.1	3.9	np	np	66.3	np	10.2
Private hospitals	np	np	0.6	2.9	0.1	np	np	np	np	1.2
All hospitals	np	np	4.2	6.9	2.5	np	np	np	np	6.3
Separations in public hospitals as a proportion of separations in all hospitals (%)										
Indigenous	np	np	93.8	81.1	98.3	np	np	np	np	91.6
Non-Indigenous	np	np	56.4	53.5	62.1	np	np	np	np	57.4

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 for Queensland, WA, SA and the NT are considered to be acceptable for the purpose of analysis (AIHW 2005). Nevertheless, data for these jurisdictions should be interpreted with caution as there are jurisdictional differences in data quality. In addition, these jurisdictions are not necessarily representative of the excluded jurisdictions. **c** The total rates include data only for Queensland, WA, SA, and the NT. – Nil or rounded to zero. **np** Not published.

Source: AIHW (2006); table 9A.1; 2007 Report, table 9.1, p. 9.12.

In 2004-05, on an age standardised basis, 907.0 public hospital separations (including same day separations) for Indigenous patients were reported per 1000 Indigenous people in Queensland, WA, SA and the NT (table 9.2). This rate was markedly higher than the corresponding rate for these jurisdictions' total population of 205.2 per 1000 (table 9.2). Incomplete identification of Indigenous people limits the validity of comparisons over time, as well as across jurisdictions.

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

	NSW	*Vic*	*Qld*[c]	*WA*[c]	*SA*[c]	*Tas*	*ACT*	*NT*[c]	*Aust*	*Total*[d]
2000-01										
Indigenous	np	np	671.6	852.2	772.6	np	np	1 031.6	np	np
Total population	np	np	195.5	199.7	228.8	np	np	370.9	np	np
2001-02										
Indigenous	np	np	676.5	752.7	743.6	np	np	1 129.6	np	np
Total population	np	np	192.5	190.7	229.7	np	np	394.3	np	np
2002-03										
Indigenous	np	np	685.2	809.4	788.1	np	np	1 223.3	np	np
Total population	np	np	189.4	195.4	231.0	np	np	422.5	np	np
2003-04										
Indigenous	np	np	710.9	789.3	853.9	np	np	1 286.2	np	np
Total population	np	np	189.3	191.0	235.9	np	np	428.9	np	np
2004-05										
Indigenous	np	np	733.6	821.5	822.2	np	np	1 441.0	np	907.0
Total population	np	np	188.1	195.2	225.3	np	np	456.2	np	205.2

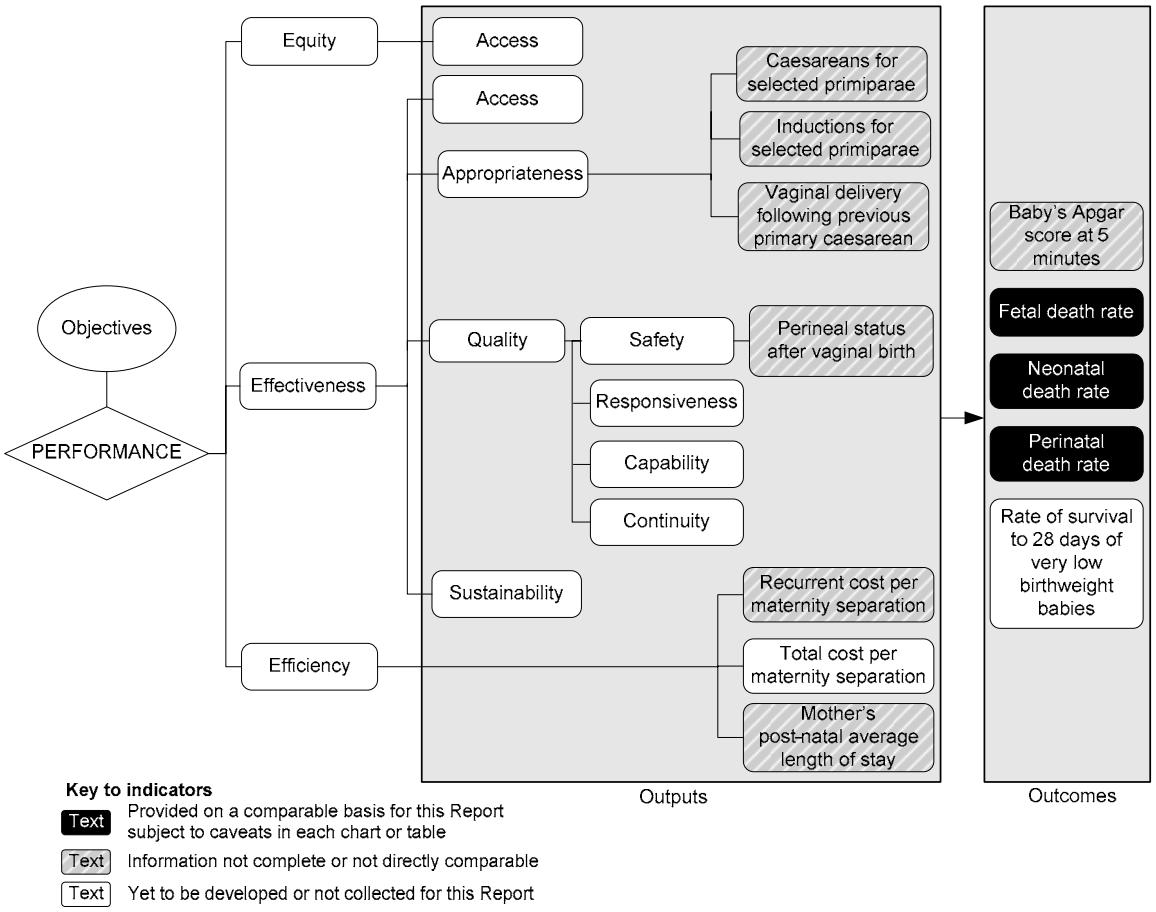
a The rates are directly age standardised to the Australian population at 30 June 2001. **b** Identification of Indigenous patients is not considered complete and completeness varies across jurisdictions and time. **c** The AIHW advised that only data for Queensland, WA, SA and the NT are of acceptable quality. Nevertheless, data for these jurisdictions should be interpreted with caution as there are jurisdictional differences in data quality and changes in hospitalisation rates for Indigenous people over time might be the result of improved identification. In addition, these jurisdictions are not necessarily representative of the excluded jurisdictions (AIHW 2005). **d** For 2004-05, total rates include data only for Queensland, WA, SA, and the NT. **np** Not published.

Source: AIHW (unpublished); table 9A.2; 2007 Report, table 9.2, p. 9.13.

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 2007 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 2007 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: 2007 Report, figure 9.20, p. 9.65.

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.

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Box 9.2 **(Continued)**

'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.

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 Indigenous status.

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 of the 2007 Report 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 Indigenous status.

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).

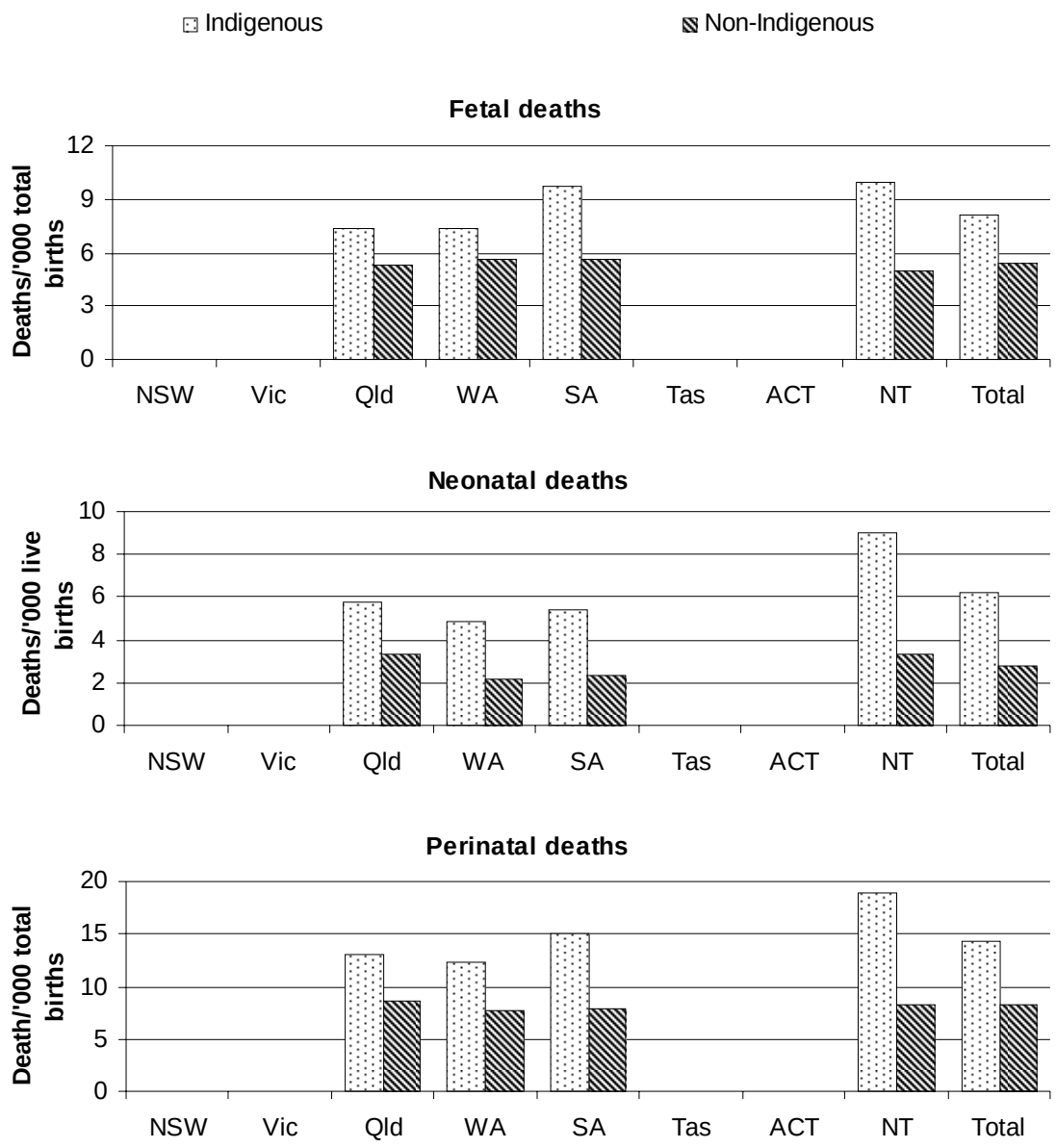
The 'perinatal death rate' is calculated as the number of perinatal deaths divided by the total number of births (live births registered and fetal deaths combined) in each jurisdiction. It is expressed per 1000 total births. This indicator is reported by Indigenous status.

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 2000–2004 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 2005).

Figure 9.2 **Fetal, neonatal and perinatal deaths, by Indigenous status, 2000–2004[a]**



a The total relates to those jurisdictions for which data are published. Data are not available for other jurisdictions.

Source: ABS Deaths, Australia (unpublished); table 9A.3; 2007 Report, figure 9.29, p. 9.81.

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), and indicators of continuity of care. 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.

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.

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