

---

# 11 Primary and community health

The primary and community health sector is the part of the healthcare system most frequently used by Australians. It is important in preventative health care and in the detection and management of illness and injury, through direct service provision and referral to acute (hospital) or other healthcare services as appropriate.

Primary and community healthcare services are delivered by a range of health and allied health professionals in various private, not-for-profit and government service settings. Those funded largely by government include general practice, community health services, the PBS and public dental services. Government also provides some funding for the use of private dental and allied health services by particular populations, for example people with long-term health conditions and/or mental health problems (through Medicare), and through the private health insurance rebate.

This chapter focuses on general practice, primary healthcare services for Indigenous people, public dental services, drug and alcohol treatment, maternal and child health, the Pharmaceutical Benefits Scheme (PBS) and a range of other community health services.

## **Indigenous data in the primary and community health chapter**

The primary and community health chapter in the *Report on Government Services 2009* (2009 Report) contains the following information on Indigenous people: was it intended that the 2<sup>nd</sup> and 3<sup>rd</sup> dot points have the attachment tables in brackets but none of the others do

- Indigenous primary healthcare services for which service activity reporting (SAR) data are reported (number), 2002-03 to 2006-07
- Services and episodes of healthcare by services for which service activity reporting (SAR) data are reported, by remoteness category (number) (table 11A.7)
- Proportion of services for which service activity reporting (SAR) data are reported that undertook selected health related activities, 2006-07 (per cent) (table 11A.8)

- 
- full time equivalent (FTE) health staff employed by services for which service activity reporting (SAR) data are reported, as at 30 June 2007 (number)
  - voluntary annual health assessments for older people by Indigenous status, 2007-08
  - older Indigenous people who received an annual health assessment, 2003-04 to 2007-08
  - Indigenous people who received a voluntary health check or assessment, by age
  - separations of Indigenous people for vaccine preventable conditions, 2006-07
  - separations of Indigenous people for selected potentially preventable acute conditions, 2006-07
  - separations for selected potentially preventable chronic conditions, 2006-07
  - ratio of separations for Indigenous males to all males, 2006-07
  - ratio of separations for Indigenous females to all females, 2006-07.

### *Attachment tables*

Attachment tables for data within the primary and community health chapter of this compendium are contained in attachment 11A of the compendium. These tables are identified in references throughout this chapter by an 'A' suffix (for example, table 11A.3 is table 3 in the primary and community health attachment). As the data are directly sourced from the 2009 Report, the compendium also notes where the original table, figure or text in the 2009 Report can be found. For example, where the compendium refers to '2009 Report, p. 11.15' this is page 15 of chapter 11 of the 2009 Report, and '2009 Report, table 11A.2' is attachment table 2 of attachment 11A of the 2009 Report.

## **Indigenous primary and community healthcare services**

Indigenous Australians use a range of primary health care services, including private general practitioners and Aboriginal and Torres Strait Islander Community Controlled Primary Health Care Services. There are Aboriginal and Torres Strait Islander Community Controlled Primary Health Care Services in all jurisdictions. These services are planned and governed by local Indigenous communities and aim to deliver holistic and culturally appropriate health and health-related services. Funding is provided by Australian, State and Territory governments.

Additional health programs for Indigenous Australians are funded by a number of jurisdictions. In 2007-08, these programs included services such as health

information, promotion, education and counselling; alcohol, tobacco and other drug services; sexual health services; allied health services; disease/illness prevention; and improvements to nutrition standards (tables 11A.15–11A.23).

Data on Aboriginal and Torres Strait Islander primary healthcare services that receive funding from the Australian Government are collected through service activity reporting (SAR) questionnaires. Many of these services receive additional funding from State and Territory governments and other sources. The SAR data reported here represent the health related activities, episodes and workforce funded from all sources.

For 2006-07, SAR data are reported for 146 Indigenous primary healthcare services (table 11A.1). Of these services, 54 (37.0 per cent) were located in remote or very remote areas (table 11A.2). They provided a wide range of primary healthcare services, including the diagnosis and treatment of illness and disease, the management of chronic illness, immunisations and transportation to medical appointments (table 11A.3). An episode of healthcare is defined in the SAR data collection as contact between an individual client and staff of a service to provide healthcare. Over 1.6 million episodes of healthcare were provided by participating services in 2006-07 (table 1). Of these, around 582 000 (35.2 per cent) were in remote or very remote areas (table 11A.2).

**Table 11.1 Estimated episodes of healthcare for Indigenous people by services for which SAR data are reported ('000)<sup>a</sup>**

	<i>NSW and ACT<sup>b</sup></i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>NT</i>	<i>Aust</i>
2002-03	423	130	234	337	140	20	216	1499
2003-04	430	169	267	302	142	22	280	1612
2004-05	415	151	254	274	145	23	323	1585
2005-06	505	179	240	281	101	29	347	1681
2006-07 <sup>c</sup>	440	177	253	284	114	31	354	1652

<sup>a</sup> An episode of healthcare involves contact between an individual client and service staff to provide healthcare. Group work is not included. Transport is included only if it involves provision of healthcare and/or information by staff. Outreach provision, for example episodes at outstation visits, park clinics and satellite clinics, is included. Episodes of health care delivered over the phone are included. <sup>b</sup> Data for NSW and the ACT have been combined for confidentiality purposes. <sup>c</sup> 2006-07 data are preliminary results.

Source: DoHA (unpublished), derived from the Service Activity Reporting data collection; 2009 Report, table 11.5, p. 11.12.

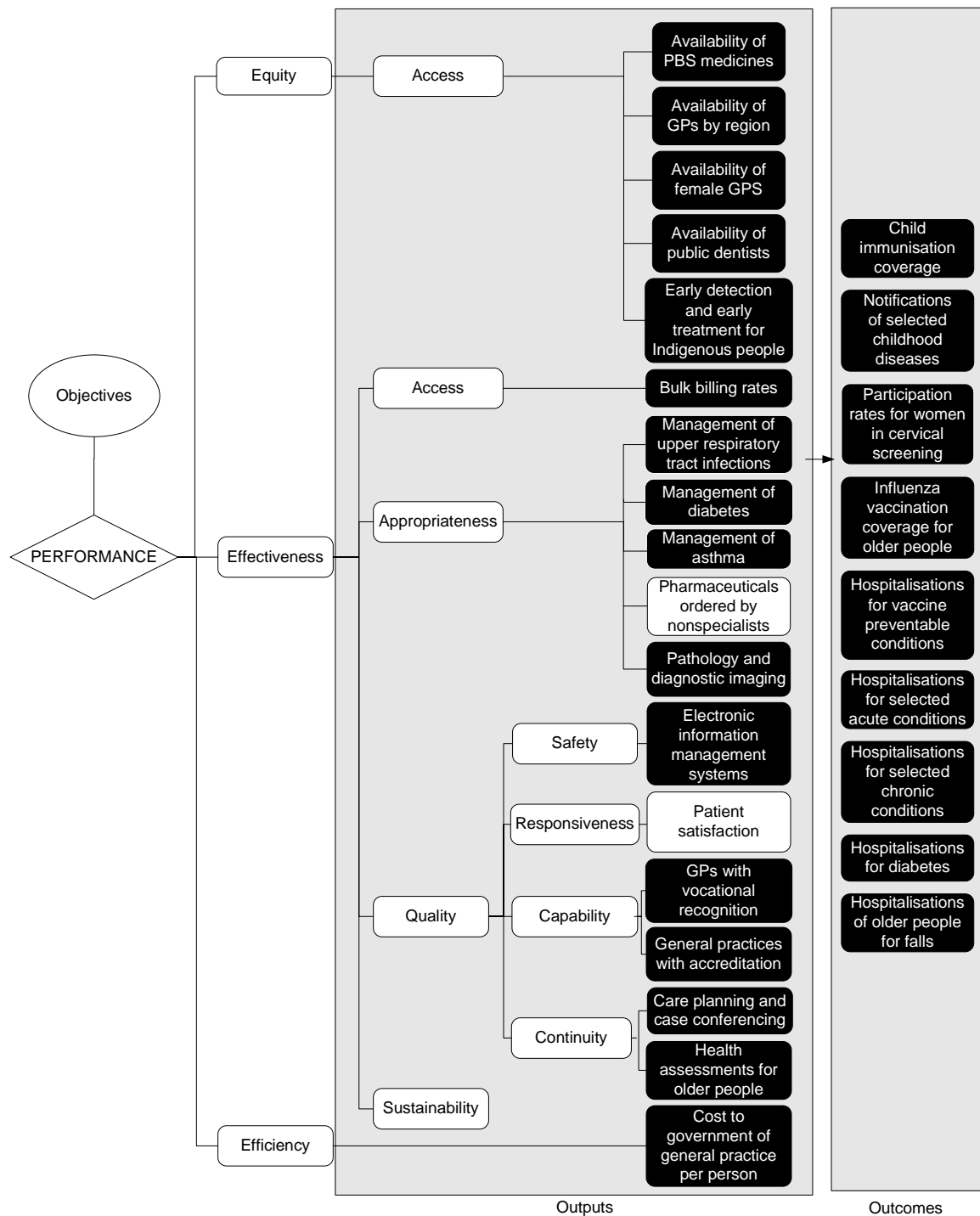
## Framework of performance indicators

Data for Indigenous people are reported for a subset of the performance indicators for primary and community health in the 2009 Report. It is important to interpret

---

these data in the context of the broader performance indicator framework outlined in figure 11.1. The performance indicator framework shows which data are comparable in the 2009 Report. For data that are not considered directly comparable, the text includes relevant caveats and supporting commentary.

Figure 11.1 Performance indicators for primary and community health



**Key to indicators**

- Text** Data for these indicators comparable, subject to caveats to each chart or table
- Text** Data for these indicators not complete or not directly comparable
- Text** These indicators yet to be developed or data not collected for this Report

Source: 2009 Report, figure 11.2, p. 11.14.

---

## Outputs

Outputs are the actual services delivered (while outcomes are the impact of these services on the status of an individual or group) (see 2009 Report, chapter 1, section 1.5).

## Equity

For the purposes of this Report, equity is defined in terms of adequate access to government services for all Australians. Access to primary and community health services may be affected through factors such as disability, socioeconomic circumstance, age, geographic distance, cultural issues and English language proficiency (see chapter 1). Such issues have contributed to the generally poor health status of Indigenous people relative to other Australians (see the 'Health Preface' and SCRGSP 2007).

### Access

#### *Early detection and early treatment for Indigenous people*

'Early detection and early treatment for Indigenous people' is an indicator of governments' objective to provide equitable access to primary and community healthcare services for Indigenous people (box 11.1).

The high prevalence of preventable and/or treatable health conditions in the Indigenous population is strongly associated with relatively poor health outcomes for Indigenous people (AIHW 2007; SCRGSP 2007). Early detection and early treatment refers to the identification of individuals who are at high risk for, or in the early stages of, such conditions. Early detection and early treatment services provide opportunities for timely prevention and intervention measures, and their availability and uptake is understood to be a significant determinant of people's health.

Voluntary health assessments and checks are Medicare Benefit Schedule (MBS) items that allow GPs to undertake comprehensive examinations of patient health, including physical, psychological and social functioning. They are available for older Australians as well as for Indigenous people of all ages, as the prevalence of preventable and/or treatable conditions is high in both population groups.

---

### Box 11.1 **Early detection and early treatment for Indigenous people**

'Early detection and early treatment for Indigenous people' is measured in four ways:

- Older people who received a voluntary health assessment by Indigenous status
- Older Indigenous people who received a voluntary health assessment, time series
- Indigenous people who received a voluntary health assessment or check by age group
- Aboriginal and Torres Strait Islander primary healthcare services that provided early detection services.

'Older people who received a voluntary health assessment by Indigenous status' is defined as the proportion of older people who received a voluntary health assessment by Indigenous status. A reduction in the gap between the proportion of all older people and older Indigenous people that received a health assessment indicates improved access to early detection and early treatment services for Indigenous people.

'Older Indigenous people who received a voluntary health assessment, time series' is defined as the proportion of older Indigenous people who received a voluntary health assessment in successive years of a five year period. An increase is desirable as it indicates improved access to these services.

'Indigenous people who received a voluntary health assessment or check by age group' is defined as the proportion of Indigenous people who received a voluntary health assessment/check, in each of the three age groups for which they are available. A reduction in the gap between the proportion of Indigenous people in different age groups that received a health assessment/check may indicate more equitable access to early detection and treatment services within the Indigenous population.

'Aboriginal and Torres Strait Islander primary healthcare services that provided early detection services' is defined as the proportion of Aboriginal and Torres Strait Islander primary healthcare services that included early detection activities in the services provided. An increase is desirable as it indicates improved access to early detection and treatment services for Indigenous Australians.

This indicator provides no information about early detection and early treatment services that are not provided under Medicare. Such services are provided by salaried GPs in community health settings, hospitals and Indigenous-specific primary health care services, particularly in rural and remote areas. Accordingly, this indicator understates the proportion of people who received early detection and early treatment services.

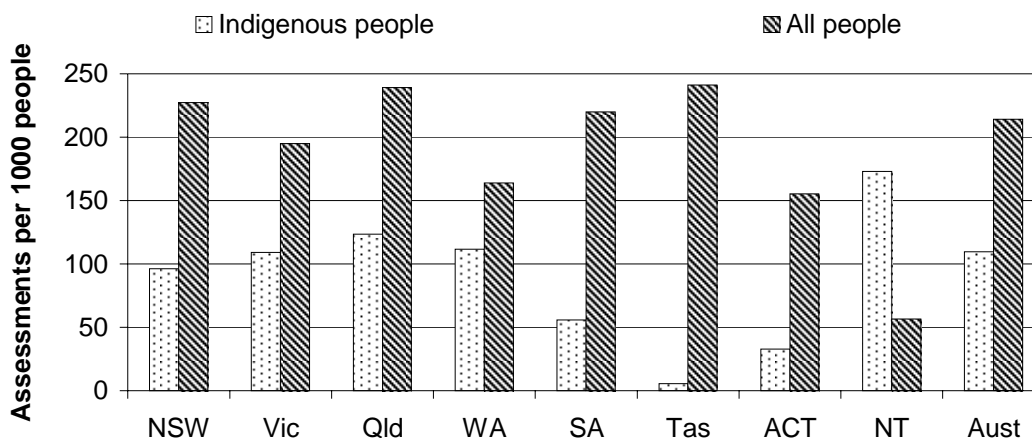
Data for this indicator are comparable.

For this indicator, older people are defined as non-Indigenous people aged 75 years or over and Indigenous people aged 55 years or over, excluding hospital inpatients and people living in aged care facilities. The larger age range for Indigenous people recognises that they typically face increased health risks at younger ages than most

other groups in the population. It also broadly reflects the difference in average life expectancy between the Indigenous and non-Indigenous populations (see the 'Health preface').

Figure 11.2 shows that in 2007-08 the proportion of Indigenous older people who received an annual health assessment was considerably lower than the proportion of all older people who received an annual health assessment. This suggests that access to early detection and early treatment services may not be equitable.

**Figure 11.2 Older people who received an annual health assessment by Indigenous status, 2007-08<sup>a, b</sup>**



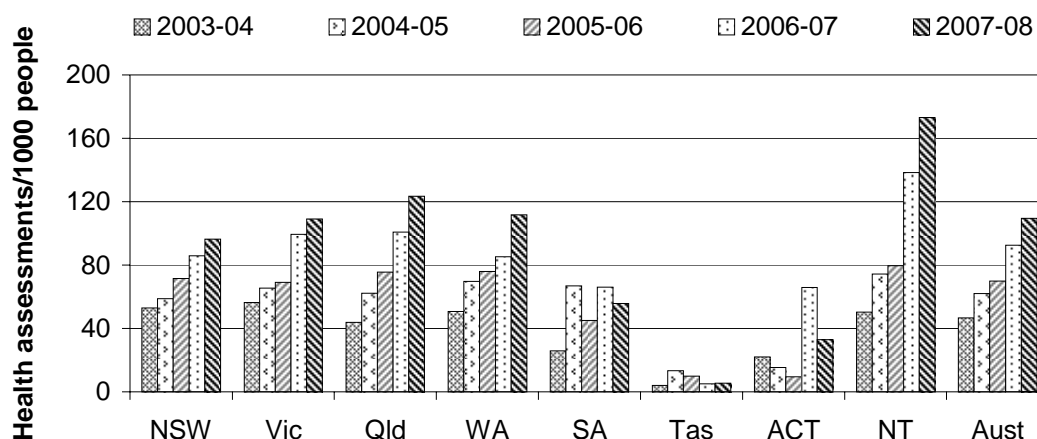
<sup>a</sup> Older people are defined as Indigenous people aged 55 years or over and non-Indigenous people aged 75 years or over. <sup>b</sup> Indigenous status is determined by self-identification. Indigenous people aged 75 years or over may have received a health assessment under the 'all older people' MBS items. This is considered unlikely to affect overall proportions significantly, due to the relatively low average life expectancy of Indigenous people.

Source: Medicare Australia (unpublished), derived from *Medicare Benefits Schedule Item Statistics Reports*, available: [http://www.medicareaustralia.gov.au/statistics/dyn\\_mbs/forms/mbs\\_tab4.shtml](http://www.medicareaustralia.gov.au/statistics/dyn_mbs/forms/mbs_tab4.shtml) (accessed 9 October 2008); ABS 2004, *Experimental estimates and projections, Aboriginal and Torres Strait Islander Australians*, Cat. no. 3238.0; ABS 2008, *Australian demographic statistics March quarter 2008*, Cat. no. 3101.0; ABS (unpublished), derived from *2006 Census of Population and Housing*; table 11A.5; 2009 Report, figure 11.8, p. 11.23.

Figure 11.3 shows that the proportion of older Indigenous people who received an annual health assessment steadily increased in most jurisdictions between 2003-04 and 2007-08. This indicates that access to early detection and early treatment services for this population has improved in these jurisdictions.



Figure 11.3 Older Indigenous people who received an annual health assessment<sup>a</sup>



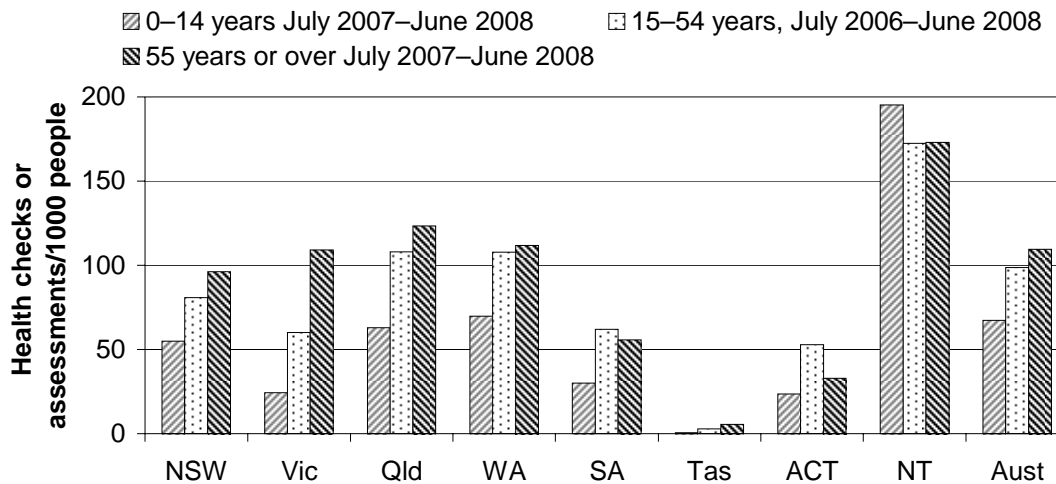
<sup>a</sup> Indigenous status is determined by self-identification. Indigenous people aged 75 years or over may have received a health assessment under the 'all older people' MBS items. This is considered unlikely to significantly affect overall proportions due to the relatively low average life expectancy of Indigenous people.

Source: Medicare Australia (unpublished), derived from *Medicare Benefits Schedule Item Statistics Reports*, available: [http://www.medicareaustralia.gov.au/statistics/dyn\\_mbs/forms/mbs\\_tab4.shtml](http://www.medicareaustralia.gov.au/statistics/dyn_mbs/forms/mbs_tab4.shtml) (accessed 9 October 2008); ABS 2004, *Experimental estimates and projections, Aboriginal and Torres Strait Islander Australians*, Cat. no. 3238.0; ABS 2008, *Australian demographic statistics March quarter 2008*, Cat. no. 3101.0; ABS (unpublished), derived from *2006 Census of Population and Housing*, table 11A.6; 2009 Report, figure 11.9, p. 11.24.

Health check MBS items were introduced for Indigenous people aged 15–54 years in May 2004, and Indigenous children aged 0–14 years in May 2006. Health checks are available annually for children aged 0–14 years, and biennially for 15–54 year olds.

Figure 11.4 shows that the proportion of the eligible Indigenous population that received a health assessment or check was highest for older people and lowest for children aged 0–14 years in most jurisdictions. This may in part reflect differences in how long the items have been available, as factors such as awareness and administrative requirements affect the uptake of new MBS items (AIHW 2007).

**Figure 11.4 Indigenous people who received a health check or assessment by age<sup>a, b</sup>**



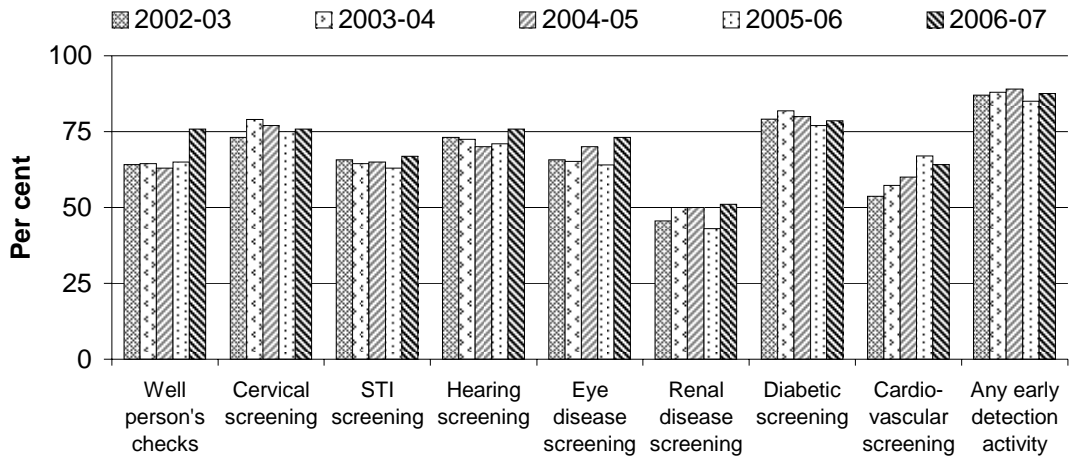
<sup>a</sup> Indigenous status is determined by self-identification. Indigenous people aged 75 years or over may have received a health assessment under the 'all older people' MBS items. This is considered unlikely to significantly affect overall proportions due to the relatively low average life expectancy of Indigenous people.

<sup>b</sup> Health checks for 0-14 year olds, and health assessments for those aged 55 years or over, are available annually. Data for these age groups are for the period 1 July 2007 to 30 June 2008. Health checks for 15-54 year olds are available biennially, and these data are for the period 1 July 2006 to 30 June 2008.

Source: Medicare Australia (unpublished), derived from *Medicare Benefits Schedule Item Statistics Reports*, available: [http://www.medicareaustralia.gov.au/statistics/dyn\\_mbs/forms/mbs\\_tab4.shtml](http://www.medicareaustralia.gov.au/statistics/dyn_mbs/forms/mbs_tab4.shtml) (accessed 9 October 2008); ABS 2004, *Experimental estimates and projections, Aboriginal and Torres Strait Islander Australians*, Cat. no. 3238.0; ABS 2008, *Australian demographic statistics March quarter 2008*, Cat. no. 3101.0; ABS (unpublished), derived from *2006 Census of Population and Housing*; table 11A.7; 2009 Report, figure 11.10, p. 11.25.

Figure 11.5 shows the proportion of Indigenous primary healthcare services for which SAR data are reported that provided various early detection services over the five year period to 2006-07.

**Figure 11.5 Indigenous primary healthcare services for which SAR data are reported that provided early detection services**



Source: DoHA (unpublished), derived from the Service Activity Reporting data collection (SAR); table 11A.8; 2009 Report, figure 11.11, p. 11.26.

### *Child immunisation coverage*

Many providers deliver child immunisation services. Data on providers of valid vaccinations supplied to children under 7 years of age are shown in table 11.2.

**Table 11.2 Valid vaccinations supplied to children under 7 years of age, by provider type, 1996–2008 (per cent)<sup>a, b</sup>**

<i>Provider</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT<sup>c</sup></i>	<i>NT</i>	<i>Aust</i>
GP	84.0	52.9	82.6	63.8	68.8	86.6	40.9	3.4	70.9
Council	5.8	45.7	7.2	6.6	18.4	12.6	na	na	17.1
State or Territory health department	–	na	–	6.1	0.1	0.1	20.8	0.3	0.9
Flying doctor service	–	na	0.3	–	0.1	na	na	na	0.1
Public hospital	2.1	0.5	3.0	5.4	2.8	0.2	0.8	7.5	2.3
Private hospital	0.1	–	–	–	na	–	–	0.9	0.1
Indigenous health service	0.5	0.1	0.7	0.6	0.5	–	0.2	9.3	0.6
Indigenous health worker	–	na	0.5	na	0.1	na	na	0.2	0.1
Community health centre	7.4	0.8	5.7	17.6	9.3	0.6	37.3	78.3	8.0
Community nurse	na	–	na	na	na	na	–	na	–
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

<sup>a</sup> 1 January 1996 to 30 June 2008. Data relate to the State or Territory in which the immunisation provider was located. <sup>b</sup> A valid vaccination is a National Health and Medical Research Council's Australian Standard Vaccination Schedule vaccination administered to a child under the age of 7 years. <sup>c</sup> Due to changes in provider classification in the ACT between 1996 and 2008, some vaccinations undertaken by ACT Health's Maternal and Child Health nurses are reported under 'State or Territory health departments' and some are reported under 'Community health centre'. The total proportion of vaccinations provided by ACT Health during this period was 58.1 per cent. **na** Not available. – Nil or rounded to zero.

*Source:* DoHA (unpublished), derived from the Australian Childhood Immunisation Register (ACIR); table 11A.7; 2009 Report, table 11.8, p. 11.50.

### *Potentially preventable hospitalisations*

The following outcome indicators relate to potentially preventable hospitalisations for a range of conditions. The first three indicators — hospitalisations for vaccine preventable conditions (box 11.3), selected acute conditions (box 11.4) and selected chronic conditions (box 11.5) — were developed by the National Health Performance Committee, based on empirical research (box 11.2). The other outcome indicator in this category relates to hospitalisations for diabetes (box 11.6).

---

**Box 11.2 Potentially preventable hospitalisation indicators**

Potentially preventable hospitalisations refer to hospital admissions that may be avoided by appropriate management in the primary healthcare sector and/or the broader community. They include vaccine preventable, acute and chronic conditions, defined according to the Victorian Ambulatory Care Sensitive Conditions Study (DHS 2002). This study built on research into ambulatory care sensitive conditions (for example, Billings, Anderson and Newman 1996; Bindman et al. 1995; Weissman, Gatsonis and Epstein 1992) that had recently been the subject of systematic review and empirical analysis.

These studies show that the availability of non-hospital care explains a significant proportion of the variation between geographic areas in hospitalisation rates for the specified conditions. Other explanations for this variation include variation in the underlying prevalence of the conditions, clinical coding standards and the likelihood that a patient will be treated as an outpatient rather than an admitted patient. Potentially preventable hospitalisations will never be entirely eliminated, but the variation across geographic areas demonstrates considerable potential for strengthening the effectiveness of non-hospital care.

*Source:* NHPC (2004).

Data are reported against these indicators for Indigenous Australians as well as for all Australians. The completeness of Indigenous identification in hospital admitted patient data varies across states and territories. The AIHW (2005) report *Improving the Quality of Indigenous Identification in Hospital Separations Data* found that Indigenous admitted patient data were of acceptable quality for analytical purposes only for Queensland, WA, SA, and public hospitals in the NT. Following new assessments of the quality of Indigenous identification, the National Health Information Management Principal Committee (NHIMPC, now the National e-Health and Information Principal Committee [NEHIPC]) has approved Indigenous admitted patient data for NSW and Victoria as acceptable in quality for analytical purposes, from the 2004-05 reference year. Data are not published for Tasmania and the ACT because the quality of Indigenous identification is not considered to be acceptable for the purpose of analysis.

Reported data are not necessarily representative of other jurisdictions. Indigenous patients are underidentified, to an extent that varies across jurisdictions. Because of improvements in data quality over time, caution also should be used in time series analysis.

---

### *Vaccine preventable hospitalisations*

'Vaccine preventable hospitalisations' is an indicator of governments' objective to reduce hospitalisations for vaccine preventable conditions (box 11.3). The effectiveness of primary and community healthcare has a significant influence on the rates of hospitalisation for vaccine preventable conditions. This influence occurs mainly through the provision of vaccinations and the encouragement of high rates of vaccination coverage for target populations. Effective treatment of such conditions by primary health providers may also reduce hospitalisations.

#### **Box 11.3 Vaccine preventable hospitalisations**

'Vaccine preventable hospitalisations' is defined as the number of hospital separations for influenza and pneumonia, and other vaccine preventable conditions, per 1000 people. A reduction in hospital separation rates may indicate improvements in the effectiveness of the vaccination program.

Data are reported for Indigenous people as well as for all people. Adjustments are made to account for differences in the age structures of these populations across states and territories. A reduction in the gap in hospital separation rates between Indigenous and all people may indicate greater equity of access to primary healthcare services.

Factors outside the control of the primary healthcare sector also influence the rates of hospitalisation for vaccine preventable conditions; for example, the number and virulence of influenza strains from year to year.

Data for this indicator are comparable.

The age standardised hospital separation rate of Indigenous people for all vaccine preventable conditions was 2.7 per 1000 Indigenous people in 2006-07 for NSW, Victoria, Queensland, WA, SA and the NT combined. The quality of Indigenous identification is considered acceptable for the purposes of analysis only for these jurisdictions. Around 74 per cent of vaccine preventable separations for Indigenous people were accounted for by influenza and pneumonia in 2006-07 (table 11.3).

**Table 11.3 Separations of Indigenous people for vaccine preventable conditions, per 1000 Indigenous people, 2006-07<sup>a, b</sup>**

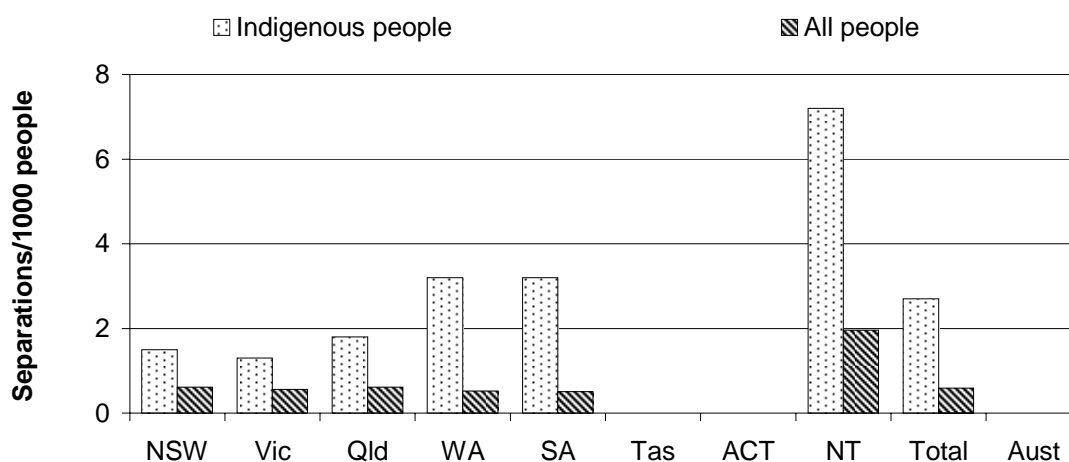
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT <sup>c</sup>	Total <sup>d</sup>	Aust
Influenza and pneumonia	1.1	0.9	1.3	2.9	2.1	np	np	4.8	2.0	np
Other conditions	0.4	0.4	0.4	0.3	1.0	np	np	2.4	0.7	np
<b>Total<sup>e</sup></b>	<b>1.5</b>	<b>1.3</b>	<b>1.8</b>	<b>3.2</b>	<b>3.2</b>	<b>np</b>	<b>np</b>	<b>7.2</b>	<b>2.7</b>	<b>np</b>

<sup>a</sup> Separation rates are directly age standardised to the Australian population at 30 June 2001. <sup>b</sup> Caution should be used in the interpretation of these data because of jurisdictional differences in data quality. Published data are not necessarily representative of Tasmania and the ACT. <sup>c</sup> NT data are for public hospitals only. <sup>d</sup> Total comprises NSW, Victoria, Queensland, WA, SA and the NT. Data are not published for Tasmania and the ACT because the quality of Indigenous identification is not considered acceptable for purposes of analysis. <sup>e</sup> Totals may not equal the sum of individual conditions due to rounding. np not published.

Source: AIHW (unpublished), derived from the National Hospital Morbidity Database; table 11A.10; 2009 Report, table 11.8, p. 11.60.

The age standardised hospital separation rate of Indigenous people for vaccine preventable conditions was higher than that for all people in 2006-07 in all jurisdictions for which data were published (figure 11.6).

**Figure 11.6 Separations for vaccine preventable conditions, 2006-07<sup>a, b, c, d, e</sup>**



<sup>a</sup> Separation rates are directly age standardised to the Australian population at 30 June 2001. <sup>b</sup> Caution should be used in the interpretation of these data because of jurisdictional differences in data quality. Published data are not necessarily representative of Tasmania and the ACT. <sup>c</sup> Indigenous separation rates are based on state of hospitalisation while all person rates are based on state of usual residence. <sup>d</sup> NT data for Indigenous people are for public hospitals only. <sup>e</sup> Total comprises NSW, Victoria, Queensland, WA, SA and the NT. Data are not published for Tasmania and the ACT because the quality of Indigenous identification is not considered acceptable for purposes of analysis.

Source: AIHW (2008), *Australian Hospital Statistics 2006-07*, Cat. no. HSE 55; AIHW (unpublished), derived from the National Hospital Morbidity Database; table 11A.10; 2009 Report, figure 11.34, p. 11.61.

---

Age standardised hospital separation rate ratios for infectious pneumonia illustrate differences between the rates of hospital admissions for Indigenous people and those for all Australians, taking into account differences in the age structures of the populations. Rate ratios close to one indicate that Indigenous people have similar separation rates to all people, while higher rate ratios indicate relative disadvantage. For both males and females there was a marked difference in 2006-07 between the separation rates for Indigenous people and those for the total population for infectious pneumonia diagnoses. For NSW, Victoria, Queensland, WA, SA and the NT combined, the separation rate for Indigenous males was higher than that for all Australian males, and the separation rate for Indigenous females was higher than the rate for all females (tables 11A.11 and 11A.12).

### *Hospitalisations for selected acute conditions*

‘Hospitalisations for selected acute conditions’ is an indicator of governments’ objective to reduce hospitalisations due to acute conditions through the delivery of effective primary healthcare services (box 11.4).

#### **Box 11.4 Hospitalisations for selected acute conditions**

‘Hospitalisations for selected acute conditions’ is defined as the number of hospital separations for the following selected acute conditions per 1000 people: dehydration and gastroenteritis; pyelonephritis (kidney inflammation caused by bacterial infection); perforated/bleeding ulcer; cellulitis; pelvic inflammatory disease; ear, nose and throat infections; dental conditions; appendicitis; convulsions and epilepsy; and gangrene.

A reduction in hospitalisation separation rates may indicate improvements in the effectiveness of primary and community healthcare providers’ treatment of these conditions.

The indicator is reported for Indigenous people as well as for all people. Adjustments are made to account for differences in the age structures of these populations across states and territories. A reduction in the gap in hospital separation rates between Indigenous and all people may indicate greater equity of access to primary healthcare services.

Factors outside the control of the primary healthcare sector also influence the rates of hospitalisation, for example, the underlying prevalence of the conditions. Public health measures not covered in this chapter may also influence hospitalisation rates.

Data for this indicator are comparable.

The age standardised hospital separation rate of Indigenous people for all potentially preventable acute conditions was 31.1 per 1000 Indigenous people in 2006-07 for NSW, Victoria, Queensland, WA, SA and the NT combined. Over half



of potentially preventable acute separations for Indigenous people were accounted for by convulsions and epilepsy, pyelonephritis, and cellulitis in 2006-07 (table 11.4).

**Table 11.4 Separations of Indigenous people for potentially preventable acute conditions, per 1000 Indigenous people, 2006-07<sup>a, b</sup>**

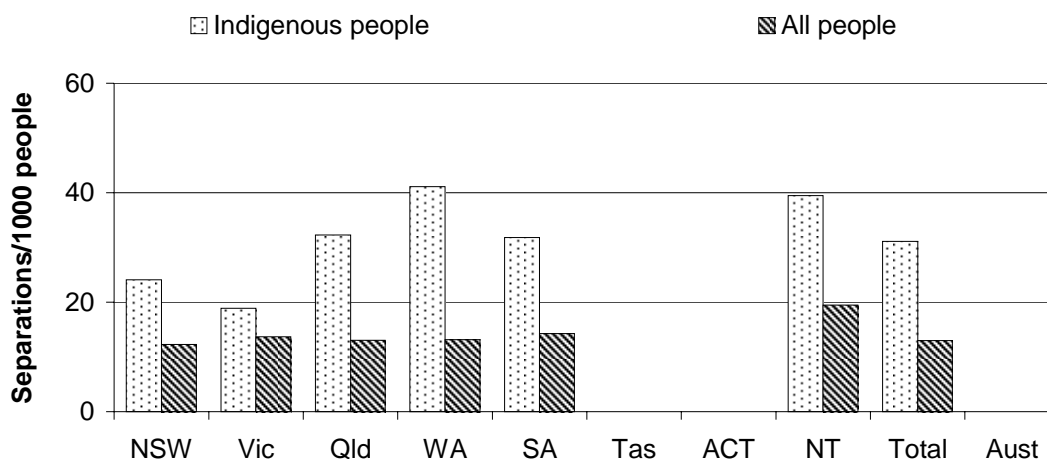
	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT<sup>c</sup></i>	<i>Total<sup>d</sup></i>	<i>Aust</i>
Appendicitis	0.2	0.2	0.3	0.4	0.2	np	np	0.4	0.3	np
Cellulitis	3.5	2.1	5.4	6.0	4.4	np	np	7.1	4.8	np
Convulsions and epilepsy	6.1	4.7	6.5	10.4	8.0	np	np	10.4	7.4	np
Dehydration and gastroenteritis	3.1	2.6	4.4	3.6	3.9	np	np	3.3	3.6	np
Dental conditions	2.4	2.9	3.2	3.8	4.4	np	np	3.4	3.1	np
Ear, nose and throat infections	2.9	1.7	2.9	4.0	3.8	np	np	3.5	3.1	np
Gangrene	0.3	0.3	1.1	2.7	0.8	np	np	1.8	1.1	np
Pelvic inflammatory disease	0.4	0.2	0.5	0.9	0.8	np	np	1.3	0.6	np
Perforated/bleeding ulcer	0.6	0.1	0.4	0.5	0.5	np	np	0.4	0.5	np
Pyelonephritis <sup>e</sup>	4.6	4.0	7.7	8.9	5.2	np	np	7.9	6.5	np
<b>Total<sup>f</sup></b>	<b>24.1</b>	<b>18.9</b>	<b>32.3</b>	<b>41.1</b>	<b>31.8</b>	<b>np</b>	<b>np</b>	<b>39.5</b>	<b>31.1</b>	<b>np</b>

<sup>a</sup> Separation rates are directly age standardised to the Australian population at 30 June 2001. <sup>b</sup> Caution should be used in the interpretation of these data because of jurisdictional differences in data quality. Published data are not necessarily representative of Tasmania and the ACT. <sup>c</sup> NT data are for public hospitals only. <sup>d</sup> Total comprises NSW, Victoria, Queensland, WA, SA and the NT. Data are not published for Tasmania and the ACT because the quality of Indigenous identification is not considered acceptable for purposes of analysis. <sup>e</sup> Kidney inflammation caused by bacterial infection. <sup>f</sup> Totals may not equal the sum of individual conditions due to rounding. **np** not published.

Source: AIHW (unpublished), derived from the National Hospital Morbidity Database; table 11A.11; 2009 Report, table 11.10, p. 11.63.

The age standardised hospital separation rate of Indigenous people for all potentially preventable acute conditions was higher than that for all people in 2006-07 in all jurisdictions for which data were published (figure 11.7).

Figure 11.7 **Separations for potentially preventable acute conditions, 2006-07<sup>a, b, c, d, e</sup>**



<sup>a</sup> Separation rates are directly age standardised to the Australian population at 30 June 2001. <sup>b</sup> Caution should be used in the interpretation of these data because of jurisdictional differences in data quality. Published data are not necessarily representative of Tasmania and the ACT. <sup>c</sup> Indigenous separation rates are based on state of hospitalisation while all person rates are based on state of usual residence. <sup>d</sup> NT data for Indigenous people are for public hospitals only. <sup>e</sup> Total comprises NSW, Victoria, Queensland, WA, SA and the NT. Data are not published for Tasmania and the ACT because the quality of Indigenous identification is not considered acceptable for purposes of analysis.

Source: AIHW (2008), *Australian Hospital Statistics 2006-07*, Cat. no. HSE 55; AIHW (unpublished), derived from the National Hospital Morbidity Database; table 11A.11; 2009 Report, figure 11.35, p. 11.64.

### *Hospitalisations for selected chronic conditions*

‘Hospitalisations for selected chronic conditions’ is an indicator of governments’ objective to reduce hospitalisations due to selected chronic conditions through delivery of effective primary and community healthcare services (box 11.5).

#### **Box 11.5 Hospitalisations for selected chronic conditions**

‘Hospitalisations for selected chronic conditions’ is defined as the number of hospital separations for the following selected chronic conditions per 1000 people: asthma; congestive cardiac failure; diabetes complications; chronic obstructive pulmonary disease; angina; iron deficiency anaemia; hypertension; nutritional deficiencies; and rheumatic heart disease. A reduction in hospitalisation separation rates may indicate improvements in the effectiveness of primary and community healthcare providers’ treatment of these conditions.

(Continued on next page)

---

**Box 11.5 (Continued)**

This indicator is reported for Indigenous people as well as for all people. Adjustments are made to account for differences in the age structures of these populations across states and territories. A reduction in the gap in hospital separation rates between Indigenous and all people may indicate greater equity of access to primary healthcare services.

Factors outside the control of the primary healthcare sector also influence the rates of hospitalisation, for example, the underlying prevalence of the conditions. Public health measures that are not reported in this chapter may also influence the hospitalisation rates.

Data for this indicator are comparable.

The age standardised hospital separation rate of Indigenous people for all potentially preventable chronic conditions was 57.4 per 1000 Indigenous people in 2006-07 for NSW, Victoria, Queensland, WA, SA, and the NT combined. The quality of Indigenous identification is considered acceptable for the purpose of analysis only for these jurisdictions. Excluding diabetes complications (discussed below), chronic obstructive pulmonary disease, congestive cardiac failure and angina had the highest potentially preventable chronic hospitalisation rates for Indigenous people in 2006-07 (table 11.5).

**Table 11.5 Separations of Indigenous people for potentially preventable chronic conditions, per 1000 Indigenous people, 2006-07<sup>a, b</sup>**

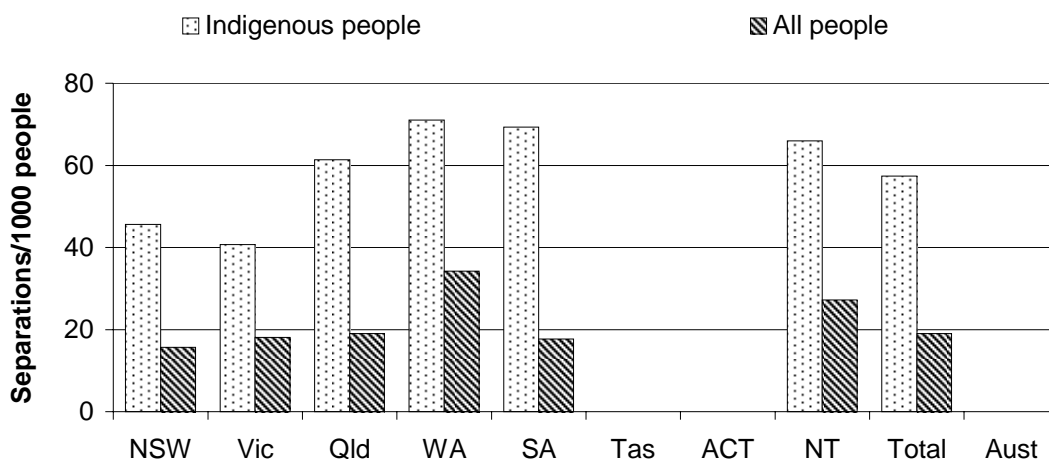
	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT<sup>c</sup></i>	<i>Total<sup>d</sup></i>	<i>Aust</i>
Angina	5.2	6.4	7.9	5.8	4.0	np	np	4.5	5.9	np
Asthma	4.1	2.4	3.3	4.9	4.4	np	np	4.0	3.9	np
Chronic obstructive pulmonary disease	12.3	9.6	11.7	12.4	14.0	np	np	15.8	12.4	np
Congestive cardiac failure	5.0	2.6	7.7	8.7	7.1	np	np	7.1	6.5	np
Diabetes <sup>e</sup>	21.6	20.5	35.1	44.0	41.0	np	np	36.4	31.7	np
Hypertension	0.6	0.2	1.4	0.7	1.4	np	np	0.7	0.9	np
Iron deficiency anaemia	1.6	2.3	1.7	2.2	1.8	np	np	2.4	1.9	np
Nutritional deficiencies	–	0.1	–	–	–	np	np	0.1	–	–
Rheumatic heart disease <sup>f</sup>	0.2	0.4	0.8	0.9	2.0	np	np	1.7	0.8	np
<b>Total<sup>g</sup></b>	<b>45.6</b>	<b>40.7</b>	<b>61.4</b>	<b>71.0</b>	<b>69.3</b>	<b>np</b>	<b>np</b>	<b>66.0</b>	<b>57.4</b>	<b>np</b>
Total excluding diabetes complications	28.8	24.1	34.6	35.7	34.6	np	np	36.4	32.3	np

<sup>a</sup> Separation rates are directly age standardised to the Australian population at 30 June 2001. <sup>b</sup> Caution should be used in the interpretation of these data because of jurisdictional differences in data quality. Published data are not necessarily representative of Tasmania and the ACT. <sup>c</sup> NT data are for public hospitals only. <sup>d</sup> Total comprises NSW, Victoria, Queensland, WA, SA and the NT. Data are not published for Tasmania and the ACT because the quality of Indigenous identification is not considered acceptable for purposes of analysis. <sup>e</sup> Excludes separations with a principal diagnosis of renal dialysis and an additional diagnosis of diabetes. <sup>f</sup> Rheumatic heart disease includes acute rheumatic fever as well as the chronic disease. <sup>g</sup> Totals may not equal the sum of individual conditions due to rounding. – Nil or rounded to zero. np not published.

Source: AIHW (unpublished), derived from the National Hospital Morbidity Database; table 11A.12; 2009 Report, table 11.12, p. 11.66.

The age standardised hospital separation rate of Indigenous people for all potentially preventable chronic conditions was higher than that for all people in 2006-07 in all jurisdictions for which data were published (figure 11.8).

Figure 11.8 **Separations for potentially preventable chronic conditions, 2006-07<sup>a, b, c, d, e</sup>**



<sup>a</sup> Separation rates are directly age standardised to the Australian population at 30 June 2001. <sup>b</sup> Caution should be used in the interpretation of these data because of jurisdictional differences in data quality. Published data are not necessarily representative of Tasmania and the ACT. <sup>c</sup> Indigenous separation rates are based on state of hospitalisation while all person rates are based on state of usual residence. <sup>d</sup> NT data for Indigenous people are for public hospitals only. <sup>e</sup> Total comprises NSW, Victoria, Queensland, WA, SA and the NT. Data are not published for Tasmania and the ACT because the quality of Indigenous identification is not considered acceptable for purposes of analysis.

Source: AIHW (2008), *Australian Hospital Statistics 2006-07*, Cat. no. HSE 55; AIHW (unpublished), derived from the National Hospital Morbidity Database; table 11A.12; 2009 Report, figure 11.36, p. 11.67.

### *Hospitalisations for diabetes*

‘Hospitalisations for diabetes’ is an indicator of governments’ objective to reduce hospitalisations due to diabetes through the provision of high quality, appropriate and effective management of diabetes in the primary and community health sector (box 11.6).

#### **Box 11.6 Hospitalisations for diabetes**

‘Hospitalisations for diabetes’ has two measures:

- Hospital separation rates for patients with diabetes mellitus as the principal diagnosis
- Hospital separation rates for patients with a lower limb amputation as well as a principal or additional diagnosis of diabetes.

(Continued on next page)

---

**Box 11.6 (Continued)**

Hospital separation rates are defined as hospital separations per 100 000 people. Rates are adjusted to account for differences in the age structures of State and Territory populations.

A reduction in these rates may indicate an improvement in GPs' and community health providers' management of patients' diabetes.

A comparison is made between Indigenous and all other people in the ratio of age standardised hospital separation rates of Indigenous people to all people. Rate ratios close to one indicate that Indigenous people have similar separation rates to all people, while higher rate ratios indicate relative disadvantage.

Factors outside the control of the primary healthcare sector also influence the rates of hospitalisation, for example, the underlying prevalence of the conditions. Public health measures that are not reported in this chapter may also influence the hospitalisation rates.

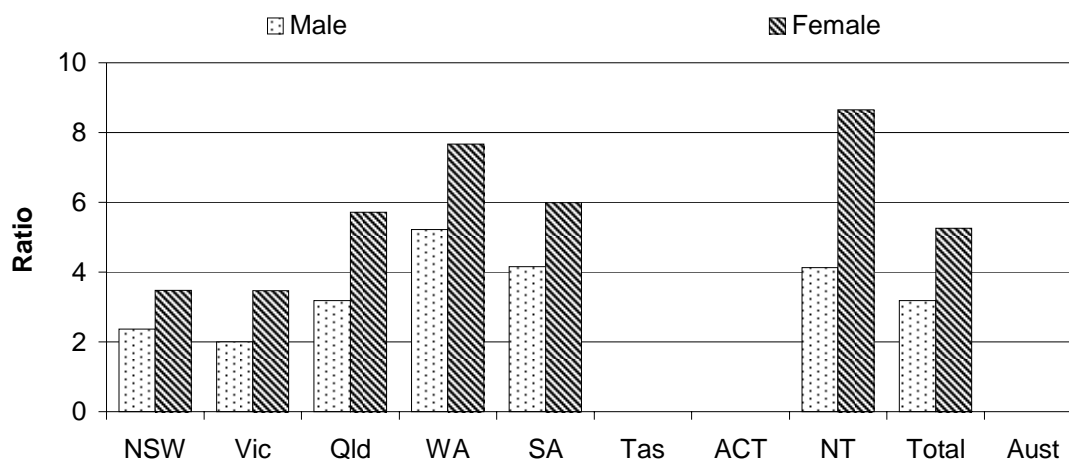
Data for this indicator are comparable.

Age standardised hospital separation ratios for all diabetes diagnoses<sup>1</sup> illustrate differences between the rate of hospital admissions for Indigenous people and that for all Australians, taking into account differences in the age structures of the two populations. For both males and females there was a marked difference in 2006-07 between the separation rates for Indigenous people and those for the total population for all diabetes diagnoses. The quality of Indigenous identification is considered acceptable for the purpose of analysis only for NSW, Victoria, Queensland, WA, SA and the NT. For these jurisdictions combined, the separation rate for Indigenous males was 3.2 times higher than those for all Australian males. The separation rate for Indigenous females was 5.3 times the rate for all females (figure 11.9).

---

<sup>1</sup> 'All diabetes' refers to separations with either a principal or additional diagnosis of diabetes, except where dialysis is the principal diagnosis.

Figure 11.9 Ratio of separation rates of Indigenous people to all people for all diabetes diagnoses, 2006-07<sup>a, b, c, d, e, f, g</sup>



<sup>a</sup> Ratios are directly age standardised to the Australian population at 30 June 2001. <sup>b</sup> Indigenous separation rates are based on state of hospitalisation while all person rates are based on state of usual residence. <sup>c</sup> 'All diabetes' refers to separations with a principal and/or additional diagnosis of diabetes, except where dialysis is the principal diagnosis. <sup>d</sup> Patients aged 75 years and over are excluded. <sup>e</sup> Caution should be used in the interpretation of these data because of jurisdictional differences in data quality. Published data are not necessarily representative of Tasmania and the ACT. <sup>f</sup> NT data are for public hospitals only. <sup>g</sup> Total comprises NSW, Victoria, Queensland, WA, SA and the NT. Data are not published for Tasmania and the ACT because the quality of Indigenous identification is not considered acceptable for purposes of analysis.

Source: AIHW (unpublished), derived from the National Hospital Morbidity Database; tables 11A.11 and 11A.14; 2009 Report, figure 11.40, p. 11.71.

## Future directions in performance reporting

### *Indigenous health*

Barriers to accessing primary health services contribute to the poorer health status of Indigenous people compared to other Australians (see the 'Health preface'). The Steering Committee has identified primary and community health services for Indigenous people as a priority area for future reporting. The Steering Committee will continue to examine options for the inclusion of further such indicators. The Aboriginal and Torres Strait Islander Health Performance Framework developed under the auspices of the Australian Health Ministers' Advisory Council will inform the selection of future indicators of primary and community health services to Indigenous people.

The completeness of Indigenous identification in hospital admitted patient statistics remains variable across states and territories. There has been some improvement, for example, data for NSW and Victoria are now considered to be of acceptable

---

quality for the purpose of analyses, whereas on previous assessment this was not the case. The quality of data for Tasmania and the ACT is considered to be too poor for publication. Continued efforts to improve Indigenous identification are necessary in order to better measure the performance of primary and community health services in relation to the health of Indigenous Australians. The AIHW is currently undertaking a project to develop best practice guidelines for identification.



---

## Attachment tables

Attachment 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 11A.3 is table 3 in the primary and community health attachment). The tables included in the attachment are listed below.

<b>Table 11A.1</b>	Indigenous primary healthcare services for which service activity reporting (SAR) data are reported (number)
<b>Table 11A.2</b>	Services and episodes of healthcare by services for which service activity reporting (SAR) data are reported, by remoteness category (number)
<b>Table 11A.3</b>	Proportion of services for which service activity reporting (SAR) data are reported that undertook selected health related activities, 2006-07 (per cent)
<b>Table 11A.4</b>	Full time equivalent (FTE) health staff employed by services for which service activity reporting (SAR) data are reported, as at 30 June 2007 (number)
<b>Table 11A.5</b>	Voluntary annual health assessments for older people by Indigenous status
<b>Table 11A.6</b>	Older Indigenous people who received an annual health assessment (per 1000 people)
<b>Table 11A.7</b>	Indigenous people who received a voluntary health check or assessment, by age (per 1000 people)
<b>Table 11A.8</b>	Early detection activities provided by services for which service activity reporting (SAR) data are reported
<b>Table 11A.9</b>	Valid vaccinations supplied to children under seven years of age, by type of provider, 1996–2008
<b>Table 11A.10</b>	Separations for selected vaccine preventable conditions, 2006-07 (per 1000 people)
<b>Table 11A.11</b>	Separations for selected potentially preventable acute conditions, 2006-07 (per 1000 people)
<b>Table 11A.12</b>	Separations for selected potentially preventable chronic conditions, 2006-07 (per 1000 people)
<b>Table 11A.13</b>	Ratio of separations for Indigenous males to all males, 2006-07
<b>Table 11A.14</b>	Ratio of separations for Indigenous females to all females, 2006-07
<b>Table 11A.15</b>	Australian Government, community health services programs
<b>Table 11A.16</b>	New South Wales, community health services programs
<b>Table 11A.17</b>	Victoria, community health services programs
<b>Table 11A.18</b>	Queensland, community health services programs
<b>Table 11A.19</b>	Western Australia, community health services programs
<b>Table 11A.20</b>	South Australia, community health services programs
<b>Table 11A.21</b>	Tasmania, community health services programs
<b>Table 11A.22</b>	Australian Capital Territory, community health services programs
<b>Table 11A.23</b>	Northern Territory, community health services programs

---

## References

- AIHW (Australian Institute of Health and Welfare) 2005, *Improving the Quality of Indigenous Identification in Hospital Separations Data*, Cat. no. HSE 101, Health Services Series no. 25, AIHW, Canberra.
- 2007, *Aboriginal and Torres Strait Islander Health Performance Framework, 2006 report: detailed analyses*, AIHW Cat. no. IHW 20, AIHW, Canberra.
- Billings, J., Anderson, G.M. and Newman, L.S. 1996, 'Recent findings on preventable hospitalisations', *Health Affairs*, vol. 15, no. 3, pp. 239–249.
- Bindman, A.B., Grumbach, K., Osmond, D., Komaromy, M., Vranizan, K., Lurie, N., Billings and J., Stewart, A. 1995, 'Preventable hospitalisations and access to health care', *Journal of the American Medical Association*, vol. 274, no. 4, pp. 305–311.
- DHS (Department of Human Services) 2002, *Victorian Ambulatory Care Sensitive Conditions Study: Preliminary Analyses*, Victorian Government, Melbourne.
- NHPC (National Health Performance Committee) 2004, *National Report on Health Sector Performance Indicators 2003*, AIHW Cat. no. HWI 78, Canberra: AIHW.
- SCRGSP (Steering Committee for the Review of Government Service Provision) 2007, *Overcoming Indigenous Disadvantage: Key Indicators 2007*, Productivity Commission, Canberra.
- Weissman, J.S., Gatsonis, C. and Epstein, A.M. 1992, 'Rates of avoidable hospitalisation by insurance status in Massachusetts and Maryland', *Journal of the American Medical Association*, vol. 268, no. 17, pp. 2388–2394.