

# Healthcare 2010–11: Comparing performance across Australia

**Report to the Council of Australian Governments** 

30 April 2012





## Healthcare 2010–11: Comparing performance across Australia

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# About the COAG Reform Council

The COAG Reform Council has been set up by the Council of Australian Governments (COAG) as part of the arrangements for federal financial relations. The council is independent of individual governments and reports directly to COAG.

The COAG Reform Council's mission is to assist COAG to drive its reform agenda by strengthening the public accountability of governments through independent and evidence-based assessment and performance reporting.

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Australian Bureau of Statistics

Australian Institute of Health and Welfare





30 April 2012

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The Hon Julia Gillard MP Prime Minister Parliament House CANBERRA ACT 2600

Dear Prime Minister

On behalf of the COAG Reform Council, I am pleased to present our report *Healthcare* 2010–11: Comparing performance across Australia.

The report has been prepared in accordance with the Intergovernmental Agreement on Federal Financial Relations, which requires the council to publish performance information and a comparative analysis of the performance of governments. This is the council's third yearly report on the National Healthcare Agreement.

Overall, health outcomes for Australians reflect well on our health system. Most Australians live long and healthy lives. Further, we anticipate that the full benefits of recent health reforms will be reflected in future years.

However, not all Australians enjoy the same health outcomes. In key dimensions of hospital care, we do not see consistent strong performance across all States and Territories. We have also found that there are inequalities for Australians living in rural and remote areas, and in socio-economically disadvantaged areas and for Indigenous Australians. Supplementary material focussing on health outcomes for each of these three groups will accompany the release for our reports for the National Healthcare and National Indigenous Reform agreements.

Consistent with the council's performance reporting and public accountability role, the council will publicly release this report in June 2012. The council hopes that the findings and recommendations in this report assist COAG with its reform agenda.

Yours sincerely

and M' Mintal

Paul McClintock AO Chairman



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# Healthcare 2010–11: Key findings

# Progress in improving hospital care is not consistent across the nation

- Emergency department performance has remained stable overall, though has improved in the more urgent categories, with a greater proportion of patients being seen within benchmark times.
  - NSW has consistently performed well, while South Australia and the Northern Territory have been the big improvers from 2007–08 to 2010–11.
- Overall elective surgery waiting times have increased in Australia since 2007–08. Longer elective surgery waiting times in the states with larger populations—particularly NSW— have outweighed improvements seen in other jurisdictions.
  - Western Australia, South Australia and the Northern Territory each had improved waiting times overall, as well as for most of the reported specific procedures.

# Health outcomes are not equal for all Australians

- The proportion of people who delayed or did not see a GP due to cost has increased—from 6.4% in 2009–10 to 8.7% in 2010–11.
- More than a quarter of people (26.4%) report financial barriers to seeing a dentist—this is a far higher rate than for any other health profession.
- With few exceptions, health outcomes for Australians living outside of major cities have shown little improvement, or have even worsened—similarly circumstance exist for people in socio-economically disadvantaged areas and among Indigenous Australians
  - For example, people outside major cities reported more unacceptable waiting times for GPs, waited longer for elective surgery, and had lower rates of mental health service use and mental health plans—outcomes generally mirrored by people in disadvantaged areas and among Indigenous Australians
  - People outside major cities had higher rates of a range of preventable diseases, lower rates of cancer survival—an inequity that is even greater among people in disadvantaged areas—and were more likely to have babies born with a low birth weight, another outcome seen among the disadvantaged and Indigenous.
  - Elderly people outside major cities waited longer in hospital beds for residential aged care places—which are scarcer than in the cities—and received sub-acute care services at a lower rate than those in major cities.



# Overview

# National Healthcare Agreement: Performance report for 2010–11

This is the council's third report under the National Healthcare Agreement.

Healthcare plays an essential role in the overall wellbeing of Australians and the Australian economy. How healthy we are today affects our health as we age and the cost of healthcare to governments in the future. The Commonwealth, State and Territory governments have all recognised the need to invest in healthcare to lift outcomes for all, but in particular for disadvantaged groups.

The National Healthcare Agreement was originally signed in 2008 and updated in August 2011. The overarching objective of the National Healthcare Agreement is to improve health outcomes for all Australians and the sustainability of Australia's health system (COAG 2011c).

In this report, we look at governments' progress towards this objective. We do this by assessing their performance against the seven specific objectives set out in the agreement (Box 1).

## Box 1 National Healthcare Agreement: objectives

• Prevention—Australians are born and remain hea
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- Primary and community health—Australians receive appropriate high quality and affordable primary and community health services
- Hospital and related care—Australians receive appropriate high quality and affordable hospital and hospital-related care
- Aged care—Older Australians receive appropriate high quality and affordable health and aged care services
- Patient care—Australians have positive health and aged care experiences which take account of individual experiences and care needs
- Social inclusion and Indigenous health—Australia's health system promotes social inclusion and reduces disadvantage, especially for Indigenous Australians
- Sustainability—Australians have a sustainable health system

Recognising the indicators can be relevant to multiple dimensions of healthcare, some key findings are loosely grouped by the key themes below.

- Are we a healthy nation?
- What healthcare services do we use?
- Are our healthcare services good quality?
- Do all Australians receive the same care?

# Are we a healthy nation?

## Life expectancy has increased for men and women-but more for men

Nationally, in 2008–2010, life expectancy for men was 79.5 years and 84.0 years for women.

- Between 2005–2007 and 2008–2010, life expectancy in males increased across all jurisdictions. Nationally, the increase was 0.5 years. The greatest increase was in the Northern Territory with 1.6 years.
- During the same period, life expectancy for females increased by 0.3 years.

# Death rates improved for children under 1 year old

Infant death (mortality) rates (that is, children under 1 year old) have improved, particularly in the Northern Territory.

• The greatest improvements in infant death rates between 2006–2008 and 2008–2010 were in the ACT and Northern Territory, where rates have fell by 0.5 and 0.9 deaths per 1000 live births respectively.

# While decreasing nationally, child death rates (for 1 to 4 year olds) have increased in a number of States and Territories

While the national child death rate fell by 1.2 deaths per 100 000 persons from 2006–2008 to 2008–10, the rate increased by 1.1 deaths per 100 000 persons in Victoria, 1.7 in Western Australia, 4.8 in Tasmania and 10.3 in the Northern Territory. However, care should be taken in interpreting these results, as they are based on relatively small numbers and may be subject to volatility. More data from future years is needed to draw firmer conclusions.

## **Cancer incidence rates**

We report on incidence rates of five cancers that are potentially preventable or amenable to intervention if detected early. While rates of these cancers can be affected by a range of factors, they may help show whether preventive health programs—such as anti-smoking initiatives and cancer screening programs—are effective over time.

- Nationally, female breast cancer incidence rates increased significantly from 109.2 per 100 000 women in 2007 to 115.4 in 2008, though this should be considered in the context of an overall fall in rates over the previous decade.
- Incidence rates that are higher than the national rate in 2008 include:
  - in Queensland, for lung cancer and melanoma
  - in Tasmania, for bowel cancer
  - in the Northern Territory, for lung cancer.
- Lung cancer incidence rates were significantly higher in very remote areas (61.4 per 100 000) compared to the rate in major cities (42.2).





### Figure 1 Incidence rates for selected cancers, 2006 to 2008

Notes:

1. Rates for cervical and female breast cancer are expressed per 100 000 female population.

2. See statistical supplement, table NHA.4.1 for data and technical notes.

Source: AIHW (unpublished) Australian Cancer Database; ABS (unpublished) Estimated Resident Population, 30 June 2008.

## Persistence required to meet smoking rate benchmark

The National Healthcare Agreement specifies performance benchmarks that provide an indication of the standard of service expected or the level of improvement expected in service delivery over a specified period. For smoking, the performance benchmark is:

By 2018, reduce the national smoking rate to 10% of the population and halve the Indigenous smoking rate, over the 2009 baseline.

The council has not received new data on smoking rates for this report—the most recent data we received was published in our baseline report. That data showed that in 2007–08:

- the adult smoking rate was 19.1%
- · the smoking rate increased with remoteness and socio-economic disadvantage
- adult Indigenous Australians had the highest rate—almost 1 in 2 were smokers.

Figure 2 shows data on smoking rates since 1980. While these historical data show a fall over time in smoking rates, the figure highlights that the commitment to reduce smoking must remain strong if the 10% target is to be achieved.



### Figure 2 National adult smoking rates, 1980–2010

Notes:

- 1. The COAG target, the data from the National Health Survey and the Centre for Behavioural Research in Cancer are for the population aged 18 years or older, while the National Drug Strategy Household Survey data are for the population aged 14 years or older.
- 2. See statistical supplement, table Additional.1 for data and sources.

# 20% increase in notifications of some sexually transmitted infections

Notification rates for chlamydia and gonoccocal infection both increased nationally by more than 20% from the baseline year of 2008.

Nationally, from 2008 to 2010, notification rates:

- decreased 19.5% for syphilis
- increased 20.4% for chlamydia
- increased 23.3% for gonococcal infection.

Chlamydia and gonococcal infection rates increase sharply with remoteness, among the most disadvantaged Australians and Indigenous Australians. However, we do not know whether these differences reflect higher actual incidence rates or result from greater screening for these conditions in certain areas of Australia.



# What healthcare services do we use?

# Waiting time in emergency departments—nationally stable, though some strong performers

In emergency departments, the percentage of patients being seen within benchmarks remained stable nationally, being 67% in 2007–08 and 68% in 2010–11.

- NSW has consistently performed well, with the highest proportion of patients seen within benchmarks in three of the four reporting years.
- South Australia showed strong improvement over the reporting period. The proportion of patients seen within benchmarks improving by almost one quarter over period (from 58% to 71%)—it has risen from one of the poorer performers to one of the best.
- The Northern Territory has had the lowest proportion over the four years. However, it has consistently improved every year from 41% in 2007–08 to 52% in 2010–11.

# Figure 3 Patients treated within national benchmarks for emergency department waiting time, by State and Territory, 2007–08 to 2010–11



Notes:

1. See statistical supplement, table NHA.35.1 for data and technical notes.

Source: AIHW (unpublished) National Non-admitted Patient Emergency Department Care Database.

# Elective surgery waiting times increased

In determining changes in average national waiting times for elective surgery, longer times in the States with larger populations—particularly NSW—have outweighed improvements seen in other jurisdictions. As a result, overall elective surgery waiting times have increased in Australia since 2007–08.

At the middle of the elective surgery waiting list:

- the national waiting time increased from 34 to 36 days
- the largest rise in waiting time was in NSW—from 39 to 47 days
- the largest fall in waiting time was in the Northern Territory, from 43 to 33 days, followed by South Australia where waiting times fell from 42 to 38 days.

For people who waited the longest:

- the national waiting time increased from 235 to 252 days
- the largest rise in waiting time was in NSW—278 to 333 days.
- the largest fall in waiting time was in the Northern Territory, from 337 to 223 days, Western Australia, from 206 to 159 days, followed by Victoria, from 221 to 182 days.

# The proportion of people not seeing a GP due to cost have increased

Nationally, the proportion of people that delayed or did not see a GP due to cost has increased from 6.4% in 2009 to 8.7% in 2010–11.

• NSW, South Australia, Tasmania, the ACT and the Northern Territory all had a significant increase in the proportion of people who delayed or did not see a GP due to cost between 2009 and 2010–11 (see Figure 4).

# Costs are also a barrier to seeing dentists

More than a quarter (26.4%) of people report financial barriers to seeing a dentist—this is a far higher rate than for any other health profession, and rises to around one-third among Australians living in the most disadvantaged areas of the nation.

Rates at which public hospitals provide outpatient dental services fell almost 20% from 2007–08 to 2009–10—this represents around 180 000 fewer dental services provided through public hospitals.







Notes:

1. See statistical supplement, tables NHA.16.1, NHA.16.2, NHA.16.3, NHA.16.4 and NHA.16.6 for data. *Source:* ABS (unpublished) Patient Experience Survey 2010–11

## Waiting times for GP appointments are more acceptable to patients

Nationally, the proportion of people who felt that they waited an unacceptable time to see a GP fell from 17.8% in 2009 to 15.5% in 2010–11.

The greatest improvement in rate was in Western Australia, where the rate fell from 25.9% in 2009 to 16.1% in 2010–11.

## Adult immunisation decreased

Adult rates are low and have fallen lower since data were last available. Between 2006 and 2009, the rate of immunisations for adults fell from 58.8% to 50.6% nationally, with significant falls in NSW and Victoria, the most populous states.

# Are our healthcare services of good quality?

# Patient satisfaction generally high

Overall, the level of patient satisfaction is high across three measures of patient experience whether people felt that the professional has listened carefully, shown respect and spent enough time with them.

- Dental professionals had higher ratings for each of the three characteristics than any other professionals in 2010–11.
- Doctors, specialists and nurses in emergency departments rated significantly lower on each of the three characteristics than any other professional group in 2010–11.

## More people are surviving cancer

- Cancer survival rates have increased overall for the five years to 2010—though rates in remote and socio-economically disadvantaged areas are lower than in less remote and less disadvantaged areas (see Figure 5). We do not have data on survival rates in each State and Territory.
- These rates reflect on the quality of care in hospitals, though also on other aspects of the healthcare system, such as primary and community care, and preventive health.



# Figure 5 Five-year relative survival rates for people diagnosed with cancer, by remoteness, by socioeconomic status, 2002–2006 and 2006–2010

Notes:

1. See statistical supplement, tables NHA.44.1 and NHA.44.2 for data and technical notes.

Source: AIHW (unpublished) Australian Cancer Database; AIHW (unpublished) National Mortality Database.



# Do all Australians receive the same care?

# Health outcomes for rural and regional Australians lag behind those in major cities

With few exceptions, health outcomes for Australians living outside of our major cities have shown little improvement, or have even worsened. This is especially the case for Indigenous Australians. People outside of major cities:

- reported more unacceptable waiting times for GPs
- were less likely to survive cancer
- waited longer for elective surgery
- had lower rates of mental health services use and mental health plans
- had higher rates of potentially preventable diseases
- had babies that are more likely to have a low birth weight and be born to teenage mothers.

There are similar inequalities in the health outcomes for Australians who live in areas of socioeconomic disadvantage and for Indigenous Australians.

## Patient satisfaction by remoteness

A higher proportion of people in the major cities reported better patient experience compared to people outside major cities, though there are exceptions.

- In NSW, a significantly lower rate of people outside major cities felt that emergency department doctors or specialists spent enough time with them.
- In Western Australia, a significantly lower proportion of people in major cities felt that emergency department nurses spent enough time with them.





# Snapshots of progress

In this section, we provide brief snapshots of performance and progress under selected indicators.

- The first section presents a performance comparison of selected healthcare indicators for each State and Territory against national rates, as well as compared to change in each jurisdiction over time. A performance comparison over time is provided for the Commonwealth.
- The second section summarises social inclusion outcomes against key indicators under the National Healthcare Agreement, focusing on Indigenous status, socio-economic status and geographical remoteness.

## How the indicators were selected

Performance indicators have been selected from four of the objectives in the National Healthcare Agreement.

The council has selected these indicators according to the following criteria:

- Comparability: data are available and can be compared across States and Territories.
- **High level:** we have attempted to select indicators that are capable of presenting a highlevel picture of performance. Performance in these areas will substantially influence the objective/outcomes under the National Healthcare Agreement.
- **Meaningful:** we have selected indicators that are easy to understand and meaningful in the context of performance reporting. Many of the other indicators are not meaningful as standalone indicators because it is not clear if a decrease or increase is desirable.

## Which government is responsible for performance?

The indicators we report below for States and Territories are generally those for which they are primarily responsible—such as hospitals—or have joint responsibility with the Commonwealth—such as preventive health indicators like melanoma incidence rates and immunisation. Similarly, indicators we report for the Commonwealth are in those areas for which it has lead responsibility—such as primary care—or joint responsibility with the States and Territories.

While the indicator 'rate of potentially avoidable deaths' falls under the primary care objective of the National Healthcare Agreement (a Commonwealth responsibility) it is also relevant to preventive health (a joint responsibility) and hospital care (a State and Territory responsibility). Accordingly, we report this indicator for the Commonwealth, as well as States and Territories.

It should be kept in mind that the interplay between various parts of the health sector can be intricate, with performance in one part of the sector having the potential to affect outcomes in another.

# How to read the jurisdictional snapshots

# How to read the tables

For each State and Territory, we have provided a table that compares performance against the overall national performance for the selected indicators. We do this using the most recent available data for each indicator.

To help interpret the tables, we have shaded some percentage differences between the national and the State or Territory results—light green shading shows where the performance was more than 10% better than the national rate, and orange shading shows where the performance was more than 10% worse than the national rate.

Highlighting differences greater than 10% allows the reader to see potentially notable differences at a glance. It is not a measure of statistical significance.

# How to read the Figures

The figures show the relative change in performance for each indicator in each State and Territory. To help interpret the figures, we have coloured the bars so that undesirable changes are coloured **red** and desirable change are coloured **green**.

# When is performance 'desirable' or 'undesirable'?

We have partly chosen these snapshots because it is possible to determine what changes are desirable or undesirable. Whether performance under an indicator is 'desirable' or 'undesirable' will depend on what it is that the indicator measures.

Table S.1 provides a summary of the seven selected indicators.

## Table S.1 Selected indicators

Lower rates are desirable for	for which the baseline year is	and the most recent data are from
Melanoma incidence rate	2006	2008
Proportion of adult daily smokers	2007–08	2007–08
Potentially avoidable deaths	2007	2009
Elective surgery waiting times	2007–08	2010–11
Higher rates are desirable for	for which the baseline year is	and the most recent data are from
Proportion of children vaccinated	2009	2011
Proportion of emergency department patients seen on time (%)	2007–08	2010–11
Sub-acute services for +65 years	2007_08	2009-10

#### Reform Council This section describes the State or Territory performance State/Territory-snapshot of performance against selected indicators compared to change Table S.X shows that in State/Territory, compared to the overall Australian performance: in the national results. the elective surgery waiting time was 38.9% higher This table compares the melanoma incidence rate was 18.0% lower. Light green shading State or Territory shows where the performance against Since the baseline year, performance has improved in four of the seven selected performance State or Territory the overall national indicators-see Figure S.X. result was more than performance for the 10% better than the most recent available Table S.X Performance in S/T compared to Australia<sup>1</sup> national result, and year. orange shading +/-% Performance indicator S/T Aust shows where the Like to know more? Australians are born and remain healthy State or Territory See chapter 2. Melanoma incidence rate (per 100 000 people) 40.0 48.8 -18.0 result was more than 10% worse than the Proportion of adult daily smokers (%) 20.0 19.1 -4.7 national result. 90.0 Proportion of children immunised (%) 89.6 -04 Like to know more? Australians receive appropriate high quality and affordable primary & community health See chapters 3 Potentially avoidable deaths (per 100 000 people) 130.0 144.9 -10.3 and 4. Australians receive appropriate high quality and affordable hospital and related care Like to know more? See chapter 5. Elective surgery median waiting times (in days) 50 36 +38.9 80 68 Proportion of emergency department patients seen on time (%) +17.6Like to know more? Older Australians receive appropriate high quality and affordable health and aged care See chapter 6. Sub-acute services for +65 years (per 1000 people) 70.0 73.9 +5.3 Figure S.X Change in performance in State/Territory from 2008-09 to this report This section shows the relative change Performance indicator Percentage change from baseline in performance in Melanoma incidence rate (per 100 000 people) -5 each State or Territory. To help Proportion of adult daily smokers (%)-2007-08 only interpret the figure, Proportion of children immunised (%) undesirable Potentially avoidable deaths (per 100 000 people) changes are Elective surgery median waiting times (in days) coloured red, and desirable changes Data comes from Proportion of ED patients seen on time (%) are coloured green. different tables in Sub-acute services for +65 years (per 1000 people) the report. More 25 -25 -15 -5 5 15 details about the Notes data are in the Data used were the most recent available data for each indicator 1. statistical Elective surgery median waiting times are the time in days its takes for 50% of people on the waiting list to have undergone their procedure. 2 supplement. See statistical supplement, table NHA.4.1, 9.1, 20.1, 34.1, 35.1, and 56.1 for data, technical notes and sources. Baseline data were reported in the council's 2008–09 report. 3

### Figure S.1 How to read the jurisdictional snapshots



# New South Wales-snapshot of performance against selected indicators

Table S.2 shows that in NSW, compared to the overall Australian performance:

- the elective surgery waiting time was 30.6% per cent higher
- the rate of sub-acute services provided to people aged over 65 years was 33.4% higher.

Since the baseline year, performance has improved in five of the seven selected performance indicators—see Figure S.2.

## Table S.2 Performance in NSW compared to Australia<sup>1</sup>

Performance indicator	NSW	Aust	+/-%			
Australians are born and remain healthy						
Melanoma incidence rate (per 100 000 people)	47.9	48.8	-1.8			
Proportion of adult daily smokers (%)	19.0	19.1	-0.5			
Proportion of children immunised (%)	89.7	89.6	+0.1			
Australians receive appropriate high quality and affordable primary & community health						
Potentially avoidable deaths (per 100 000 people)	139.6	144.9	-3.7			
Australians receive appropriate high quality and affordable hospital and related care						
Elective surgery median waiting times (in days)	47	36	+30.6			
Proportion of emergency department patients seen on time (%)	74	68	+8.8			
Older Australians receive appropriate high quality and affordable health and aged care						
Sub-acute services for +65 years (per 1000 people)	98.6	73.9	+33.4			

# Figure S.2 Change in performance in NSW from 2008–09 to this report

Performance indicator	Percentage change from baseline	
Melanoma incidence rate (per 100 000 people)	-2.7	
Proportion of adult daily smokers (%)-2007-08 only		
Proportion of children immunised (%)	9.4	
Potentially avoidable deaths (per 100 000 people)	-5.7	
Elective surgery median waiting times (in days)	20.5	
Proportion of ED patients seen on time (%)	0.8	
Sub-acute services for +65 years (per 1000 people)	29 1	
	-25 -15 -5 5 15 25	

Notes:

<sup>1.</sup> Data used were the most recent available data for each indicator.

<sup>2.</sup> Elective surgery median waiting times are the time in days its takes for 50% of people on the waiting list to have undergone their procedure.

<sup>3.</sup> See statistical supplement, table NHA.4.1, 9.1, 20.1, 34.1, 35.1, and 56.1 for data, technical notes and sources. Baseline data were reported in the council's 2008–09 report.



# Victoria-snapshot of performance against selected indicators

Table S.3 shows that in Victoria, compared to the overall Australian performance:

- the melanoma incidence rate was 20.1% lower
- the rate of sub-acute services provided to people aged over 65 years was 15.7% lower.

Since the baseline year, performance has improved in three of the seven selected performance indicators—see Figure S.3.

## Table S.3 Performance in Victoria compared to Australia<sup>1</sup>

Performance indicator	Vic	Aust	+/-%		
Australians are born and remain h	nealthy				
Melanoma incidence rate (per 100 000 people)	39.0	48.8	-20.1		
Proportion of adult daily smokers (%)	17.3	19.1	-9.4		
Proportion of children immunised (%)	91.1	89.6	+1.7		
Australians receive appropriate high quality and affordable primary and community health					
Potentially avoidable deaths (per 100 000 people)	138.9	144.9	-4.1		
Australians receive appropriate high quality and afforda	ble hospit	al and related	care		
Elective surgery median waiting times (in days)	36	36	0.0		
Proportion of emergency department patients seen on time (%)	70	68	+2.1		
Older Australians receive appropriate high quality and affordable health and aged care					
Sub-acute services for +65 years (per 1000 people)	62.3	73.9	-15.7		

### Figure S.3 Change in performance in Victoria from 2008–09 to this report

Performance indicator	Percentage change from baseline					ne
Melanoma incidence rate (per 100 000 people)			3.2 📕			
Proportion of adult daily smokers (%)-2007-08 only						
Proportion of children immunised (%)				6.2		
Potentially avoidable deaths (per 100 000 people)				2.1		
Elective surgery median waiting times (in days)				9.1		
Proportion of ED patients seen on time (%)			-0.1			
Sub-acute services for +65 years (per 1000 people)				3.3		
	-25	-15	-5	5	' 15	25

Notes:

<sup>1.</sup> Data used were the most recent available data for each indicator.

<sup>2.</sup> Elective surgery median waiting times are the time in days its takes for 50% of people on the waiting list to have undergone their procedure.

<sup>3.</sup> See statistical supplement, table NHA.4.1, 9.1, 20.1, 34.1, 35.1, and 56.1 for data, technical notes and sources. Baseline data were reported in the council's 2008–09 report.



# Queensland—snapshot of performance against selected indicators

Table S.4 shows that in Queensland, compared to the overall Australian performance:

- the melanoma incidence rate was 38.4% higher
- the proportion of adult smokers was 13.1% higher
- elective surgery median waiting times were 19.4% shorter
- the rate of sub-acute services provided to people aged over 65 years was 14.3% lower.

Since the baseline year, performance has improved in four of the seven selected performance indicators—see Figure S.4.

## Table S.4 Performance in Queensland compared to Australia<sup>1</sup>

Performance indicator	Qld	Aust	+/-%			
Australians are born and remain h	ealthy					
Melanoma incidence rate (per 100 000 people)	67.5	48.8	+38.4			
Proportion of adult daily smokers (%)	21.6	19.1	+13.1			
Proportion of children immunised (%)	90.3	89.6	+0.8			
Australians receive appropriate high quality and affordable primary and community health						
Potentially avoidable deaths (per 100 000 people)	151.5	144.9	+4.6			
Australians receive appropriate high quality and affordable hospital and related care						
Elective surgery median waiting times (in days)	29	36	-19.4			
Proportion of emergency department patients seen on time (%)	66	68	-3.0			
Older Australians receive appropriate high quality and affordable health and aged care						
Sub-acute services for +65 years (per 1000 people)	63.3	73.9	-14.3			

# Figure S.4 Change in performance in Queensland from 2008–09 to this report

Performance indicator	Percentage change from baseline
Melanoma incidence rate (per 100 000 people)	12.6
Proportion of adult daily smokers (%)—2007–08 only	
Proportion of children immunised (%)	9.4
Potentially avoidable deaths (per 100 000 people)	-2.1
Elective surgery median waiting times (in days)	7.4
Proportion of ED patients seen on time (%)	5.5
Sub-acute services for +65 years (per 1000 people)	21,3
	-25 -15 -5 5 15 25

Notes:

2. Elective surgery median waiting times are the time in days its takes for 50% of people on the waiting list to have undergone their procedure.

<sup>1.</sup> Data used were the most recent available data for each indicator.

<sup>3.</sup> See statistical supplement, table NHA.4.1, 9.1, 20.1, 34.1, 35.1, and 56.1 for data, technical notes and sources. Baseline data were reported in the council's 2008–09 report.





# Western Australia—snapshot of performance against selected indicators

Table S.5 shows, compared to the overall Australian performance, in Western Australia:

- elective surgery median waiting times were 19.4% shorter
- the proportion of emergency department patients seen on time was 13.8% lower
- the rate of sub-acute services provided to people aged over 65 years was 37.7% lower.

Since the baseline year, performance has improved in six of the seven selected performance indicators—see Figure S.5.

## Table S.5 Performance in Western Australia compared to Australia<sup>1</sup>

Performance indicator	WA	Aust	<b>+/-</b> %			
Australians are born and remain healthy						
Melanoma incidence rate (per 100 000 people)	49.2	48.8	+0.8			
Proportion of adult daily smokers (%)	17.3	19.1	-9.4			
Proportion of children immunised (%)	86.0	89.6	-4.0			
Australians receive appropriate high quality and affordable primary and community health						
Potentially avoidable deaths (per 100 000 people)	143.9	144.9	-0.7			
Australians receive appropriate high quality and affordable hospital and related care						
Elective surgery median waiting times (in days)	29	36	-19.4			
Proportion of emergency department patients seen on time (%)	59	68	-13.8			
Older Australians receive appropriate high quality and affordable health and aged care						
Sub-acute services for +65 years (per 1000 people)	46.0	73.9	-37.7			

### Figure S.5 Change in performance in Western Australia from 2008–09 to this report

Performance indicator	Percentage change from baseline
Melanoma incidence rate (per 100 000 people)	-7.0
Proportion of adult daily smokers (%)-2007-08 only	
Proportion of children immunised (%)	7.1
Potentially avoidable deaths (per 100 000 people)	-5.7
Elective surgery median waiting times (in days)	-3.3
Proportion of ED patients seen on time (%)	0.1
Sub-acute services for +65 years (per 1000 people)	4.1
	-25 -15 -5 5 15 25

Notes:

1. Data used were the most recent available data for each indicator.

2. Elective surgery median waiting times are the time in days its takes for 50% of people on the waiting list to have undergone their procedure.

<sup>3.</sup> See statistical supplement, table NHA.4.1, 9.1, 20.1, 34.1, 35.1, and 56.1 for data, technical notes and sources Baseline data were reported in the council's 2008–09 report.



# South Australia-snapshot of performance against selected indicators

Table S.6 shows, compared to the overall Australian performance, in South Australia:

• the melanoma incidence rate was 19.1% lower.

Since the baseline year, performance has improved in five of the seven selected performance indicators—see Figure S.6.

# Table S.6 Performance in South Australia compared to Australia<sup>1</sup>

Performance indicator		Aust	+/-%
Australians are born and remain her	althy		
Melanoma incidence rate (per 100 000 people)	39.5	48.8	-19.1
Proportion of adult daily smokers (%)	20.2	19.1	+5.8
Proportion of children immunised (%)	87.0	89.6	-2.9
Australians receive appropriate high quality and affordable p	rimary an	d community	health
Potentially avoidable deaths (per 100 000 people)	149.2	144.9	+3.0
Australians receive appropriate high quality and affordable hospital and related care			
Elective surgery median waiting times (in days)	38	36	+5.6
Proportion of emergency department patients seen on time (%)	71	68	+3.0
Older Australians receive appropriate high quality and affordable health and aged care			
Sub-acute services for +65 years (per 1000 people)	72.4	73.9	-1.9

# Figure S.6 Change in performance in South Australia from 2008–09 to this report

Performance indicator	Percenta	ige chan	ge from	baselin	е
Melanoma incidence rate (per 100 000 people)			10.6		
Proportion of adult daily smokers (%)-2007-08 only					
Proportion of children immunised (%)			15.0		
Potentially avoidable deaths (per 100 000 people)		-4.7			
Elective surgery median waiting times (in days)		-9.5			
Proportion of ED patients seen on time (%)			21.6		
Sub-acute services for +65 years (per 1000 people)			81.6		
	-25 -15	-5	5	15	- 25

Notes:

1. Data used were the most recent available data for each indicator.

2. Elective surgery median waiting times are the time in days its takes for 50% of people on the waiting list to have undergone their procedure.

3. See statistical supplement, table NHA.4.1, 9.1, 20.1, 34.1, 35.1, and 56.1 for data, technical notes and sources. Baseline data were reported in the council's 2008–09 report.





# Tasmania- snapshot of performance against selected indicators

Table S.7 shows, compared to the overall Australian performance, in Tasmania:

- the adult smoking rate was 27.2% higher
- the rate of potentially avoidable deaths was 25.9% higher
- the proportion of emergency department patients seen on time was 13.7% lower
- the rate of sub-acute services provided to people aged over 65 years was 65.5% lower, likely partly reflecting a higher rate of services provided on an outpatient basis.

Since the baseline year, performance has improved in one of the seven selected performance indicators—see Figure S.7.

## Table S.7 Performance in Tasmania compared to Australia<sup>1</sup>

Performance indicator	Tas	Aust	<b>+/-</b> %	
Australians are born and remain	healthy			
Melanoma incidence rate (per 100 000 people)	49.4	48.8	+1.3	
Proportion of adult daily smokers (%)	24.3	19.1	+27.2	
Proportion of children immunised (%)	90.0	89.6	+0.4	
Australians receive appropriate high quality and affordable primary and community health				
Potentially avoidable deaths (per 100 000 people)	182.4	144.9	+25.9	
Australians receive appropriate high quality and affordate	able hospit	al and related	care	
Elective surgery median waiting times (in days)	38	36	+5.6	
Proportion of emergency department patients seen on time (%)	59	68	-13.7	
Older Australians receive appropriate high quality and affordable health and aged care				
Sub-acute services for +65 years (per 1000 people)	25.5	73.9	-65.5	

## Figure S.7 Change in performance in Tasmania from 2008–09 to this report Caption

Performance indicator	Percentage chang	ge from baseline
Melanoma incidence rate (per 100 000 people)		6.3
Proportion of adult daily smokers (%)-2007-08 only		
Proportion of children immunised (%)		14.5
Potentially avoidable deaths (per 100 000 people)		1.9
Elective surgery median waiting times (in days)		5.6
Proportion of ED patients seen on time (%)	-1.5	
Sub-acute services for +65 years (per 1000 people)	-0.3	
	-25 -15 -5	5 15 25

### Notes:

1. Data used were the most recent available data for each indicator.

- 2. Elective surgery median waiting times are the time in days its takes for 50% of people on the waiting list to have undergone their procedure.
- 3. See statistical supplement, table NHA.4.1, 9.1, 20.1, 34.1, 35.1, and 56.1 for data, technical notes and sources. Baseline data were reported in the council's 2008–09 report.



# Australian Capital Territory—snapshot of performance against selected indicators

Table S.8 shows, compared to the overall Australian performance, in the ACT:

- the proportion of adult daily smokers was 17.8% lower
- the rate of potentially avoidable deaths was 18.6% lower
- the elective surgery median waiting time was 111.1% higher
- the proportion of emergency department patients seen on time was 15.8% lower
- the rate of sub-acute services provided to people aged over 65 years was 73.6% higher.

Since the baseline year, performance has improved in three of the seven selected performance indicators—see Figure S.8.

# Table S.8 Performance in ACT compared to Australia<sup>1</sup>

Performance indicator	АСТ	Aust	+/-%
Australians are born and remain I	nealthy		
Melanoma incidence rate (per 100 000 people)	44.7	48.8	-8.3
Proportion of adult daily smokers (%)	15.7	19.1	-17.8
Proportion of children immunised (%)	90.6	89.6	+1.1
Australians receive appropriate high quality and affordable primary and community health			
Potentially avoidable deaths (per 100 000 people)	118.0	144.9	-18.6
Australians receive appropriate high quality and affordable hospital and related care			
Elective surgery median waiting times (in days)	76	36	+111.1
Proportion of emergency department patients seen on time (%)	58	68	-15.8
Older Australians receive appropriate high quality and affordable health and aged care			
Sub-acute services for +65 years (per 1000 people)	128.2	73.9	+73.6

# Figure S.8 Change in performance in ACT from 2008–09 to this report

Performance indicator	Perc	entage	chan	ge from	ı basel	ine
Melanoma incidence rate (per 100 000 people)				5.6		
Proportion of adult daily smokers (%)-2007-08 only						
Proportion of children immunised (%)				7.3		
Potentially avoidable deaths (per 100 000 people)			-8.4			
Elective surgery median waiting times (in days)				5.6		
Proportion of ED patients seen on time (%)			-0.6			
Sub-acute services for +65 years (per 1000 people)				71.7		
	-25	-15	-5	5	15	25

Notes:

1. Data used were the most recent available data for each indicator.

<sup>2.</sup> Elective surgery median waiting times are the time in days its takes for 50% of people on the waiting list to have undergone their procedure. See statistical supplement, table NHA.4.1, 9.1, 20.1, 34.1, 35.1, and 56.1 for data, technical notes and sources. Baseline data were reported in the council's 2008–09 report.



# Northern Territory— snapshot of performance against selected indicators

COAG

<u> Keform Council</u>

Table S.9 shows, compared to the overall Australian performance, in the Northern Territory:

- the melanoma incidence rate was 29.0% lower
- the proportion of adult daily smokers was 10.5% higher
- the rate of potentially avoidable deaths was 96.3% higher
- the proportion of emergency department patients seen on time was 24.2% lower
- the rate of sub-acute services provided to people aged over 65 years was 64.2% lower.

Since the baseline year, performance has improved in four of the seven selected performance indicators—see Figure S.9.

# Table S.9 Performance in Northern Territory compared to Australia<sup>1</sup>

Performance indicator	NT	Aust	+/-%	
Australians are born and remain he	althy			
Melanoma incidence rate (per 100 000 people)	34.6	48.8	-29.0	
Proportion of adult daily smokers (%)	21.1	19.1	+10.5	
Proportion of children immunised (%)	88.1	89.6	-1.7	
Australians receive appropriate high quality and affordable primary and community health				
Potentially avoidable deaths (per 100 000 people)	284.5	144.9	+96.3	
Australians receive appropriate high quality and affordable hospital and related care				
Elective surgery median waiting times (in days)	33	36	-8.3	
Proportion of emergency department patients seen on time (%)	52	68	-24.2	
Older Australians receive appropriate high quality and affordable health and aged care				
Sub-acute services for +65 years (per 1000 people)	26.4	73.9	-64.2	

## Figure S.9 Change in performance in Northern Territory from 2008–09 to this report

Performance indicator	Percentage change from baseline
Melanoma incidence rate (per 100 000 people)	43 0
Proportion of adult daily smokers (%)-2007-08 only	
Proportion of children immunised (%)	3.9
Potentially avoidable deaths (per 100 000 people)	-16.7
Elective surgery median waiting times (in days)	-23.3
Proportion of ED patients seen on time (%)	26.6
Sub-acute services for +65 years (per 1000 people)	-31.7
	-25 -15 -5 5 15 25

Notes:

<sup>1.</sup> Data used were the most recent available data for each indicator.

<sup>2.</sup> Elective surgery median waiting times are the time in days its takes for 50% of people on the waiting list to have undergone their procedure. See statistical supplement, table NHA.4.1, 9.1, 20.1, 34.1, 35.1, and 56.1 for data, technical notes and sources. Baseline data were reported in the council's 2008–09 report.



# Commonwealth-summary of performance against key indicators

The Commonwealth's performance has improved in eight of the 12 selected performance indicators, while there are no new data available for adult smoking rates—see Figure S.10.

# Figure S.10 Commonwealth—relative change in performance from 2008–09 report to 2010–11 report

Performance ind	Percentage change		
	Baseline year	Most recent	From baseline to latest data
Melanoma rate (per 100 000)* Adult daily smokers (%)* Child immunisation (%)*	47.9 19.1 82.4	48.8 na 89.6	<b>1.7</b> <b>8.7</b>
Bowel cancer screening rate (%)*	35.9	50.4	40.4
Potentially avoidable deaths (per 100 000)	149.6	144.9	-3.1
Potentially preventable hospitalisations (per 100 000)	2515.8	2464.4	-2.0
GP availability (major cities) (per 100 000)	95	95	0.0
GP availability (outer regional) (per 100 000)	73	76	4.1
GP bulk-billing (%)	79.9	80.9	1.3
Older people receiving HACC (per 1000)	284.3	292.8	3.0
Residential aged care (per 1000)	84.6	83.3	-1.5
Community aged care (per 1000)	23.5	27.7	17.9
			-25 -15 -5 5 15 25

### Notes:

1. Data used were the most recent available data for each indicator.

2. Potentially preventable hospitalisations are supplementary measure (a), as described and reported in the statistical supplement.

3. GP bulk billing data source (Commonwealth Department of Health and Ageing 2011).

4. Commonwealth benchmarks—Residential aged care: 88 per 1000—community aged care: 25 per 1000 population.

5. See statistical supplement, table NHA.4.1, 9.1, 12.1, 20.1, 22.4, C.1, 53.1, and 49.1 for data, technical notes and sources. Baseline data were reported in the council's 2008–09 report.

\* Indicators marked with an asterix are the joint responsibility of the Commonwealth and the State and Territory governments.

# Snapshots on social inclusion—progress toward eliminating differences in health outcomes

All governments have agreed that the healthcare system will strive to eliminate differences in health status of those groups currently experiencing poor health outcomes relative to the wider community. In this section, we provide snapshots of health outcomes for these groups that experience poorer health outcomes. We do this by comparing rate ratios of selected indicators in our baseline report, with rate ratios that draw on data reported in our current report.

# What are rate ratios?

A rate ratio provides a way to compare how often two things happen, by dividing one rate by another. The bigger the rate ratio, the bigger the difference in outcomes or frequency between the two things being compared.

For example, an indicator under the National Healthcare Agreement is the rate of low birth weight babies. Low birth weights are related to poorer health outcomes for the baby, through childhood and even into adulthood. In the following snapshot, we compare the rate of low birth weight babies born to Indigenous and non-Indigenous mothers.

We do this by dividing the Indigenous rate by the non-Indigenous rate to get the rate ratio.

- If the ratio equals 1 then there is no difference in the rate of low birth weight between Indigenous and non-Indigenous babies.
- If the ratio is greater than 1 then the rate for Indigenous babies is higher than the rate for non-Indigenous babies.
- If the ratio is less than 1 then the rate for Indigenous babies is lower than the rate for non-Indigenous babies.

Nationally, 10.9% of Indigenous babies are born at a low birth weight. The equivalent rate for non-Indigenous babies is 4.5%. Therefore, the rate ratio of Indigenous to non-Indigenous low birth weight babies is 10.9 (for Indigenous babies) divided by 4.5 (for non-Indigenous babies), which equals 2.4. This means that Indigenous babies are 2.4 times more likely to be of low birth weight than non-Indigenous babies.

# What do we compare?

In the following snapshots, we compare the rate ratios in our baseline report (2008–09) to the rate ratios in this report (2010–11). The comparisons we make in the snapshots are:

- Indigenous Australians to other Australians.
- people living in the most disadvantaged fifth of Australia versus those living in the least disadvantaged fifth
- people living in 'outer regional' areas compared to those living in 'major cities'. We use 'outer regional' (an ABS classification) as a proxy for rural and remote areas—this classification system is discussed further in Appendix E of our report.

## Correlations across groups with poorer health outcomes

It is worth keeping in mind that there are overlaps between these groups. That is to say, while we analyse each separately, there are many instances where the same communities, areas and individuals fall into more than one disadvantaged group. In turn, there will often be a correlation in the results across the disaggregation.

For example, almost half of all people living in very remote areas are Indigenous. Therefore, health outcomes for Indigenous Australians will often be reflected in health outcomes for Australians living in those areas. Similarly, almost 40% of the areas deemed the most socio-economically disadvantaged are also classified as 'very remote'.

# Outcomes against selected indicators by Indigenous Status

Figure S.11 shows that there has been little substantive change in the rate ratio—the Indigenous rate divided by the 'other Australian' rate—for key indicators since the baseline year.

- Indigenous Australians remain:
  - around three times more likely than other Australians to be hospitalised for potentially preventable causes
  - just over twice as likely to be hospitalised for injury and poisoning.
- Indigenous babies are still:
  - around two and half times more likely to be born with a low weight
  - over five times more likely than non-Indigenous babies to be born to a teenage mother.

## Figure S.11 Key healthcare indicators by Indigenous status

Selected indicators	Performance in this report		Ratio of Indigenous to other
	Indigenous	Other	Australian performance
Babies born with low birth weight (%)	10.9	4.5	
Teenage birth rates (per 1000 females)	72.6	13.6	
Incidence of chlamydia (per 100 000)*	1268.2	332.6	
Potentially preventable hospitalisations (per 100 000)*	7119.5	2402.1	
Elective surgery waiting times (median days)	39	36	■ Baseline
People 65yrs+ receiving sub- acute services (per 1000)	36.3	76.4	Latest
Hospitalisation for injury and poisoning (per 1000)*	48.1	24.5	
* Data are age standardised.			0 1 2 3 4 5 6

Notes:

1. Data used were the most recent available data for each indicator.

2. See statistical supplement, table NHA.1.1, 61.1, 2.3, 22.5, 34.3, 56.1 and 62.1 for data, technical notes and sources. 'Other Australian' includes people for whom Indigenous status is not known—for some indicators, we can report specifically on non-Indigenous Australians and this is done in the respective chapters.


### Outcomes against selected indicators by socio-economic status

Figure S.12 compares the most disadvantaged fifth of Australia to the least disadvantaged fifth. It shows little progress in improving outcomes across selected indicators for people from the most socio-economically disadvantaged areas.

- People in the most disadvantaged areas continue to be hospitalised for potentially preventable conditions at a rate 1.5 times higher than for the least disadvantaged areas.
- While the ratio is smaller than others—and is also slightly smaller than it was in the baseline year—there remains a difference in cancer survival rates, with people from the most disadvantaged areas having lower survival rates than in the least disadvantaged.
- While the teenage birth ratio has decreased, the rate in disadvantaged areas remains 8 times higher than in the least disadvantaged areas.
- People aged 65 years and over in the most disadvantaged areas received sub-acute services at less than half the rate—with a ratio of 0.43—of those in the least disadvantaged areas.

Selected indicator	Performance in this report		Ratio of most to least disadvantaged performance	
	Level of disadvantage			
	Most	Least		
Babies born with low birth weight (%)	5.9	3.7		
Teenage birth rates (per 1000 females)	29.8	3.9		<b>8.0</b> 7.7
Incidence of chlamydia (per 100 000)	345.8	272.5		-
Potentially preventable hospitalisations (per 100 000)	3002.5	1909.1		
Elective surgery waiting times (median days)	40	30		_
Cancer survival (5–year relative %)	62.8	70.5		■ Baseline
People 65yrs+ receiving sub- acute services (per 1000)	51.2	119.5		
Hospitalisation for injury and poisoning (per 1000)	27.5	20.9		
			0.0	1.0 2.0

#### Figure S.12 Key healthcare indicators by socio-economic status

#### Notes:

1. The ratio is the most disadvantaged rate divided by least disadvantaged rate. It is also known as the rate ratio.

- 2. Data used were the most recent available data for each indicator.
- 3. See statistical supplement, table NHA.61.1, 2.3, 22.5, 34.7, 44.1, 56.1 and 62.1 for data, technical notes and sources. See statistical supplement, table Additional.2 for Babies born with low birth weight data.

### Outcomes against selected indicators by remoteness status

Figure S.13 shows results for selected indicators by remoteness by comparing the ratios of outcomes in outer regional areas to outcomes in major cities.

- People in outer regional areas continue to be hospitalised for potentially preventable causes at a higher rate than in major cities, with a rate 1.25 times higher for people in outer regional areas compared to those in major cities.
- The rate of hospitalisation for injury and poisoning for outer regional areas was 1.34 times higher than major cities in the baseline year, which was reduced to 1.27 higher in the most recent year.
- The ratio of sub-acute services received by people aged 65 years between outer regional areas and major cities remained at 0.3, meaning people in outer regional areas received these services at a rate slightly less than a third of that in major cities.
- People in outer regional areas waited around 10% longer for elective surgery than people in major cities in the most recent year, a noticeable increase in the ratio from the baseline year.

Selected indicators	Performance in this report		Ratio of outer regional to major cities performance	
	Outer regional	Major cities		
Babies born with low birth weight (%)	5.5	4.4		
Teenage birth rates (per 1000 females)	28.5	11.8		<b>2.4</b> 2.4
Incidence of chlamydia (per 100 000)	430.9	290.3		
Potentially preventable hospitalisations (per 100 000)	2879.2	2311.7		
Elective surgery waiting times (median days)	39	35		
Cancer survival (5–year relative rate)	64.6	66.3		■ Baseline
People 65yrs+ receiving sub– acute services (per 1000)	27.7	91.8		Latest
Hospitalisation for injury and poisoning (per 1000)	29.0	22.7		
			0	1 2

#### Figure S.13 Key healthcare indicators by remoteness

Notes:

1. Data used were the most recent available data for each indicator.

2. See statistical supplement, table NHA.1.3, 61.1, 2.3, 22.5, 34.6, 44.1, 56.1, 62.1 for data, technical notes and sources.



### Recommendations

#### Box R.1 Recommendation 1

The COAG Reform Council recommends that COAG **note** that for Australians living outside major cities, in socio-economically disadvantaged areas, and for Indigenous Australians:

- there has been some progress in achieving more equitable health outcomes
- that despite these improvements, overall these Australians continue to have poorer health outcomes and poorer access to healthcare, including:
  - longer elective surgery waiting times
  - higher rates of low birth weight babies
  - higher rates of teenage births
  - higher rates of most select cancers and sexually transmissible infections
  - higher rates of potentially preventable hospitalisations
  - higher rates of hospitalisation for injury and poisoning.

#### Box R.2 Recommendation 2

The COAG Reform Council recommends that COAG:

- **note** that, for some existing National Partnerships, we cannot link activities or government performance to the objectives of the related National Agreement
- **agree** that activities under future National Partnerships covered by National Agreements should clearly link to the objectives of the related National Agreement.





### Chapter 1. About this report

### 1.1 National Healthcare Agreement

Healthcare plays an essential role in the overall wellbeing of Australians and the Australian economy. How healthy we are today affects our health as we age and the cost of healthcare to governments in the future. The Commonwealth, State and Territory governments have all recognised the need to invest in healthcare to lift outcomes for all, but in particular for disadvantaged groups.

The National Healthcare Agreement—the Agreement between the Commonwealth, State and Territory governments in healthcare—was originally signed in 2008 and updated in August 2011. The overarching objective of the National Healthcare Agreement is to improve health outcomes for all Australians and the sustainability of Australia's health system (COAG 2011c).

Figure 1.1 shows the structure of the Agreement, with the seven objectives shown down the left hand side, accompanied by associated outcomes, progress measures and outputs.

### 1.2 How we report on performance

Each year, the COAG Reform Council (the council) assesses and publicly reports on the performance of governments against the objectives and outcomes of the National Healthcare Agreement. We report directly to COAG and are independent of individual governments.

This performance report for 2010–11 is our third annual report on the National Healthcare Agreement. All three reports are available on our website at <u>www.coagreformcouncil.gov.au</u>.

In our 2009–10 report we foreshadowed a shift in 2010–11 from reporting on status to increasingly assess progress over time and identify trends. For 2010–11, we have at least three years of time series data for most, although not all, of the indicators—for a small number of indicators we have four years of data.

Accordingly, in this 2010–11 report we will focus on trends in the most robust and well-defined performance indicators that are highly relevant to the overall objectives of the National Healthcare Agreement.

In line with this focus, Figure 1.1 shows the structure of the Agreement and is colour-coded to represent what we reported on, what we choose not to report on, and what we cannot report on this year.

Figure 1.1 Structure of the National Healthcare Agreement, 2011					
Кеу	We report fully or partially on this performance measure this year	We choose not to report on the outcome or indicator this year	We cannot report on the outcome or indicator this year		
Objectiv	ve Outcome	Progress measure	Output		
Prevention	Children are born and remain healthy.	Proportion of babies born of low birth weight.	Immunisation rates for vaccines in the national schedule.		
	Australians have access to the support, care and education they need to make healthy choices.	Incidence/prevalence of important preventable diseases.	Cancer screening rates (breast, cervical, bowel).		
	Australians manage the key risk factors that contribute to ill health.	Risk factor prevalence.	Proportion of children with fourth–year developmental health check.		
	The primary healthcare needs of all Australians are met effectively through timely and quality care in the community. People with complex care needs can access comprehensive, integrated and coordinated services.	Access to general practitioners, dental and other primary healthcare professionals.	Number of primary care services per 1000 of population (by location).		
		Proportion of people with diabetes with HbA1c below 7 per cent.	Number of mental health services.		
د		Life expectancy (including the gap between Indigenous and non–Indigenous).	Proportion of people with		
munity health		Infant/young child mortality rate (including the gap between Indigenous and non–Indigenous).	whose care is planned (asthma, diabetes, mental health).		
l con		Potentially avoidable deaths.			
Primary and		Treated prevalence rates for mental illness.	Number of women with at least one antenatal visit in the first trimester of pregnancy.		
		Selected potentially preventable hospitalisations.			
		Selected potentially avoidable general practitioner–type presentations to emergency departments.			



Hospitals and relate care

Australians receive high quality hospital and hospital– related care that is appropriate and timely.	Waiting times for services.	Rates of services provided by public and private hospitals per 1000 weighted
	Selected adverse events in acute and sub–acute care settings.	population by patient type.
	Unplanned/unexpected readmissions within 28 days of selected surgical admissions.	
	Survival of people diagnosed with cancer (five–year relative rate).	
Older Australians receive high quality, affordable health and aged care services that are appropriate to their needs and enable choice and seamless, timely transitions within and across sectors.	Residential and community aged care services per 1000 population aged 70+ years.	Number of older people receiving aged care services by type (in the community and residential settings).
		Number of aged care assessments conducted.
		Number of younger people with disabilities using residential, CACP and EACH aged care
	Selected adverse events in residential care.	services.
		Number of people aged 65+ receiving sub–acute and rehabilitation services.
		Number of hospital patient days by those eligible and waiting for residential aged care.



	All Australians experience best practice care suited to their needs and circumstances informed by high quality health information.	Nationally comparative information that indicates levels of patient satisfaction around key aspects of care they received.		
	Patients experience seamless and safe care when transferring between settings.			
	Indigenous Australians and	Age standardised mortality.	Indigenous Australians in	
health	remote areas or on low incomes achieve health outcomes comparable to the	Access to services by type of service compared to need.	the nearth workforce.	
snoue	broader population.	Teenage birth rate.		
Indige		Hospitalisation for injury and poisoning.		
		Children's hearing loss.		
	Australians have a sustainable health system that can respond and adapt	Net growth in health workforce (doctors, nurses, midwives, dental practitioners, pharmacists).	Number of accredited/filled clinical training positions.	
	to future needs.	Allocation of health and aged care expenditure.		
		Cost per casemix–adjusted separation for both acute and non–acute care episodes.		

Source: COAG (2008) National Healthcare Agreement.

#### **Treatment of data**

We recognise that some of the data we report may look out of date. The council uses the best data that are available and approved for use in our reports by governments. The data used in this report are derived from a variety of administrative datasets and surveys.

There are a number of issues associated with using these data for comparing the performance of jurisdictions, which vary according to the data source. Appendix C explains these issues in more detail, and notes are provided against each indicator as required throughout the report.

Some issues with data quality are described below.

- All data derived from surveys have a certain amount of error, so sample survey data presented in this report consider relative standard errors and confidence intervals.
- Where possible, analysis of change over time has been statistically tested for significance. We only use the word 'significant' in its statistical context—discussed further below.

Patient experience

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Social Inclusion and

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- Some adjustments or caveats are provided when reporting change over time for populations with small numbers.
- Some administrative data may not be comparable between jurisdictions or over time.

#### What is a 'significant difference' or a 'significant change'?

In this report, the word 'significant' has a specific statistical meaning. This meaning applies to data that are collected using surveys. Survey data contain a certain degree of error, because a survey will only include a sample of a population rather than the total population. Surveying just a sample of a population introduces the risk that results might not accurately reflect the population as a whole, but simply reflect who is included in the sample.

In statistics, 'significant' differences are those which are 'real' and unlikely to have occurred by chance. It does not necessarily mean 'significant' in the everyday sense of the term. In some cases, apparently small differences between numbers can be statistically 'significant'. In other cases, we might not be able to describe two numbers that look very different as being 'significanty'.

The way that statistical significance is determined is explained further in Appendix C. Testing for statistical significance is done for the council by the Australian Bureau of Statistics.

#### Box 1.1 Have we used the most recent data?

This report is for the 2010–11 year, though much of the data are from earlier than this.

The data we report are collated and provided to us by the Steering Committee for the Review of Government Service Provision. The data reported are always the most recent that were available to the Steering Committee in time to provide to us for this report.

In some cases, the data may out of date. This is partly explained by the time that can be needed to check and clean large data sets. The council has previously highlighted the importance of data being as recent as possible.

In some instances, more recent data may be published elsewhere which were not available in time for inclusion in this report. The websites of relevant data agencies, such as the Australian Bureau of Statistics and Australian Institute of Health and Welfare, can be checked for more up to date data.

### 1.3 Outcomes reporting in the 2010–11 report

As seen in Figure 1.1, the National Healthcare Agreement is structured around seven objectives:

- Prevention: Australians are born and remain healthy
- **Primary and community health:** Australians receive appropriate high quality and affordable primary and community health services
- **Hospital and related care:** Australians receive appropriate high quality and affordable hospital and hospital-related care
- Aged care: Older Australians receive appropriate high quality and affordable health and aged care services
- **Patient experience:** Australians have positive health and aged care experiences which take account of individual circumstances and care needs
- Social inclusion and Indigenous health: Australia's health system promotes social inclusion and reduces disadvantage, especially for Indigenous Australians
- Sustainability: Australians have a sustainable health system (COAG 2011c).

In this report, as well comparing, where possible, change in performance since our 2008–09 baseline report, we also analyse changes for disadvantaged groups—Indigenous Australians, people from low socio-economic backgrounds and people living in regional and remote areas.

Chapters 2 to 8 present the comparative analysis of performance against six of the seven objectives under the National Healthcare Agreement.

Chapter 9 discusses the performance benchmarks agreed under the National Healthcare Agreement

Chapter 10 discusses National Partnerships that support the National Healthcare Agreement.

There are also seven appendices:

- Appendix A shows elective surgery performance by State and Territory for select procedures.
- Appendix B discusses analysis of change in cancer incidence rates through the use of variability bands.
- Appendix C outlines contextual factors relevant to jurisdictions.
- Appendix D summarises roles and responsibilities of governments under the National Healthcare Agreement.
- Appendix E discusses the treatment of data issues raised in this report.
- Appendix F lists the references used.
- Appendix G lists the tables, figures and boxes used in the report.

The statistical supplement includes the performance data provided by the Steering Committee, including data quality statements, and any additional data we have used.



### 1.4 Review of performance reporting framework

In February 2011, COAG agreed to review the six National Agreements under the Intergovernmental Agreement on Federal Financial Reform (IGA FFR), including the National Healthcare Agreement.

This review is due to be completed by the end of April 2012. As this review is still being done, the council has chosen not to make any further recommendations on improving the current performance reporting framework in this report.

### 1.5 Reporting on social inclusion

As shown in Figure 1.1, promoting social inclusion is an objective of the National Healthcare Agreement. In our previous reports, the council has undertaken comparative analysis of performance against the indicators agreed for this objective. This year, we have chosen not to report separately on this objective.

This is because data were either not available, reported elsewhere, or showed little change in performance over the reporting period.

Data were provided for four of the six indicators.

- We report two indicators—age-standardised mortality and the rate of hospitalisations for injury and poisoning— in the *National Indigenous Reform Agreement: Performance Report 2010–11*, which is released at the same time as this report and available on our website, www.coagreformcoucil.com.au.
- One indicator—Indigenous Australians in the health workforce is not reported due to poor data quality. Better quality data may be available in future years.
- No data were available for the rate of access to services by type of service compared to need and for rates of children's hearing loss.
- The only indicator under this objective for which we have data not reported elsewhere is teenage birth rates—we discuss these data briefly in the preventive health chapter.

However, woven throughout the report are findings that relate to outcomes for Australians living in remote areas, in socio-economically disadvantaged areas, and for Indigenous Australians. Wherever data are adequate, we have reported outcomes as they relate to these groups, primarily focusing on where performance has changed since the baseline year.

#### Previous recommendation to COAG on the need for more rural and remote data

In our previous report, the council recommended to COAG that governments provide additional data for a range of indicators by areas of geographic remoteness. At its meeting on 19 August 2011, COAG agreed to this recommendation. For this report, we received additional data on only one indicator—end-stage kidney disease, as reported in chapter 2.

We remain of the view that these additional data are important to understanding how effectively the health and aged care system services Australians in rural and remote areas, and we expect to receive additional data for future reports.



### Chapter 2. Preventive health

### At a glance

#### Child and adult immunisation

• Child immunisation rates are around 90.0% across all States and Territories, however older adult rates are low and have fallen lower since data were last available—from 58.8% in 2006 to 50.6% in 2009.

#### Incidence rates of select cancers

- Nationally, incidence rates of breast cancer in females increased between 2007 and 2008—from 109.2 per 100 000 to 115.4 per 100 000. However, it should be noted that year to year fluctuations in cancer incidence rates are usual, though the overall trend has been downward over the past decade; hence, this increase should be interpreted with caution.
- Incidence rates are higher than the national rate:
  - in Queensland, for lung cancer and melanoma
  - in Tasmania, for bowel cancer
  - in the Northern Territory, for lung cancer.
- Lung cancer was higher in very remote areas than anywhere else—61.4 per 100 000 compared to 42.2 per 100 000 in major cities.

#### Incidence rates of sexually transmissible infections

• Notification rates for chlamydia and gonoccocal infection both increased nationally by more than 20% from the baseline—these rates increase significantly with remoteness and among the most disadvantaged Australians, as well as among Indigenous Australians.

### 2.1 About this chapter

All Australian governments have agreed that Australia's health system should, among other things:

...focus on the prevention of disease and injury and the maintenance of health, not simply the treatment of illness (COAG 2011c).

To promote this intent, COAG agreed that prevention should be an objective of the National Healthcare Agreement—this is expressed in the Agreement as the long-term objective that 'Australians are born and remain healthy' (COAG 2011c). This chapter reports on this objective, which is supported by three intended outcomes:

- children are born and remain healthy
- Australians have access to the support, care and education they need to make healthy choices
- Australians manage the key factors that contribute to ill health.

Under the National Healthcare Agreement, preventive health is the joint responsibility of all governments. This includes public health programs, such as immunisation and screening programs, and social marketing and other programs that encourage healthy lifestyle choices.

#### How do we report on preventive health?

Governments agreed to 13 performance indicators to measure progress toward the outcomes and the overall objective of preventive health.

What we report on this year

In this report, we analyse two performance indicators.

- Child and adult immunisation rates—this indicator measures the success of public health programs aimed at reducing the rates of vaccine preventable diseases.
- Incidence rates of selected preventable diseases—includes sexually transmissible infections, select cancers, and end-stage kidney disease. These diseases are either potentially preventable or amenable to early intervention and the incidence rates can reveal the effectiveness of preventive health programs and practices.

#### What we do not report on this year

Because the focus of this report is on those indicators where performance has changed from previous years, or where new data are available for the first time, we do not report all of the 13 performance indicators. Performance indicators we do not report in detail in this chapter are:

- rates of low birth weight babies—this remains constant at 4.7% nationally.
  - Related to this indicator as a measure of outcomes for children is the rate of births to teenage mothers—an indicator under the social inclusion objective. This rate has fallen from 16.9 per 1000 females aged 15–19 years in both 2007 and 2008, to 16.1 in 2009. This reflects a longer term decline in teen births
- participation rates for screening of female breast and cervical cancer—both rates are stable, compared to rates reported in the council's previous reports (respectively, 55% and 57.4% nationally in 2009)
- participation rates for screening of bowel cancer—this rate was compromised in 2009 and 2010 by the well-publicised suspension of the National Bowel Screening Program due to faulty kits (we should be able to report more reliable data in future reports)
- rates of fourth year child developmental health checks—while these rates appear to have increased, the data are flawed as they only include checks claimed under Medicare—checks conducted under State and Territory funded programs are not included.

The full data for these performance indicators are included in the statistical summary accompanying this report.



What we cannot report on this year

• No new data are available for rates of obesity, adult smoking, or risky levels of alcohol consumption.

In last year's report, the council encouraged jurisdictions and data agencies to consider collecting more frequent data on these behaviours. We especially suggested the need for more frequent data—though not necessarily annual—on smoking rates, which is the greatest single contributing risk factor to the burden of disease in Australia (Colin, Mathers *et al.* 2003).

There remains no agreed measure for reporting the proportion of men having unprotected anal intercourse.

### 2.2 Immunisation rates

#### Child immunisation-keeping rates high

Australia has had great success in recent years in achieving high rates of child immunisation, measured as the proportion of children aged five who are fully vaccinated according to the national immunisation schedule.

Our 2009–10 report showed that all jurisdictions had increased their child immunisation rates from 2009 to 2010. With rates for all jurisdictions hovering at around 90%, the challenge becomes to maintain immunisation rates at these high levels.

In 2011, jurisdictions generally maintained their 2010 performance, with any changes being less than 1%. These results are illustrated in Figure 2.1 below.

# Figure 2.1 Child immunisation rates, by State and Territory, at 30 June each year for 2009 to 2011 for children aged 5 years



Notes:

- 1. The NSW performance is indistinguishable from the Australian performance.
- 2. See statistical supplement NHA table 9.1 for data and technical notes.

Source: DoHA (unpublished) Australian Childhood Immunisation Register.



#### Good equality in child immunisation rates

Nationally, child immunisation rates are consistently high regardless of the area of remoteness or socioeconomic status. Increases in rates have been consistent across disaggregations from 2009 to 2011.

No State and Territory had a child immunisation rate below 80% for any area of remoteness. There was also little variation within jurisdictions in rates of child immunisation by socioeconomic status.

# Adult immunisation—supplementary baseline data shows significant falls nationally in adult immunisation against influenza and pneumococcal disease

As with young children, adults are able to access free vaccines under the National Immunisation Program to protect against the relevant diseases to which different cohorts are susceptible.

Last year, we reported that the estimates for the rates of immunisation among adults had fallen from 58.8% in 2006 to 50.6% in 2009. Without confidence intervals for the 2006 data, the council could not determine whether this fall was significant.

This year, the council has received confidence intervals for its 2006 baseline data. This allows for a more robust comparison of the data. Figure 2.2 shows that:

- nationally, the fall in adult immunisation between 2006 and 2009 was statistically significant
- adult immunisation fell significantly in the two most populous states—NSW and Victoria
- in all other jurisdictions, while the 2009 estimates were lower than 2006, we cannot say that these falls were statistically significant.

Figure 2.2 also shows that between 2006 and 2009, adult immunisation rates:

- fell significantly across major cities, inner regional, and outer regional areas, though not in remote/very remote areas
- fell significantly in the first, second and fourth (of five) most disadvantaged areas of Australia (that is, 'quintiles' 1, 2 and 4).



#### Figure 2.2 Adult immunisation rates, by State and Territory, by remoteness, by socioeconomic status, 2006 and 2009





Notes:

1. See statistical supplement table NHA 9.5 for data and technical notes. Source: AIHW (unpublished) 2006 and 2009 Adult Vaccination Surveys.

### 2.3 Cancer incidence rates

The council has been asked to report on incidence rates of five types of cancer: bowel, lung, melanoma, female breast, and cervical. Incidence of these cancers can reflect medium to long-term effectiveness in preventive health programs, such as anti-smoking campaigns, as well as improved diagnostic procedures and screening programs for some cancer types.

The most recent data available for cancer incidence rates are from 2008. The council will discuss with data agencies how more recent data may be made available for future reports.

#### Change in cancer incidence rates nationally

Incidence rates of breast cancer in females statistically significant increase between 2007 and 2008—from 109.2 per 100 000 to 115.4 per 100 000. However, it should be noted that year to year fluctuations in cancer incidence rates are usual, though the overall trend has been downward over the past decade. Hence, this increase should be interpreted with caution.

The remaining four types of select cancers did not have national incidence rates significantly different to those in 2007 or to the council's baseline reporting year of 2006.



#### Figure 2.3 Incidence rates, select cancers, 2006 to 2008

Notes:

1. See statistical supplement table NHA 4.1 for data and technical notes.

Source: AIHW (unpublished) Australian Cancer Database; ABS (unpublished) Estimated Resident Population, 30 June 2008.



#### Cancer incidence variation between jurisdictions

Figure 2.4 shows that in 2008:

- Tasmania had a significantly higher rate of bowel cancer than the national rate
- Queensland had a significantly higher rate of melanoma than the national rate
- Queensland and the Northern Territory each had significantly higher rates of lung cancer than the national rate
- the incidence rate of melanoma was significantly higher in Queensland than in the baseline year of 2006.

# Figure 2.4 Select cancer incidence rates—summary of significant results, by jurisdiction, 2008



Notes:

1. For comparison, Australian rates are shaded in dark blue.

2. See statistical supplement table NHA 4.1 for data and techincal notes

Source: AIHW (unpublished) Australian Cancer Database; ABS (unpublished) Estimated Resident Population, 30 June 2008.

#### Cancer incidence rates and remoteness

Figure 2.5 shows cancer incidence rates—expressed per 100 000 population—that were statistically significant in 2008 by areas of remoteness.

- Lung cancer incidence rates were significantly higher in very remote (61.4 per 100 000) areas compared to major cities (42.2).
- Melanoma incidence rates were:
  - in major cities, significantly lower compared to the rate for Australia
  - in inner regional areas (56.0), significantly higher than the national rate (48.8), as well as significantly higher than the rate in major cities (46.0) and very remote areas (32.4)
  - in outer regional areas (51.9), significantly higher than in major cities and very remote areas, though not higher than the overall rate for Australia
  - in very remote areas, significantly lower than any other areas.
  - Bowel cancer incidence rates in major cities fell from 62.4 in 2007 to 59.1 in 2008.
- Female breast cancer incidence rates rose in major cities and remote areas from 2007.
- Bowel cancer and female breast cancer in very remote areas rose compared to other areas, though not when compared against themselves—this is discussed in Appendix B.

### Figure 2.5 Select cancer incidence rates—summary of significant results, by remoteness, 2008



Notes:

<sup>1.</sup> See statistical supplement table NHA 4.1, 4.3 and 4.6 for data and techincal notes

<sup>2. &#</sup>x27;Breast' is breast cancer in females and is expressed as a rate per 100 000 female population.

Source: AIHW (unpublished) Australian Cancer Database; ABS (unpublished) Estimated Resident Population, 30 June 2008.



#### Cancer incidence rates and socioeconomic status 2006 to 2008

Figure 2.6 shows national incidence rates for female breast cancer, melanoma and lung cancer by socio-economic status for the three years from 2006 to 2008.

- In each of the three years, there was an apparent relationship between incidence rates and socio-economic status for these three types of cancers.
- Melanoma incidence rates and female breast cancer incidence rates were lowest in most disadvantaged areas and highest in the least disadvantaged areas.
- Lung cancer incidence rates were highest in the most disadvantaged areas.



#### Figure 2.6 Incidence rates for select cancers, by socioeconomic status, 2006 to 2008

#### Note:

1. See statistical supplement, tables NHA.4.5, NHA.4.8 and NHA.4.11 for data, technical notes and sources.

### 2.4 Sexually transmissible infections and blood borne viruses

This performance indicator reports the incidence rate of new cases of six specified sexually transmissible infections and blood-borne viruses that are, to a large extent, preventable. Incidence is measured by the number of notifications of new cases made to health authorities. Because notifications are used as a proxy for incidence, the rates will likely be understated as they only include cases where the individual sought treatment from a health professional. For technical reasons, complete NSW data for hepatitis B and C were not available for reporting—this has also affected national rates.

#### Change in notification rates from 2008 to 2010

Figure 2.7 shows the relative change in notification rates for each of the four remaining conditions from the baseline year of 2008 until 2010. It should be kept in mind that while some of these relative changes look large, they can be based on small numbers of cases, particularly in less populous jurisdictions—this makes rates highly volatile, as a few extra cases can result in a very large proportional variation. The broken bar in the 'Gonococcal infection' figure represents a result that goes beyond the selected scale.

Nationally, from 2008 to 2010, notification rates:

- decreased 19.5% for syphilis
- increased 0.5% for HIV
- increased 20.4% for chlamydia
- increased 23.3% for gonococcal infection.





Note:

1. See statistical supplement table NHA 2.1 for 2010 for data, technical notes and sources.



In 2010, the largest number of notifications was for chlamydia (74 305) and gonococcal infection (9 970)—both HIV and syphilis had far fewer (1 044 and 1 101 notifications, respectively).

In regard to these two most notified conditions, from 2008 to 2010:

- the national notification rate of gonococcal infection increased 23.3% from 36.2 per 100 000 to 44.6 per 100 000
  - among States and Territories, the largest increases in the rate were in the ACT (149.9% increase), Victoria (82.6%) and NSW (66.9%), while Western Australia (-22.5%), Tasmania (-23.9%), and South Australia (-8.8%) each had a fall in rates
- the national notification rate of chlamydia increased 20.4% from 272.3 per 100 000 to 327.8 per 100 000
  - among States and Territories, the largest increases in the rate were in Victoria (26.9%) and Tasmania (33.3%)—no State or Territory had a fall in rates of chlamydia over this period.

# Chlamydia and gonococcal infection—increased among the most remote and most disadvantaged Australians from 2008 to 2010

Figure 2.8 shows the notification rates of chlamydia and gonococcal infection by areas of remoteness from 2008 to 2010. The remoteness gradient is stark—as remoteness increases, notification rates increase exponentially, a result that became more pronounced between 2008 and 2010. In 2010:

- the notification rate of chlamydia was 290.3 per 100 000 in major cities—rising to 1499.1 in very remote areas
- the notification rate of gonococcal infection was 32.9 per 100 000 in major cities—rising almost 50–fold to 1050.8 in very remote areas.

While incidence rates in remote regions may reflect a higher underlying disease incidence compared with urban areas, enhanced opportunistic and targeted screening programs, active contact tracing and in some instances community-wide screening programs in these areas are also contributors (NCHECR 2010).

Figure 2.9 shows the same notification rates by level of socioeconomic disadvantage. While rates for both chlamydia and gonococcal infection rise from 2008 to 2010, there is not a clear gradient for socioeconomic status and notification rates. The exception to this is for those living in the most disadvantaged tenth of areas in Australia, where the rate peaks for both conditions.

#### In 2010:

• the notification rate of chlamydia among those living in the most disadvantaged tenth of the Australia was 395.6 per 100 000—compared to 292.2 in the second most disadvantaged tenth, and an overall national rate of 321.5



• the notification rate of gonoccocal infection in the most disadvantaged tenth of the country was 110.8 per 100 000—compared to 27.6 in the second most disadvantaged tenth and an overall rate of 42.6.





Note:

1. See statistical supplement tables NHA 2.3 and NHA 2.5 for for data, technical notes and sources.





Note:

<sup>1.</sup> See statistical supplement tables NHA 2.4 for data, technical notes and sources.



### 2.5 End–stage kidney disease

#### New data on incidence rates by remoteness and socioeconomic status

End-stage kidney disease is the most severe form of chronic kidney disease. People with end-stage kidney disease require either dialysis or a kidney transplant to survive more than a few weeks. Modifiable risk factors for end-stage kidney disease include being overweight, physical inactivity, poor nutrition, tobacco smoking, diabetes, and high blood pressure.

Data for this indicator were not updated for this report as the AIHW did not have access to 2008 and 2009 unit record mortality data required to calculate the overall indicator. However, we understand that data for 2008—as well as possibly for 2009 and 2010—will be available for the council's next report.

While not receiving new jurisdictional level data, we have for the first time received new national-level data on end-stage kidney disease by area of remoteness and socioeconomic disadvantage.

Figure 2.10 summarises the relationship between rates of end-stage kidney disease and remoteness and socioeconomic status.

For the three-year period 2005 to 2007, the incidence rate of end-stage kidney disease:

- in the most disadvantaged fifth (25.8 per 100 000) of Australia, was significantly higher than in the least disadvantaged fifth (16.3) and the overall national rate (20.9)
- in those areas classified as very remote, was significantly higher (81.1 per 100 000) than in major cities (19.9).

# Figure 2.10 Incidence of end-stage kidney disease, by socioeconomic status and remoteness, 2005–2007



Notes:

- 1. The overall rate for Australia is for 2007. Other rates are for the period 2005–2007.
- 2. See statistical supplement, table NHA.3.2 for for data, technical notes and sources.



### Chapter 3. Primary and community care

### At a glance

# Infant death rates improved, but child death rates have increased in some jurisdictions

- Infant death rates (<1 year) improved, from 4.4 mortalities per 1000 births in 2006–08 to 4.2 in 2008–10, particularly in the Northern Territory (from 7.8 to 6.9)</li>
- But child death rates (1–4 years) have increased in Victoria, Western Australia, Tasmania and the Northern Territory. However, these rates are based on small numbers.

#### There were 2.1 million potentially avoidable emergency department visits

• This represents an increase of 5.6% over the 2008–09 baseline, with the rate of increase greatest in very remote areas at 17.7%.

# The proportion of people that delayed or did not see a GP due to cost has increased

- The proportion of people that delayed or did not see a GP due to cost has increased from 6.4% in 2009 to 8.7% in 2010–11
- Even more people deferred seeing a dentist due to cost (26.4%) compared to other health professions in 2010–11. Specialists were the second highest, at 13.2%.

### 3.1 About this chapter

Primary and community health is the most frequently used part of the health system. It is important in preventative healthcare and in the detection and management of illness and injury.

Primary and community health is also a major determinant of the effectiveness of other parts of the health sector, including, for example, timely referral, through early intervention or education to reduce risky behaviours.

Governments have agreed that an objective of the National Healthcare Agreement is that:

Australians receive appropriate high quality and affordable primary and community health services.

The Commonwealth is responsible for funding access to private medical care and ensuring equitable and timely access to affordable primary care services, predominantly through general practice (COAG 2011c). The States and Territories have responsibility for community healthcare (COAG 2011c).

While these responsibilities are clearly stated, the interplay between various parts of the health sector can be intricate, with performance in one part of the sector having the potential to affect



outcomes in another. This complex interplay should be kept in mind when considering the results reported in this chapter.

#### How we report on primary and community care

COAG selected eight progress measures and four outputs to report against the two outcomes that primary healthcare needs of all Australians are met effectively through timely and quality care in the community; and that people with complex care needs can get comprehensive, integrated and coordinated services.

What we report on this year

The indicators discussed in detail are:

- life expectancy and mortality indicators, including:
  - avoidable deaths
  - infant and young child mortality rates
  - potentially avoidable deaths
- rates at which people defer or avoid altogether medical care for financial reasons
- potentially avoidable GP-type presentations to hospitals
- rates at which services are provided, including:
  - dental services
  - optometry services
  - treatment rate for mental illness (reported in chapter 4)
  - public sector community mental health services (reported in chapter 4)
  - private sector mental health services (reported in chapter 4)
  - people with mental illness with general practitioner care plans (reported in chapter 4)
- number of women with at least one antenatal visit in the first trimester of pregnancy.

What we do not report on this year

The following indicators were not reported in this year's publication. Performance under these measures has remained stable, with no or minimal change in performance compared to the data last reported by the council.

- Waiting time for GPs is stable, with 60.2% of people reporting that they were seen by a GP within four hours.
- Selected potentially preventable hospitalisations—this is similar to the rate in the council's previous reports, at 2464.4 per 100 000 population.
- Rates of service provision for GPs and specialists—at 5598.9 GP services per 1000 population and 6835.5 specialist services, these rates are similar to the rates reported in the council's previous reports.



• Proportion of people with diabetes with a GP annual cycle of care—at 18.6%, this is similar to the rate reported in the council's previous report.

The full data for these performance indicators are included in the statistical summary accompanying this report.

What we cannot report on this year

There are currently no data available to report on waiting times for public dentistry.

No new data are available for the proportion of people with a written asthma plan and the proportion of people with diabetes with HbA1c below 7%.

#### 3.2 Life expectancy and mortality

Life expectancy and mortality (death) rates provide an overarching indication of the extent to which the healthcare system is working.

This section reports on selected results from the following three indicators:

- life expectancy
- infant and young child death rate
- potentially avoidable deaths.

Further information on the indicators is provided in Box 3.1.

#### Box 3.1 Measuring life expectancy and mortality

#### Life expectancy

Life expectancy at birth is a summary figure about mortality. It is the number of years a newborn baby would live if the death rates at the given reference period continued over the course of the baby's life.

The measure for this indicator is based on a three year average (with the most recent data for 2008–2010). Further work is required to determine what level of disaggregation is reliable for single year data.

#### Infant and young child deaths

Infant and young child mortality (death) are reported as rates and across three categories:

- For infant deaths (less than one year), the rates represent the number of deaths per 1000 live births.
- For child deaths (1-4 years), the rates represent the number of deaths per 100 000
- For infant and child deaths (0–4 years), the rates represent the number of deaths per 100 000

Data are presented in three-year groupings due to volatility of the small numbers involved.

#### Potentially avoidable deaths

The progress measure for potentially avoidable deaths comprises potentially *preventable* deaths and potentially *treatable* deaths. Potentially preventable deaths are those which are amenable to screening and primary prevention, such as immunisation, and reflect the effectiveness of the current preventive health activities of the health sector. Deaths from potentially treatable conditions are those which are amenable to therapeutic interventions, and reflect the safety and quality of the current treatment system.

# Life expectancy increased in both males and females, but at a higher rate in males

Nationally, in 2008–2010, life expectancy for males was 79.5 years and 84.0 years for females.

Figure 3.1 shows the change in life expectancy for both males and females from 2005–2007 to 2008–2010.

- Nationally, the increase was 0.5 years for males. Between 2005–2007 and 2008–2010, life expectancy in males increased across all jurisdictions. The greatest increase was in the Northern Territory with 1.6 years.
- During the same period, life expectancy for females increased by 0.3 years. Once again, the greatest increase was in the Northern Territory with a 0.8 year increase in life expectancy, while life expectancy in both Tasmania and South Australia fell by 0.1 years for females.
- Despite a rise in life expectancy in the Northern Territory, it remains significantly lower than the national average and other States and Territories.





Notes:

1. Life expectancy is calculated using three years of data.

2. Change in life expectancy is rounded to nearest month.

3. See statistical supplement, table NHA.18.1 for data, technical and sources.



#### Infant death rates improved, particularly in the Northern Territory and the ACT

Figure 3.2 shows the change in infant death rates (< 1 year) from 2006–2008 to 2008–2010.

- Nationally, infant death rates have fallen by 0.2 deaths per 1000 live births, from 4.4 in 2006–2008 to 4.2 in 2008–2010.
- The greatest improvements in infant death rates have been in the ACT and Northern Territory, where rates have fallen by 0.5 and 0.9 deaths per 1000 live births respectively.
- While there has been no change to the infant death rate in Western Australia and South Australia between 2006–2008 and 2008–2010, both have maintained the lowest infant death rate in Australia over the same period.

However, care should be taken in interpreting these results, as they are based on relatively small numbers and may be subject to volatility. We will be able to draw firmer conclusions in future years when more data become available.

# Figure 3.2 Change in infant death rate (<1 year), by State and Territory, 2006–2008 to 2008–2010



Notes:

1. Data are presented in three-year groupings due to the volatility of the small numbers involved.

2. See statistical supplement, table NHA.19.2 for data, technical notes and sources.



# But child death rates (1–4 years) have increased in a number of States and Territories

Figure 3.3 shows the change in child death rates (1-4 years) from 2006-2008 to 2008-2010.

- While the national child death rate has fallen by 1.2 deaths per 100 000 persons, the rate has increased in Victoria, Western Australia, Tasmania and the Northern Territory.
- In the Northern Territory, death rates among young children have increased by 10.3 births per 100 000 population.

However, care should be taken in interpreting these results, as they are based on relatively small numbers and may be subject to volatility. As before, more data from future years is needed to draw firmer conclusions.

### Figure 3.3 Change in child death rate (1–4 years), by State and Territory, 2006–2008 to 2008–2010



Notes:

1. Data are presented in three-year groupings due to volitility of the small numbers involved.

2. See statistical supplement, table NHA.19.2 for data, technical notes and sources.

# No improvement in the rate of potentially avoidable deaths—except in the Northern Territory

Nationally between 2007 and 2009, the rate of potentially avoidable deaths remained relatively stable, except for the Northern Territory (refer statistical supplement, table NHA 20.1).

• In 2009, the Northern Territory had the highest rate of potentially avoidable deaths at 284.5 per 100 000 population. Though, this represented a decrease of 57.2 deaths per 100 000 people from 2007.

In the four jurisdictions reported (NSW, Queensland, South Australia and Northern Territory), the rate for potentially avoidable Indigenous deaths was considerably higher than non–Indigenous deaths (refer statistical supplement, table NHA 20.3).

The greatest gap between Indigenous and non–Indigenous potentially avoidable deaths is in the Northern Territory, where the rate per 100 000 is 766.5 for Indigenous, compared to 198.0 for non–Indigenous.

Notwithstanding this, the Northern Territory has had the greatest improvement in the difference between Indigenous and non–Indigenous potentially avoidable deaths. In the Northern Territory, the gap reduced by 50.4 deaths per 100 000 persons compared to 9.9 deaths per 100 000 persons in NSW.

### 3.3 Access to GPs, specialists and other health professionals

Access to general practitioners, dental and other primary healthcare professional services is essential to maintaining a healthy community. These services play an important role in monitoring an individual's health and managing many health conditions (AIHW 2010, p. 341).

This section reports on selected results from the 'people deferring treatment due to financial barriers' indicator.

# People are continuing to defer seeing a health professional or buying prescription medicine due to costs

Equal access to healthcare where individuals' financial circumstances do not affect the level and quality of care they receive is an integral aim of the healthcare system.

The 2010–11 data show that people are continuing to delay using a range of health care professions and services. In some cases a higher proportion of people are deferring treatment due to costs.

- Nationally, the proportion of people that delayed or did not see a GP due to cost has increased from 6.4% in 2009 to 8.7% in 2010–11.
- New South Wales, South Australia, Tasmania, the ACT and the Northern Territory all had a significant increase in the proportion of people who delayed or did not see a GP due to cost between 2009 and 2010–11 (see Figure 3.4).

- In NSW the proportion of people who delayed or did not see a specialist due to cost has increased from 10.1% in 2009 to 15.4% in 2010–11.
- In the ACT there was a significant rise in the proportion of people who delayed or not did not buy prescription medicine due to cost. In 2009, 3.6% of people deferred filling a prescription due to cost. In 2010–11, this figure increased to 9.4%.



# Figure 3.4 Proportion of people who reported delaying or not seeing a GP in the last 12 months because of cost, by State and Territory, 2010–11 and 2009

Note:

1. See statistical supplement, table NHA.16.1 for data.

Source: ABS (unpublished) Patient Experience Survey 2010-11.

#### New baseline-dental professionals

Figure 3.5 shows the proportion of people who reported that they delayed or did not see a dental professional in the last 12 months because of cost. The data, drawn from the ABS Patient Experience Survey for 2010–11, show that:

- nationally, in 2010–11, 26.4% reported that they delayed or did not see a dental professional due to cost
- the proportion of people who delayed or did not see a dental professional due to cost is lowest in Western Australia.

Figure 3.6 compares the proportion of persons delaying healthcare access across a range of health professions and treatment types. The data show that, nationally, a significantly higher proportion of people delay seeing or do not see dental professionals (26.4%) when compared to other health professionals. Specialists are the next highest at around 15%.

This pattern is most pronounced in areas of greatest disadvantage with a higher proportion of people in the most disadvantaged areas (35.3%) delaying or not seeing a dental professional compared people in the least disadvantaged areas (16.9%—see Figure 3.7).



# Figure 3.5 Proportion of people who reported delaying or not seeing a dental professional in the last 12 months because of cost, by State and Territory, 2010–11



### Figure 3.6 Proportion of people who delayed or did not use healthcare due to cost, multiple professions, national, 2010–11



### Figure 3.7 Proportion of people who delayed or did not use healthcare due to cost, multiple professions, national, by socio-economic status, 2010–11



Note:

1. See statistical supplement, tables NHA.16.1, NHA.16.2, NHA.16.3, NHA.16.4, NHA.16.6 and NHA 16.7 for data, technical notes and source.

### 3.4 Potentially avoidable emergency department visits

This section deals with those admissions to emergency departments that could have potentially been prevented through the provision of appropriate non-hospital health services, particularly primary care, which is a Commonwealth responsibility. Potentially avoidable general practitioner-type presentations refer to attendances at public hospital emergency departments that could have potentially been avoided through the provision of appropriate non-hospital services in the community.

#### Potentially avoidable emergency department visits increased

In 2010–11, there were 2.1 million emergency department presentations that were reported as being potentially avoidable. This was a 5.6% increase from the 2008–09 baseline, almost double the population growth, though this lower than the total increase in all emergency department presentations of 7.8%.

- The Northern Territory had the largest increase in potentially avoidable GP-type presentations from 2008–09 to 2010–11, at 21.8% (see Figure 3.8)
- Queensland was the only jurisdiction in which there was a decline from 2008–09 to 2010–11 (-1.5%) (see Figure 3.8).

# Figure 3.8 Selected potentially avoidable GP-type presentations to emergency departments, by State and Territory, percentage change from 2008–09 to 2010–11



Notes:

- 1. where the episode end status was not admitted to this hospital, or referred to another hospital, or died.
- 2. See statistical supplement, tables NHA.23.1 for data, and technical notes.

Source: AIHW (unpublished) National Non-admitted Emergency Department Care Database.


#### 3.5 Rates of primary health care service provision

There are four output measures agreed by COAG for the primary and community health objective. These measures report the number of primary care services per 1000 population for:

- general practitioner-type services
- specialist services claimed through Medicare
- dental services
- optometry.

Rates for GP-type services and specialist services have not been reported. Both these measures have remained stable with minimal change.

### Use of publicly provided dental services declined, while use of private services increased

As shown in Figure 3.9, from 2008 to 2010 at the national level there has been a decline in the rate of publicly-provided dental services, from 88.9 to 74.4 per 1 000 population, and an increase in the rate of private dental services, from 535.0 to 568.8 per 1 000 population.



#### Figure 3.9 Dental services, by provider type, by State and Territory, 2008 and 2010

Note:

1. See statistical supplement, table NHA.26.1 for data.

*Source:* AIHW (unpublished) National Dental Telephone Interview Survey 2008 and 2010; ABS (unpublished) Estimated Residential Population, 30 June 2008 and 30 June 2010.

### The rate of private dental service provision decreases with remoteness, but publicly provided services increase

Figure 3.10 shows the rate of public and private dental service provision by remoteness for 2010. The data show:

- the provision of private dental services decreases as remoteness increases—in major cities the rate of provision is 601.2 per 1000 population in major cities compared to 397.4 in remote and very remote areas
- for publicly provided dental services the reverse is true with a rate of 60.5 per 1000 population in major cities compared to 180.1 in remote and very remote areas.



Figure 3.10 Dental services, by provider type, by remoteness, 2010

Note:

<sup>1.</sup> See statistical supplement, table NHA.26.2 for data and technical notes.

Source: AIHW (unpublished) National Dental Telephone Interview Survey 2008 and 2010; ABS (unpublished) Estimated Residential Population, 30 June 2008 and 30 June 2010.



### Similarly, the rate of private dental service provision decreases with disadvantage, but increases for publicly provided services

Figure 3.11 shows that the rate of private dental services increased (from 504.1 per 1000 population in the most disadvantaged areas to 673.2 in the least disadvantaged areas) but with a decreasing proportion of publicly-provided services (from 99.3 per 1000 in the most disadvantaged areas to 39.4 in the least disadvantaged areas).





Note:

1. See statistical supplement, table NHA.26.2 for data and technical notes.

*Source:* AIHW (unpublished) National Dental Telephone Interview Survey 2008 and 2010; ABS (unpublished) Estimated Residential Population, 30 June 2008 and 30 June 2010.

### The rate of optometry services decreases with remoteness and socio–economic disadvantage

Across Australia in 2010–11, a total of 6.8 million optometry services were delivered, a rate of 295.8 services per 1000 population. At the national level, the rate of services decreased with socio-economic disadvantage. Figure 3.12 shows that:

- there appears to be an overall social gradient where people in the least disadvantaged areas have higher rates of service provision for optometry than people in the most disadvantaged areas
- while this gradient has remained over three years, the service rate has increased equally at all levels of socio-economic disadvantage.



#### Figure 3.12 Optometry services by socio-economic status, 2008–09 to 2010–11

Note:

Source: DoHA (unpublished) MBS Statistics; DVA (unpublished) data; ABS (unpublished) Estimated Resident Population, 30 June 2010.

<sup>1.</sup> See statistical supplement, tables NHA.27.2, NHA.27.4 and NHA.27.6 for data and technical notes.



### Antenatal visits in the first trimester have increased on the whole, but have decreased with remoteness and socio-economic disadvantage increased

The latest data, for 2009, have been provided to the council for NSW, Queensland, South Australia and the Northern Territory.

Table 3.1 shows:

- NSW reported the highest proportion of women with at least one antenatal visit in the first trimester of pregnancy, at 79.7% (an increase from 77.8 in 2007), and Queensland the lowest, at 58.1%.
- Across all four jurisdictions, Indigenous women attended visits at a lower rate than non-Indigenous women.
- There are also gaps in the rates at which women in remote and very remote attend visits compared to the rate in major cities.

Category	NSW	Qld	SA	NT
	All w	vomen (%)		
2007	77.8	na	70.9	58.2
2009	79.7	58.1	78.3	69.2
Gap between	Indigenous and nor	n-Indigenous rate	s (percentage point	ts)
2007	10.5	na	31.8	12.4
2009	9.4	23.6	21.4	29.4
Gap between m	ajor cities and remo	te/very remote ar	eas (percentage po	oints)
2007	2.5	na	13.7	-
2009	1.0	9.1	8.4	_

### Table 3.1Women with at least one antenatal visit in the first trimester of pregnancy,<br/>by available State and Territory, 2007 and 2009

Notes:

1. Under the ABS classification, there are no areas classified as 'major cities' in the Northern Territory

2. See statistical supplement, tables NHA.33.1 to 33.3 for more information.



# Chapter 4. Primary and community mental healthcare

### At a glance

More people are receiving Medicare Benefits Schedule/Department of Veterans' Affairs (MBS/DVA) mental health care services

- More people are receiving MBS/DVA mental health care services, with a national increase of 35% from 2007–08 to 2009–10.
- However there remain gaps in how much we know about the level of need—particularly the extent to which it is unmet.

#### Males used more public sector community mental health services than females

- Nationally, 54.7 more males per 1000 population use public sector health services compared to females in 2009–10 (males had 323.3 service contacts per 1000 population for males, compared to 268.6 for females).
- However, females used more privately provided services claimed under Medicare (440.2 contacts for females, 262.3 for males).

### There is a higher rate of private mental health service provision in the least disadvantaged areas compared to the most disadvantaged areas

• In 2009–10, 279.1 services per 1000 population were provided in the most disadvantaged areas, while 425.3 were provided in the least disadvantaged.

#### 4.1 About this chapter

In the previous chapter, we reported on progress under a number of indicators linked to the primary and community care objective that:

Australians receive appropriate high quality and affordable primary and community health services.

There are also a range of indicators under the primary care objective that relate specifically to mental healthcare. These indicators—which in places also relate to mental healthcare in hospitals—have been consolidated into this chapter.

#### How we report on primary and community mental health

There is one progress measure (treated prevalence rates for mental illness) and two outputs (number of mental health services and proportion of people with mental health plans) that relate to mental health under the National Healthcare Agreement.

What we report on this year

The indicators discussed in detail in this chapter are:

- treatment rate for mental illness
- public sector community mental health services
- private sector mental health services
- people with mental illness with general practitioner treatment plans.

#### 4.2 Treatment rates for mental illness

This section examines treatment rates for mental illness. Governments have identified mental health as a national health priority. This is reflected by governments' increased spending in mental health in recent years, including through the COAG National Action Plan on Mental Health 2006–2011, the substantial additional spending by States and Territories in recent years, and the Commonwealth's additional spending of \$2.2 billion over five years from 2011–12 (COAG 2011c).

Services for people with mental illness are provided through a range of health and welfare programs funded by the Commonwealth and State and Territory governments, private health insurance and individual co-payments. This section reports on treatment rates for people receiving mental health treatment services across public, private and MBS/DVA services (see Box 4.1 for an explanation of the service types).

#### Box 4.1 Explanation of clinical mental health care service types

#### Public clinical mental health services ('Public')

Public clinical mental health services refer to those services provided by public sector community mental health services. These services are funded by the Commonwealth Government and State and Territory governments and are provided across public hospital and community settings. Public mental health services treat mostly low prevalence but severe mental illnesses (SCRGSP 2012).

#### Psychiatric care in private hospitals ('Private')

Private clinical mental health services refer to individuals receiving admitted patient specialist psychiatric care in private hospitals.

#### MBS and DVA clinical mental health services

MBS and DVA clinical mental health services refer to individuals receiving specific mental health services that are covered under the Medicare Benefit Scheme and the Department of Veteran Affairs. MBS services are provided in general hospital settings as well as services provided by general practitioners, psychologists, mental health nurses, and other allied health professionals.

There are two sets of MBS/DVA data presented in this chapter. Section 4.2 presents MBS/DVA data for 2009-10 to allow comparability with public and private treatment types. Section 4.4 presents data for 2010–11.



### The number and proportion of people receiving MBS/DVA clinical mental health care services has increased significantly

Figure 4.1 shows the number of Australians receiving clinical mental health care by service type. The data show that nationally, more people are receiving clinical mental health care services across all the service types.

The greatest increase has been in the number of people using MBS/DVA services. Use of these services has increased by 35% from 1 027 330 people in 2007–08 to 1 387 297 people in 2009–10. This represents an increase from 4.9% of the total Australian population in 2007–08 to 6.3% in 2009–10.

While the number of people receiving private and public mental health care services has increased between 2007–08 and 2009–10 (10.8 % and 3.4 % respectively), the proportion of people receiving these services relative to the population has remained constant.

The Fourth National Mental Health Plan Measurement Strategy (AHMAC 2011) considers a treatment rate of 12% of the population as an appropriate benchmark, though this does not distinguish between different types of mental health services.

### Figure 4.1 Number of people receiving clinical mental health services, by service type, 2007–08 to 2009–10



Notes:

1. MBS/DVA services are those provided under any of the Medicare/DVA-funded service types. People seen by more than one provider type are counted only once in the total.

2. See statistical supplement, table NHA.21.1 for data.

*Source:* State and Territory (unpublished) community mental health care data; Private Mental Health Alliance (unpublished) Centralised Data Management Service data; Department of Health and Ageing (DoHA) (unpublished) MBS Statistics; Department of Veterans' Affairs (DVA) (unpublished) data; Australian Bureau of Statistics (ABS) (unpublished) Estimated Resident Population, 30 June 2009.

#### Service rates need to be considered against the prevalence of mental illness

Considered alone, treatment rates for mental illness are difficult indicators to interpret. This is because they measure the number of people receiving mental health services as a proportion of the total population—they do not measure the proportion of people who have a mental illness receiving mental health services. For example, while the number of people receiving mental health services has increased, the prevalence of mental illness in the community may have increased at a faster rate.

The results of the 2007 National Survey of Mental Health and Wellbeing show that around 20% of Australians aged 16–85 experienced one of the more common mental illnesses in the past 12 months (ABS 2008). This is equivalent to 3.2 million people.

This survey also showed that of the 3.2 million people—around one third or 1.1 million people used mental health services, with the remaining 2.1 million receiving no treatment (ABS 2008) (see Figure 4.2). However, it is difficult to interpret this indicator without understanding whether the services are appropriate to the people receiving them, or correctly targeted. People with a mental illness can have low rates of service use for a number of reasons, including:

- choosing not to use services
- unavailability of appropriate services
- lack of awareness that services are available
- negative experiences associated with previous use of services (AHMC 2008).





Notes:

Source: ABS (2008) National Survey of Mental Health and Wellbeing, 2007.

<sup>1.</sup> See statistical supplement, table Additional.3 for data.



### Indigenous Australians are more likely to use public clinical mental health care services than non-Indigenous Australians

Table 4.1 shows that in 2009–10 Indigenous Australians were more likely to use public mental health care services than non–Indigenous Australians, with the highest difference in the ACT and South Australia.

### Table 4.1Proportion of people receiving public clinical mental health services (%),<br/>by Indigenous status, by State and Territory, 2009–10

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Indigenous	4.9	3.2	4.0	4.2	5.7	np	5.8	3.7	4.3
Non– Indigenous	1.2	1.0	1.6	1.7	1.6	1.3	1.8	2.0	1.3
Difference	3.7	2.2	2.4	2.5	4.1	na	4.1	1.7	3.0

Notes:

1. The Indigenous proportions should be interpreted with caution due to the varying, and in some instances unknown, quality of Indigenous identification across jurisdictions.

2. The ACT rates of services should be interpreted with caution since ACT services include a relatively large number of services provided to interstate resident patients while the denominator used in deriving the rates is for ACT population only.

3. Calculations of difference may be subject to rounding error. na: not available, np: not published

4. See statistical supplement, table NHA.21.2 for data and sources.

#### Mental health services use under MBS decreases with remoteness

In most jurisdictions, the proportion of people receiving clinical mental health services under the Medicare Benefits Scheme decreases with remoteness. This is particularly the case in Queensland, Western Australia and South Australia where the rates in very remote areas are around one-third of that in major cities.

#### Figure 4.3 Proportion of people receiving MBS/DVA clinical mental health services, by remoteness area, by State and Territory, 2009–10



#### Notes:

1. See statistical supplement, table NHA 21.3 for data and sources.

Chapter 4. Primary and community mental healthcare Healthcare 2010–11: Comparing performance across Australia

#### 4.3 Public sector community mental health services

Public clinical mental health services refer to those services provided by public sector community mental health services. These services are primarily funded by State and Territory governments and include admitted patient care in hospitals, community-based ambulatory care services and community-based residential care. Public sector mental health services tend to treat people with severe mental illnesses (SCRGSP 2010; 2012).

### Males generally use more public sector community mental health services than females

Nationally in 2009–10, 54.7 more males per 1000 population used public sector mental health services compared to females.

- With the exception of Western Australia and the ACT, a higher rate of males used public sector community mental health services than females.
- The largest difference in rates was in NSW, where 135.4 more males than females per 1000 population used public sector health services.

The rate of service contacts also differed between age groups.

- Males aged between 25 and 34 years were most likely to use public sector mental health services, whereas in females it was the 15 to 24 and 35 to 44 year age groups.
- In both instances, the 25 to 34 and 35 to 44 age groups accounted for the largest proportion of people using public sector mental health services. This is consistent with the results of the 2007 National Survey of Mental Health and Wellbeing where the 25 to 34 and 35 to 44 age groups accounted for almost half of people with mental disorders (ABS 2008).

### Indigenous Australians use more public sector community mental health services than non-Indigenous Australians

Figure 4.4 shows the rate of contact provided by public sector community mental health services by Indigenous status. In all jurisdictions, Indigenous Australians use more public sector community mental health services than non-Indigenous Australians. The greatest differences in rates are in NSW, Tasmania and the ACT. However, the data from the ACT should be treated with caution—ACT services include a relatively large number of services provided to interstate resident patients. This means the true figures for the ACT population specifically are not likely to be as high as the data suggest.

### Figure 4.4Service contacts (per 1000) provided by public sector community mental<br/>health services, by Indigenous status, by State and Territory, 2009–10



Notes:

1. The Indigenous status rates should be interpreted with caution due to the varying, and in some instances unknown, quality of Indigenous identification across jurisdictions.

2. The ACT rates of services should be interpreted with caution since ACT services include a relatively large number of services provided to interstate resident patients while the denominator used in deriving the rates is for ACT population only.

3. See statistical supplement, table NHA.28.1 for data.

Source: Australian Institute of Health and Welfare (AIHW) (unpublished) National Community Mental Health Care Database; Australian Bureau of Statistics (ABS) (unpublished) Estimated Resident Population, 30 June 2009; ABS (2009) Experimental Estimates and Projections, Aboriginal and Torres Strait Islander Australians, 1991 to 2021, 30 June 2009, Series B.

### 4.4 Private sector mental health services covered under MBS and DVA

This section relates to specific mental health services that are covered under the Medicare Benefit Scheme and the Department of Veteran Affairs. It does not refer to psychiatric care in private hospitals. In addition, the MBS/DVA data presented in this section are for 2010–11. The MBS/DVA data presented in Section 4.2 are for 2009–10.

#### Females use more private MBS mental health services than males

Unlike public sector mental health services, females use private sector mental health services at a significantly higher rate compared to men across all States and Territories. Nationally, 177.9 more females (per 1000) use private sector mental health services than males. The largest differences in rates are in Victoria and Tasmania, where 225.9 and 191.7 more females (per 1000) use private mental health services respectively.

Women aged between 35 and 44 years are the most likely to use private mental health services, accounting for around 20% of women using private mental health services. This is closely followed by the 45 to 54 and 25 to 34 age groups.

### People in most disadvantaged areas are less likely to use private MBS mental health services than people in least disadvantaged areas

Figure 4.5 shows the rate of people using private mental health services by levels of disadvantage. The data show that a higher rate of people in the least disadvantaged areas use private mental health services than people in the most disadvantaged areas. There are likely to be a range of contributing factors to this, including access to practitioners as well as gap fees.



### Figure 4.5 Rate of ambulatory mental health services provided, by SEIFA deciles, National, 2008–09 to 2010–11

Notes:

1. See statistical supplement, tables NHA.29.4, NHA.29.8 and NHA.29.12 for data.

Source: DoHA (unpublished) MBS Statistics; DVA (unpublished) data; ABS (unpublished) Estimated Resident Population, 30 June 2010.



#### 4.5 GP mental health treatment plans

For many people, talking to a GP is the first step towards getting help with mental illness. GPs can assess people as having a mental illness and provide patients with a GP mental health treatment plan. These plans allow GPs to refer people for Medicare-subsidised sessions with a psychologist, or a psychiatrist, social worker or occupational therapist.

This indicator shows the number and proportion of people with a mental illness who have a GP mental health treatment plan.

### Around one in five people with mental illness have a GP mental health treatment plan

Figure 4.6 shows the proportion of people with mental illness who have a GP mental health treatment plan.

- Nationally, 19.9% of people with a mental illness have a GP treatment plan in 2010–11.
- In NSW and Victoria, a slightly higher proportion of people with mental illness have a treatment plan.
- The Northern Territory has a lower proportion of people who have a mental illness treatment plan.
- The proportion of people with mental illness who have a GP mental health plan increased steadily across all States and Territories from 2008–09 to 2010–11.

### Figure 4.6Proportion of people with mental illness aged 16–84 years with GP<br/>treatment plans, by State and Territory, 2008–09 to 2010–11



Notes:

1. See statistical supplement, tables NHA.32.1, NHA.32.4 and NHA.32.7 for data.

Source: Department of Health and Ageing (DoHA) (unpublished) MBS Statistics; Department of Veterans' Affairs (DVA) (unpublished) data; Australian Bureau of Statistics (ABS) (unpublished) Estimated Resident Population, 30 June 2010; ABS (unpublished) National Survey of Mental Health and Wellbeing, 2007.

### People in major cities and inner regional areas are more likely to have a GP mental health treatment plan

Figure 4.7 shows the number of people with mental illness who have a GP treatment plan by remoteness. The data clearly show a larger proportion of people in major cities and inner regional areas have treatment plans than people in outer regional, remote and very remote areas. The figure also shows that this gap has widened between 2008–09 and 2010–11. Nonetheless, the number of people with GP treatment plans have increased across all categories of remoteness.



### Figure 4.7 People with mental illness aged 16–84 years with GP treatment plans, by remoteness, National, 2008–09 to 2010–11

Notes:

Source: DoHA (unpublished) MBS Statistics; DVA (unpublished) data; ABS (unpublished) Estimated Resident Population, 30 June 2010; ABS (unpublished) National Survey of Mental Health and Wellbeing, 2007.

<sup>1.</sup> See statistical supplement, tables NHA.32.3, NHA.32.6 and NHA.32.9 for data.

### Chapter 5. Hospital and related care

### At a glance

### Elective surgery waiting times have increased nationally from 2007–08 to 2010–11

- The time by which 50% of patients—the mid-point or 'median' of the waiting lists—have undergone their procedure has increased from 34 to 36 days, while the time by which 90% of patients have undergone their procedure has increased from 235 to 252 days.
- These increases are largely driven by increases in the jurisdictions with the largest populations—particularly NSW—which outweigh improved waiting times in some other jurisdictions.
- For example, Western Australia, South Australia and the Northern Territory each reduced the average time by which 50% of their patients underwent their procedure.

#### Performance in other parts of our hospitals

- Overall, emergency department performance has remained relatively stable, though improved in the more urgent categories, with a greater proportion of patients being seen within benchmark times.
  - NSW has consistently performed well, while South Australia and the Northern Territory have been the big improvers from 2007–08 to 2010–11.
- Rates of unexpected readmissions within 28 days of surgery worsened for five of seven select procedures.
- Cancer survival rates have increased overall—though rates in remote and socio-economically disadvantaged areas are lower than in less remote and less disadvantaged areas.

#### 5.1 About this chapter

Hospitals are an essential institutional feature of Australia's healthcare system, providing care to millions of patients and absorbing around one-third of all spending on healthcare. An objective of the National Healthcare Agreement is that:

All Australians receive high quality hospital and hospital related care that is appropriate and timely (COAG 2011c).

This chapter reports on jurisdictions' performance under this objective.

#### How do we report on hospital and related care?

Governments agreed to 15 performance indicators to measure progress toward the outcomes and the overall objective for hospital and related care.

What we report on this year

In this report, we analyse the following performance indicators:

- elective surgery waiting times
- waiting times for emergency department care
- rates of unplanned or unexpected readmissions within 28 days of select surgical procedures
- survival of people diagnosed with cancer
- rates of outpatient occasions of service.

What we do not report on this year

Because the focus of this report is on those indicators where performance has changed from previous years, or where new data are available for the first time, not all of the 15 performance indicators are reported. Performance indicators that are not discussed in detail in this report because they are largely unchanged from baseline performance are rates of:

- healthcare-associated *staphylococcus aureus bacteraemia* in acute care hospitals
- falls resulting in patient harm in hospitals
- separation for intentional self-harm in hospitals
- overnight separations
- non-acute care separations
- 17 selected procedures.

The full data for these performance indicators are included in the statistical supplement accompanying this report.

What we cannot report on this year

No data are currently available for the following performance indicators:

- waiting times for admission following emergency department care
- waiting times for radiotherapy and orthopaedic specialists
- adverse drug events in hospitals
- pressure ulcers in hospitals.



#### 5.2 Waiting times for elective surgery

This indicator reports elective surgery waiting times in public acute hospitals at the 50<sup>th</sup> and 90<sup>th</sup> percentile of the waiting list for 16 selected procedures.

#### What are the 50<sup>th</sup> and 90<sup>th</sup> 'percentile' wait times?

The waiting time at the 50<sup>th</sup> percentile—also called the median—is the point in the waiting list for a procedure where exactly half the patients have a shorter wait to be admitted, and half the patients have a longer wait. It can be thought of as the mid-point or middle of the waiting list.

Similarly, the 90<sup>th</sup> percentile waiting time means 90% of the people admitted to hospital are admitted by this time. For example, a 90<sup>th</sup> percentile waiting time of 22 days means that 90% of patients were admitted within 22 days of going on the list.

#### Box 5.1 Elective surgery—relationship between clinical urgency and waiting times

In general, when placed on the public hospital waiting list, a clinical assessment is made of how urgently the patient requires elective hospital care. There are three categories, with category 1 being most urgent (desirable to be seen within 30 days) and category 3 being least urgent (any time in the future is acceptable).

Analyses of clinical urgency categories have shown notable variation in proportions of patients assigned to these categories across states and territories. For example, as can be seen from the table below, there are wide differences in the proportion of patients clinically assessed in the least urgent category.

Proportion of admissions from waiting lists for elective surgery, by clinical urgency category 3, states and territories, 2010–11

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Category 3	43	24	16	39	32	17	22	19	31

Note: See statistical supplement, table Additional.4 for data, sources and technical notes.

Because of the apparent variation in urgency category assignment, the AIHW has not presented urgency categorisation in national reporting of elective surgery waiting times since the 1999-2000 reference year (AIHW, 2011).

However, the AIHW has said that, despite the apparent non-comparability of the urgency category data, interpretation of State and Territory waiting times statistics could be assisted by contextual information about the proportion of patients being assessed as less urgent by clinicians in individual jurisdictions. For example, a state could report relatively long median times waited in association with a relatively high proportion of patients assessed by the state as being in category 3.

Under COAG's *National Partnership on Improving Public Hospital Services*, work is currently underway to develop new national definitions for elective surgery urgency categories.

The performance of jurisdictions in ensuring patients were seen within clinically recommended times was assessed by the council in its final performance report under the *National Partnership on Elective Surgery* (August 2011), and will be assessed in future periods under the *National Partnership on Improving Public Hospital Services*.

### Change in elective surgery waiting times at the 50<sup>th</sup> percentile from 2007–08 to 2010–11

Figure 5.1 shows overall waiting times at the 50<sup>th</sup> percentile for each jurisdiction in 2007–08 and 2010–11.

- The national waiting time increased from 34 to 36 days.
- The ACT had the longest waiting times at 76 days—an increase from 72 days in 2007–08.
- Queensland and Western Australia had the shortest waiting times (29 days)—for the former, this was an increase from its baseline rate of 27 days, while for the latter it was a decrease from 30 days.
- The largest proportional rise in waiting time was in NSW, where it grew 20.5% from 39 to 47 days.
- The largest proportional fall in waiting time was in the Northern Territory, where it fell 23.3% from 43 to 33 days.





Notes:

1. See statistical supplement, table NHA.34.1 for 2010–11 data and technical notes.

2. Data for 2007–08 are available with the council's report National Healthcare Agreement: Baseline performance report for 2008-09.

Source: AIHW National Elective Surgery Waiting Times Data Collection.

### Change in elective surgery waiting time performance at the 90<sup>th</sup> percentile from 2007–08 to 2010–11

Figure 5.2 shows overall waiting times at the 90<sup>th</sup> percentile for each jurisdiction in 2007–08 and 2010–11.

- The national waiting time increased from 235 to 252 days.
- The ACT had the longest waiting time in 2010–11—increasing from 372 to 378 days.
- Tasmania had the second longest waiting time in 2010–11 (359 days), though this was shorter than in the baseline year (369 days).
- The largest proportional rise in waiting time was in NSW, where it grew 19.8% from 278 to 333 days.
- The largest proportional fall in waiting time was in the Northern Territory, where it fell 33.8% from 337 to 223 days.

### Figure 5.2 Waiting times for elective surgery in public hospitals, by State and Territory, 90<sup>th</sup> percentile, 2007–08 to 2010–11



Notes:

1. See statistical supplement table, NHA 34.1 for 2010–11 data and technical notes.

2. Data for 2007–08 are available with the council's National Healthcare Agreement: Baseline performance report for 2008-09.

Source: AIHW National Elective Surgery Waiting Times Data Collection.

### Waiting times in summary—change in performance by procedure from 2007–08 to 2010–11

Table 5.1 and Table 5.2 show the performance of each State and Territory against the 16 select elective surgery procedures for which the council has data. Performance at the 50<sup>th</sup> and 90<sup>th</sup> percentile wait times are provided. The tables are colour coded—green cells show shorter waiting times and red cells show where waiting times have lengthened. The numbers in the cells are the percentage change in waiting time from 2007–08 to 2010–11.

Appendix A contains additional analysis of this data, including figures that show the relative changes in waiting time for each jurisdiction.

#### Elective surgery and social inclusion

In 2010–11, at the median, Indigenous Australians waited 3 days longer for elective surgery than non-Indigenous Australians (39 days to 36 days)—at the 90<sup>th</sup> percentile, they waited 13 days longer than non-Indigenous Australians (265 days to 252 days).

When analysed by remoteness:

- at the 50th percentile, waiting times were shorter in major cities (35 days) than in any other area of remoteness except the 'remote' category (33 days)
- results at the 90<sup>th</sup> percentile matched those at the 50<sup>th</sup>—waiting times were shorter in major cities (231 days) than everywhere else except those areas classified as 'remote' (209 days).

As in previous years, waiting times were related to socio-economic status, with people from the most disadvantaged areas (40 days at the 50<sup>th</sup> percentile, 276 days at the 90<sup>th</sup> percentile) considerably longer than those from the least disadvantaged areas (30 days and 189 days, respectively).

The biggest differences in waiting times by socio-economic status were in NSW—in the most disadvantaged areas, waiting times were 51 days, though only 27 days in the least disadvantaged areas. At the 90<sup>th</sup> percentile, patients from the most disadvantaged areas had to wait 339 days, though those from the least disadvantaged areas waited 201 days.



	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
				9	6			
Cataract extraction	35.1	32.6	0.0	-40.7	20.0	-41.0	-20.0	-31.8
Cholecystectomy	15.1	0.0	40.5	-15.2	-2.0	-12.8	-15.2	-10.5
Coronary artery bypass graft	14.3	100.0	-22.2	-41.7	15.0	-8.2	-3.8	-
Cystoscopy	-11.5	9.5	-15.2	38.5	0.0	-42.9	43.1	61.2
Haemorrhoidectomy	31.0	-3.1	64.9	-12.8	13.5	-51.1	75.5	-24.7
Hysterectomy	5.8	-5.8	11.1	2.4	0.0	-26.7	-35.9	-9.6
Inguinal herniorrhaphy	25.0	3.8	45.0	-5.7	-16.7	-44.9	-8.9	-22.3
Myringoplasty	78.5	33.3	9.7	-45.6	-9.3	-59.2	-24.0	-63.9
Myringotomy	8.8	25.6	-2.8	-41.1	-16.7	169.3	74.5	-49.4
Prostatectomy	31.9	31.8	25.0	17.9	-16.4	110.3	84.3	12.0
Septoplasty	39.3	5.3	-14.7	-39.9	-7.1	-54.4	106.6	81.0
Tonsillectomy	29.7	44.8	40.0	-46.6	-34.9	25.0	16.3	-32.6
Total hip replacement	11.2	-19.0	25.8	-4.8	3.5	-34.0	37.1	14.3
Total knee replacement	25.5	-19.9	41.6	-20.0	-34.1	-1.0	45.5	-26.9
Varicose veins stripping & ligation	42.3	-25.7	11.5	3.0	-20.9	83.7	-20.4	-23.6
Total	20.5	9.1	7.4	-3.3	-9.5	5.6	5.6	-23.3

### Table 5.1 Change in waiting time at the 50<sup>th</sup> percentile from 2007–08 to 2010–11

Table 5.2

Change in waiting time at the 90<sup>th</sup> percentile from 2007–08 to 2010–11

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
				9	6			
Cataract extraction	6.2	-15.2	5.0	-40.0	55.1	-41.0	-38.0	-42.8
Cholecystectomy	18.8	-29.4	20.5	-16.0	-35.7	8.1	15.0	-39.1
Coronary artery bypass graft	-24.5	-42.4	-13.4	13.5	-22.1	-38.6	-41.7	_
Cystoscopy	-32.7	-39.3	-8.0	20.5	-17.6	-35.6	36.2	23.8
Haemorrhoidectomy	24.5	-4.6	-7.2	-13.5	31.0	-16.8	70.2	-18.6
Hysterectomy	25.5	-14.9	16.5	-21.1	1.2	-5.0	-29.2	41.8
Inguinal herniorrhaphy	42.4	-30.6	9.7	-14.3	-32.3	38.4	22.4	-47.8
Myringoplasty	4.9	10.6	-46.9	-39.7	-35.7	-51.5	-21.9	-48.3
Myringotomy	-5.7	23.0	-35.7	-67.9	-30.8	31.3	-8.1	0.0
Prostatectomy	-4.3	-25.6	9.0	13.3	-58.1	41.5	322.0	-3.4
Septoplasty	4.3	5.6	-57.9	-8.6	-34.4	-53.7	38.6	-74.4
Tonsillectomy	5.7	21.8	-2.7	-52.6	-34.1	-44.0	-5.9	0.0
Total hip replacement	1.7	-20.2	18.7	-3.7	-35.5	-6.5	21.5	-70.6
Total knee replacement	1.4	-24.4	19.0	-0.3	-46.5	-6.0	17.9	-34.6
Varicose veins stripping & ligation	20.7	-9.6	-13.5	-31.0	-31.8	27.2	-32.6	-53.2
Total	19.8	-17.6	8.0	-22.8	0.0	-2.7	1.6	-33.8

Notes:

1. See statistical supplement, table NHA.34.2 for data, technical notes and source.

#### 5.3 Waiting times for emergency department care

Under the National Healthcare Agreement, emergency department performance is measured by the percentage of patients who are seen within benchmark times for each triage category.

Category 1 presentations are the most urgent, where the patient presents with an immediately life threatening condition. Category 5 are the least urgent presentations, and the patient must be treated within 2 hours.

#### Solid performance, with some standouts

Figure 5.3 shows the overall proportion of patients seen within benchmark nationally and for each State and Territory, from 2007–08 to 2010–11.

- The national rate has edged higher over the period—from 67% of patients seen within benchmarks in 2007–08 to 68% in 2010–11.
- NSW has consistently had the highest—or in one year, second highest—proportion of patients seen within benchmarks.
- The Northern Territory has had the lowest proportion over the four years, though has consistently improved every year from 41% in 2007–08 to 52% in 2010–11.
- South Australia also showed strong improvement over the period, with the proportion of patients seen within benchmarks improving by 22% over the 2007–08 to 2010–11 period— it has risen from one of the poorer performers to one of the best.

### Figure 5.3 Patients treated within national benchmarks for emergency department waiting time, by State and Territory, 2007–08 to 2010–11



Notes:

1. See statistical supplement, table NHA.35.1 for data and technical notes.

2. Data for previous years are available in the council's previous performance reports.

Source: AIHW (unpublished), National Non-admitted Patient Emergency Department Care Database.



#### Triage categories 2 and 3-change in performance from baseline

All jurisdictions treated 100% of triage category 1 patients within the benchmark. Performance in triage categories 4 and 5 can be affected by the availability of primary care to patients, for which the Commonwealth Government has lead responsibility. Performance in triage categories 2 and 3 are less likely to be influenced by primary care.

Figure 5.4 shows the relative change from 2007–08 to 2010–11 in the performance of jurisdictions in meeting benchmarks for triage categories 2 and 3.

- For triage category 2, all jurisdictions except Tasmania have improved their performance from the baseline.
  - Queensland had the largest relative improvement—from 2007–08 to 2010–11, waiting time performance for triage category 2 patients improved by over 13%.
- For triage category 3, all jurisdictions except Victoria, Western Australia and Tasmania have improved their performance from the baseline.
  - South Australia had the largest relative increase—its performance improved by over 26% from the 2007–08 to 2010–11.

## Figure 5.4 Relative change in proportion of patients treated within national benchmarks for emergency department waiting time, triage category 2 and 3, by State and Territory, 2007–08 to 2010–11



Notes:

1. See statistical supplement, table NHA.35.1 for data and technical notes.

Source: AIHW (unpublished), National Non-admitted Patient Emergency Department Care Database.

<sup>2.</sup> Data for 2007–08 are available

#### 5.4 Rates of unplanned/unexpected readmissions within 28 days

The rate at which people are unexpectedly readmitted within 28 days of surgery is a key indicator of quality in hospital care.

Nationally, rates of unplanned or unexpected readmissions fell for two of the seven selected procedures. Figure 5.5 shows the national relative change in waiting times from 2007–08 to 2009–10.

- The rate of readmissions for hip replacements fell 9.6%.
- Rates of readmissions increased for prostatectomy, hysterectomy, appendectomy and cataract surgery.

Among States and Territories, notable results included:

- NSW—17.4% fall in readmissions following knee replacements, and 15.3% fall in readmissions for tonsillectomy and adenoidectomy
- Victoria—23.6% fall in readmissions following hip replacements
- Western Australia—over 36% fall for readmissions following knee replacement, 20% fall for tonsillectomy and adenoidectomy
- South Australia–over 19.3% fall in readmissions for knee replacement.

# Figure 5.5 National percentage change in rates of unplanned/unexpected readmissions within 28 days of selected surgical admissions, 2007–08 to 2009–10

Rate of readmissions 2009-10 (per 1000 separations)	Procedure	Rate of change in readmissions
3.8 25.1 31.3 30.9 26.5 26.2	Cataract surgery Appendicectomy Hysterectomy Prostatectomy Tonsillectomy Knee replacement	Decrease in readmissions
16.4	Hip replacement -15	-10 -5 0 5 10 15 20 25

Notes:

Source: AIHW (unpublished) National Hospital Morbidity Database; WA Health (unpublished).

<sup>1.</sup> See statistical supplement, tables NHA.43.1 and NHA.43.7 for data.



#### 5.5 Survival of people diagnosed with cancer

### Survival rates improving, though still lowest among the disadvantaged and those in remote areas

Overall cancer survival rates increased significantly in the period 2006 to 2010 compared to the previous five year period. This rate is a key indicator of appropriateness of care in hospitals.

Figure 5.6 shows cancer survival rates by remoteness—see the left hand side of the figure—and by socio-economic status—on the right hand side.

- Cancer survival rates were significantly higher for people in major cities and inner regional areas compared to people in outer regional areas.
- People in the combined remote and very remote areas had significantly lower five year survival rates than in all other areas.
- The relationships between cancer survival and remoteness and socio-economic status was similar in both periods, although cancer survival rates increased overall.



### Figure 5.6 Five-year relative survival rates for people diagnosed with cancer, by remoteness, by socio-economic status, 2002–2006 and 2006–2010

Notes:

1. See statistical supplement, tables NHA.44.1 and NHA.44.2 for data and technical notes. Source: AIHW (unpublished) Australian Cancer Database; AIHW (unpublished) National Mortality Database.

#### Survival rates by type of cancer

The data provided to the council measure overall cancer survival rates, regardless of the type of cancer. However, survival rates vary dramatically according to cancer type. For example, of the five selected cancers reported under the prevention objective for the National Healthcare Agreement, five-year survival rates were:

- 92.0% survival for melanoma of the skin—the incidence of this cancer is highest among the *least* disadvantaged
- 88% survival for female breast cancer— the incidence of this cancer is also highest among the *least* disadvantaged
- 71.8% survival for cervical cancer— the incidence of this cancer is highest among the *most* disadvantaged
- 61.8% survival for bowel cancer— the incidence of this cancer is also highest among the *most* disadvantaged
- 13.0% survival for lung cancer—incidence rates are highest among the most disadvantaged.

Of the five common types of cancers that we report, the two with the highest survival rates have the highest incidence among least disadvantaged Australians. The three with the lower survival rates are most common among the most disadvantaged Australians.



#### 5.6 Rates of outpatient occasions of service

Outpatient occasions of service are when a patient attends a hospital to receive some form of health service but is not admitted into the hospital. The council receives data on outpatient occasions of service by seven categories:

- allied health
- dental
- dialysis
- drug and alcohol
- endoscopy
- mental health
- other medical/surgical/obstetric services.

#### Dialysis increases, dental services decrease

Nationally, from 2007-08 to 2009-10:

- the rate of dialysis almost doubled from 1.2 per 1000 to 2.3—while this rate was low overall compared to the other service types, its increase over three years is noticeable
- the rate of dental services fell almost 20%—in 2007–08 the rate was 49.1 per 1000 and in 2009–10 it was 39.4 per 1000. This represents 170 392 fewer occasions of service.

At the State and Territory level, some performance fluctuated substantially. This may in part reflect differences in admission practices as well as counting and classification practices. Services where performance varied by more than 40% from the baseline are shown in Figure 5.7.

### Figure 5.7 Selected change in rates of public hospital outpatient occasions of service, by State and Territory, 2007–08 to 2009–10



Notes:

- 1. Changes shown are greater than 40% relative to baseline performance.
- 2. See statistical supplement, table NHA.46.1 for data and technical notes and sources.





### Chapter 6. Aged care

### At a glance

#### Increased access to some types of aged care and sub-acute care

- Nationally, community aged care places have increased from 23.5 places per 1000 population in 2008–09 to 27.7 places per 1000 population in 2010–11. The rate also increased in each State and Territory over the reporting period.
- Extended Aged Care at Home, EACH Dementia Care and Transition Care have also increased in rate nationally from 2008–09 to 2010–11.
- Nationally, the rate of separations for older Australians receiving sub-acute care increased from 60.2 per 1000 population in 2007–08 to 73.9 per 1000 population in 2009–10.

#### Remoteness inequality in access to residential care

- The rate of residential aged care places follow a remoteness gradient, with Australians living in major cities receiving double the amount of places to those living in very remote areas.
- Older Australians in remote areas also waited in hospital ten times longer for residential aged care than those waiting in major cities.

### An increase in social and remoteness inequality in access to sub-acute services

- While access to sub-acute services has increased overall, social and remoteness inequality in access to services persists.
- Further, the rate at which services are used in major cities has also increased more than in other areas, showing increasing inequality in access to sub-acute services outside major cities.

#### 6.1 About this chapter

The long-term objective of aged care is that 'older Australians receive high quality and affordable health and aged care services' (COAG 2008). There are two main types of services provided by the aged care sector (AIHW 2009a; Productivity Commission 2010):

- residential aged care—provides accommodation and care services for older people who are unable to remain living at home
- community aged care—services are diverse and provided under a range of different programs, usually providing support to keep people at home.

Government-funded aged care often supplements informal care arrangements and is a substitute for those without access to practical assistance from family and friends, or for whom family care is no longer able to meet their needs (AIHW 2011, p. 184; Productivity Commission 2010).

#### How do we report on aged care?

COAG agreed nine performance indicators to measure progress against two progress measures and five outputs.

#### What we report on this year

We discuss four discuss in detail in this chapter. The data show change in progress toward the objective compared to the data previously reported for:

- rates of residential and community aged care places
- the number of hospital days occupied by those waiting for residential aged care
- number of people aged 65 and over receiving sub-acute and rehabilitation services
- number of older people receiving aged care services by type.

#### What we do not report on this year

Because the focus of this report is on those indicators where performance has changed from previous years, or where new data are available for the first time, not all of the performance indicators are reported. Performance indicators that are not reported in this chapter are:

- number of young people with disabilities using residential, Community Aged Care Places (CACP) and Extended Aged Care at Home (EACH) packages have remained fairly stable:
  - the number of young people (under 64 years of age) with disabilities using residential aged care reduced from 7755 people in 2008–09 to 7683 in 2010–11
  - the number of young people using community aged care packages, and EACH increased from 2631 people in 2008–09 to 2759 in 2010–11
- falls resulting in patient harm in residential aged care—remains stable nationally at 3.3 per 10 000 resident-occupied place days in 2008–09 and 3.4 in 2009–10
- we have received new baseline data for the number of aged care assessments conducted nationally, 84.8 assessments were completed per 1000 people aged 70 and over and Indigenous Australians aged 50 and over.

#### What we cannot report on this year

No data are available for either of these performance indicators:

- rates of Staphylococcus aureus bacteraemia in residential aged care
- pressure ulcers in residential aged care.



#### 6.2 Access to residential and community aged care

This indicator reports on the number and rate of residential and community aged care places per 1000 population aged 70 and over, as well as Indigenous Australians aged 50–69 years.

Most older Australians, including those who receive formal aged care services, live at home (Productivity Commission 2011). Community aged care services are diverse and provided under a range of different programs, usually providing support to keep people at home. These data do not include all types of care. In particular, they exclude Home and Community Care, which is the service most used by older Australians (see section 6.5).

Residential aged care provides accommodation and care services for older people who are unable to remain living at home.

### Increase in rates of access to community aged care places, but residential aged care places decreased from 2008–09 to 2010–11

#### Community aged care places

The Commonwealth is responsible for funding and regulation for residential and community aged care places for people aged 65 years and over (50 years and over for Indigenous Australians) (COAG 2011b). Figure 6.1 shows:

- in all States and Territories, the rate per 1000 population of community aged care packages increased in 2010–11 from the baseline year of 2008–09
- the largest increases were in the ACT—from 28.7 to 43.9 per 1000 population—and Western Australia—26.0 to 36.0 per 1000 population.

#### **Residential aged care places**

Figure 6.1 also shows that, over 2008–09 to 2010–11:

- the rate of residential aged care places decreased nationally from 84.6 per 1000 population in 2008–09 to 83.3 in 2010–11
- rates of residential aged care places decreased in each State and Territory, except the ACT
  - in 2010–11, the rate in the ACT was higher than the baseline rate (71.7 per 1000 population in 2008–09 to 76.4 in 2010–11), but was lower than the intervening year (79.1 in 2009–10).



### Figure 6.1 Residential and community aged care places by State and Territory, 2008–09 and 2010–11

Notes:

1. Population is people aged 70 years and over plus Indigenous Australians aged 50-69 years at 30 June 2011.

2. See statistical supplement, table NHA.49.1 for data, technical notes and sources.

#### Residential and community care places by remoteness

Figure 6.2 shows the rate of residential aged care places is lower in remote and very remote areas than major cities, which have double the rate of places available in very remote areas.

Community care follows the opposite pattern, with more places available in remote and very remote areas than in major cities.

While the provision of community care places is higher in remote areas and residential care places is lower, this does not necessarily equate to a different service mix being required in remote areas. We do not assume that the current allocation of places matches the demand for services. This is important when considering the patient days spent in hospital waiting for a residential aged care place (section 6.3). This measure gives an indication of the demand for residential aged care places from older Australians, who are at risk of unnecessary or prolonged hospital stays when they cannot get an alternative care that better meets their needs.



#### Figure 6.2 Residential and community aged care places by remoteness, 2010–11

Notes:

1. Population is people aged 70 years and over plus Indigenous Australians aged 50-69 years at 30 June 2011.

2. See statistical supplement, table NHA.49.3 for data, technical notes and sources.

### 6.3 Hospital patient days used by those waiting for residential aged care

This indicator measures the number of hospital patient days used by patients waiting for a residential aged care place over the total number of patient days used in hospitals.

This output measure is a way to assess if older Australians are receiving the care they need in a timely way—if older Australians are waiting in hospital for residential aged care, then they are not getting the care most appropriate at that point in time. Unmet need for residential care can also put considerable pressure on those requiring this type of care, their carers and families, and the hospital system (Productivity Commission 2008, p. 109).

Interactions between health and aged care services are important for the performance of both systems. The number of operational residential aged care places can also affect demand for public hospital beds, and movement of older patients through the hospital system has a substantial effect on the demand for residential and community aged care (SCRGSP 2012).

### Fall in patient days used waiting for residential care nationally from 2007–08 to 2009–10

While the States and Territories have varied rates, the data show a decrease in the rate of patient days waiting for residential aged care nationally, and for most States and Territories. The data also show that the national rate dropped from 14.6 per 1000 patient days in 2007–08 to 12.4 in 2009–10, reducing the waiting time for residential aged care by about 15% (refer to statistical supplement, table NHA.57.1). The data also show that:

• the exception was the Northern Territory, which showed an increase in rate from 17.0 per 1000 patient days in 2007–08 to 20.6 per 1000 patient days in 2009–10—older Australians in hospital are waiting 3.6 days longer for residential aged care in the Northern Territory than they did in the baseline year



- the highest rate has consistently been in South Australia, which dropped from 30.4 per 1000 patient days in 2007–08 to 26.2 per 1000 patient days in 2009–10
- the lowest rate has consistently been in Victoria, which dropped from 4.6 per 1000 patient days in 2007–08 to 3.8 per 1000 patient days in 2009–10.

#### Box 6.1 About the data

#### Hospital patient days used by those waiting for residential aged care

The data provided for reporting against this output are a proxy measure. While the output is the *number of hospital patient days by those eligible and waiting for residential aged care,* the proxy measure is not limited to those older people who are assessed as eligible for residential aged care under the Aged Care Assessment Program.

The proxy measure includes all the patient days used by patients who are classified by hospitals as waiting for residential care (whether they are eligible or not). As a result, the data might represent an overestimate of the patient days spent waiting for residential aged care.

### Long waits for Australians in remote and socio-economically disadvantaged areas for residential aged care—change from 2007–08 to 2009–10

As shown in Figure 6.3:

- in 2009–10, major cities and inner regional areas have lower rates of patient days waiting for residential care than other levels of remoteness
  - the lowest rate was 6.7 per 1000 patient days in major cities
  - the rate of patient days used by those waiting for residential aged care in remote areas was 67.4 per 1000 patient days, which is ten times greater than the rate for major cities
- rates were relatively stable from 2007–08 to 2009–10 in major cities and regional areas, though showed some variability in remote and very remote areas.


Figure 6.3 Hospital patient days used by those waiting for residential aged care, by remoteness for 2007–08, 2008–09 and 2009–10

Notes:

1. See statistical supplement, table NHA.57.1 for data and technical notes.

*Source:* AIHW (unpublished) National Hospital Morbidity Database; ABS (unpublished) Estimated Residential Population, 30 June 2009; ABS (2009) Experimental Estimates and Projections, Aboriginal and Torres Strait Islander Australians, 1991 to 2021, 30 June 2009, Series B, Cat. no. 3238.0.

Hospital patient days by socio-economic and Indigenous status

The least disadvantaged fifth of Australia has the lowest waiting times at a rate of 5.8 per 1000 patient days, compared to the most disadvantaged fifth of Australia, which had the highest rate at 17.1 in 2009–10.

• The data show that all quintiles have decreased in the rate of patient days waiting from 2007–08 to 2009–10.

Indigenous Australians have a slightly lower rate of patient days waiting for residential aged care than other Australians.

• The greatest difference is in South Australia, where the Indigenous Australian rate per 1000 patient days was one fifth of the rate for other Australians in 2009–10.

#### Residential aged care places and patient days waiting for residential aged care

The data for residential aged care places for 2009–10 are presented in Figure 6.4 with the data for patient days waiting for a residential aged care place by remoteness for 2009–10. This shows the wait increasing between major cities and remote areas, while the rate of residential care places is decreasing. Both these outputs show inequality for those living outside major cities. Together, these outputs suggest poor outcomes in access to residential aged care places for remote Australians.



#### Figure 6.4 Patient days waiting for residential aged care by remoteness for 2009–10 and residential aged care places by remoteness for 2009–10

Notes:

1. See statistical supplement, tables NHA.49.3 and 57.1 for data, technical notes and sources.

#### 6.4 Rates of sub-acute and rehabilitation services

This output reports on the number of older people (aged 65 years and over) receiving sub-acute and rehabilitative services. Sub-acute care includes hospitalisations for rehabilitation, palliative care, geriatric evaluation and management, and psychogeriatric care. Rehabilitation and sub-acute services are important because they assist older people to improve or maintain functional ability as they age.

Data are based on the number of hospital separations and do not count the use of sub-acute care services that do not require hospitalisation.

Increases in the rate of separations per 1000 population indicate that older Australians are more frequently using services that will help them age more comfortably.

#### Rates of sub-acute care increased from 2007-08 to 2009-10

- Nationally the rate of separations for older Australians receiving sub-acute care increased from 60.2 per 1000 population in 2007–08 to 73.9 per 1000 population in 2009–10.
- The ACT had the highest rate at 128.2 per 1000 population in 2009–10, though ACT rates are likely affected by services provided to interstate patients.
- The lowest rates in 2009–10 were 25.5 per 1000 population in Tasmania and 26.4 in the Northern Territory. Both these jurisdictions do not have major city areas, where most sub-acute services are used (see Figure 6.5). These lower rates reflect the national pattern of higher levels of access to sub-acute services in major cities compared to other levels of remoteness (refer to statistical supplement, table NHA.56.1).

### Growing inequality in access to sub-acute services between major cities and other areas of Australia

COAG

<u>Reform Council</u>

Figure 6.5 shows the rate of separations for persons aged 65 years or over receiving sub-acute care services by remoteness and the national total (73.9 per 1000 population) for 2009–10.

In 2009-10:

- major cities had a rate of 91.8 separations per 1000 population, a rate one and a quarter times higher than the national rate in the same year, and over a 20% increase from the rate for major cities in 2007–08
- the rate at which services are used in major cities has also increased more than in other areas, showing increasing inequality in access to sub-acute services outside major cities.

### Figure 6.5Separations for persons aged 65 years or over, receiving sub-acute<br/>services, by remoteness for 2007–08, 2008–09 and 2009–10



Notes:

1. See statistical supplement, table NHA.56.1 for data and technical notes.

*Source:* AIHW (unpublished) National Hospital Morbidity Database; ABS (unpublished) Estimated Residential Population, 30 June 2009; ABS (2009) Experimental Estimates and Projections, Aboriginal and Torres Strait Islander Australians, 1991 to 2021, 30 June 2009, Series B, Cat. no. 3238.0.

### Sub-acute care by socio-economic and Indigenous status: change from 2008–09 to 2009–10

Data for 2008–09 and 2009–10 show that:

- the rate of separations has increased for all deciles (except decile three, which dropped by 2.5 separations per 1000 population)
- the rate has increased most for decile nine (the second least disadvantaged tenth), from 86.3 per 1000 population in 2008–09 to 101.5 in 2009–10



- inequality between the most and least disadvantaged areas persists, with a clear social gradient in both years:
  - the most disadvantaged half of the deciles (deciles one to five) were all less than half the rate of the least disadvantaged tenth in both years of data
  - the least disadvantaged tenth was almost three times (2.84) the rate of the most disadvantaged tenth in 2009–10 (refer to statistical supplement, table NHA.56.2)
- the rate of Indigenous Australians receiving sub-acute services per 1000 population is about half that of other Australians in each reporting year (refer to statistical supplement, table NHA.56.1).

#### 6.5 Aged care services by type

This output reports the number of older people receiving aged care services in community and residential settings. Types of aged care include Veterans' Home Care, Home and Community Care, Community Aged Care Packages, Extended Aged Care at Home, EACH Dementia, Transition Care and residential aged care (both permanent care and respite care).

Under the National Health Reform Agreement, the Commonwealth Government assumed full funding and program responsibility for aged care, including the Home and Community Care Program (except in Victoria and Western Australia) (COAG 2011b). This compares with previous arrangements under which the Home and Community Care Program was jointly administered and financed by the Commonwealth, State and Territory Governments.

The most used service is Home and Community Care, which had a rate of 292.8 people per 1000 population (Indigenous Australians aged 50–69 and all Australians over 70 years) in 2010–11, followed by Residential Aged Care at 92.2 people per 1000 population (refer to statistical supplement, table NHA.53.1).

### Increase in Extended Aged Care at Home, EACH Dementia Care and Transition Care from 2008–09 to 2010–11

Several of the smaller programs, including Extended Aged Care at Home, EACH Dementia Care and Transition Care have increased in rate nationally over the reporting period (see Figure 6.6). These programs are relatively new, all having commenced in the last decade. As such, increased use would be expected as more people become aware of the programs over time and as the number of places available increase.

Overall, the rates for other types of aged care services are similar to previous years (refer to statistical supplement, table NHA.53.1).

## Figure 6.6 Extended aged care at home, EACH dementia and Transition care recipients for 2008–09, 2009–10 and 2010–11



Notes:

1. Recipient numbers in care is a distinct count of clients at any time in the 12 month period to 30 June. Clients may have care under multiple types or states, so a client may be counted twice. Population is people aged 70 years and over plus Indigenous Australians aged 50–69 years at 30 June 2011.

2. See statistical supplement, table NHA.53.1 for data and technical notes.

Source: DoHA (unpublished) stocktake from the Australian Government DoHA Ageing and Aged Care data warehouse; Population projections by SLA for 2007–2027 based on 2006 Census prepared for DOHA by ABS according to the assumptions agreed to by DOHA.



### Chapter 7. Improving patients' experience

### At a glance

#### High levels of patient satisfaction across a range of measures

- Seven new measures of patient experience are included in this report, providing a better indication of patient experience across a range of health services.
- The level of patient satisfaction is high across all measures of patient experience—almost all above 80%—though reported patient experiences were poorest for emergency department professionals.

#### GP waiting times more acceptable

- In 2010–11, waiting times for GP appointments were more acceptable to patients than in 2009.
  - In 2009, 17.8% of people felt that they had to wait an unacceptably long period to see a GP, though this fell to 15.5% in 2010–11.
  - The greatest improvement was in Western Australia, where 16.1% of people reported that they felt their waiting time for a GP was unacceptable, down from 25.9% in 2009.

#### 7.1 About this chapter

As agreed by all Australian governments under the National Healthcare Agreement, the longterm objective for patients' experiences within the Australian healthcare system is that:

Australians have positive health and aged care experiences which take account of individual circumstances and care needs (COAG 2008, p. A5).

Patient experience data and information on quality and safety are critical measures of performance in the health system. The data measure whether the population has access to the health services they sought, and whether they were satisfied with the services provided.

#### How do we report on patient experience?

There is only one performance indicator under this objective, which is assessed through nine measures.

As discussed below, there have been changes to the number and type of measures included under this objective compared to the 2009–10 report.

What we report on this year

Of the nine measures for this indicator, eight are reported in this chapter. These are:

- whether people felt waiting times to see a GP were acceptable
- for seven different types of health professionals, we report new baseline data on whether people felt that the professional had:
  - listened carefully
  - shown respect
  - spent enough time with them.

The seven types of health professions reported are:

- general practitioners (GP)
- medical specialists
- dental professionals
- emergency department doctors and specialists
- emergency department nurses
- hospital doctors and specialists
- hospital nurses.

What we do not report on this year

We have not been reported in this year's publication the measure for waiting times to see a specialist. The data for this measure report the rate of people who waited longer than felt acceptable to see a specialist. The rate was unchanged from the council's previous report, at 21.2%.

What we cannot report on this year

On the council's advice, two measures that were reported last year have been omitted this year. These measures were whether people felt that they understood the reasons why:

- they been prescribed medication
- they had been given pathology and imaging tests.

Because these two measures did not seem to clearly and substantially relate to the performance of governments, they have been removed from reporting under the National Healthcare Agreement.



#### Box 7.1 About the data: Patient experience

In addition to the data provided by the Steering Committee, the council requested the ABS to statistically test other related disaggregations from the *Patient Experience Survey*. It was intended that this could give a greater understanding of the indicator by fully utilising available data.

For all measures the data is attitudinal and is self reported. This means that people were asked whether they felt the health professional in question listened carefully, showed them respect or spent enough time with them. Data were collected from personal interviews only.

Data in this chapter have been tested for statistical significance. However, this does not necessarily translate into practical significance, particularly where the underlying differences in the data are very small. For example, nationally 91.4% of people who saw a medical specialist in the last 12 months felt they were listened to carefully, while the rate was 92.4% in NSW. Even though the rate in NSW was statistically significantly higher than the national rate, this may not have much practical significance. The reader should keep this in mind when considering the data.

#### **GP** waiting times

These results are self-reported, meaning patients themselves were asked how long they had to wait to see a GP. Additionally, 'waiting time' for this measure refers to the time between calling the GP/medical centre and actually seeing the GP—this includes waiting time at the GP clinic/medical centre.

#### Very remote areas

Very remote areas are not included in the ABS survey.

#### 7.2 Acceptable waiting times for GPs

### Overall improvement in acceptability of GP waiting times, especially in Western Australia

This measure reports the rates of people who waited longer than they felt was acceptable to get a GP appointment. Waiting time for this measure refers to the time between calling the GP or medical centre and actually seeing the GP—this includes waiting time at the GP clinic or medical centre. Data were first collected in 2009, with the most recent data being for 2010–11.

Waiting times for are an important element of how Australians experience their healthcare system. A consultation with a GP will, for the majority of Australians, be the most common experience with the healthcare system. Waiting times for a GP appointment can be an indication of the degree to which access is equitable, and can influence an individual's health outcomes.

Figure 7.1 summarises significant findings from the 2010–11 data on patients' views about GP waiting times, including comparison to the 2009 data.

- Nationally, the proportion of people who felt that they waited an **unacceptable** time to see a GP fell from 17.8% in 2009 to 15.5% in 2010–11.
- Tasmania (18.8%) and the ACT (19.3%) had significantly higher rates of people who felt their waiting times were unacceptable, compared to the national rate.
- Queensland had a significantly lower rate (12.8%) than the national rate.
- The rate in Western Australia fell 25.9% in 2009 to 16.1% in 2010–11, a marked improvement.
- All other jurisdictions were comparable to the national rate, and to their rate reported last year.
- A significantly higher proportion of people outside of major cities (19.3%) felt that they had to wait an unacceptable time to see a GP, compared to those in major cities (13.9%).
- A significantly higher proportion of people in the most disadvantaged areas (17.8%) felt that their wait to see a GP was too long, compared to the rate in the least disadvantaged areas (12.5%).



#### Figure 7.1 Unacceptable waiting times to see a GP: summary of 2010–11 results

#### Notes:

1. See statistical supplement, tables NHA.58.1 and NHA.58.19 for data and technical notes.

2. Most and least disadvantaged areas refer to, respectively, the most and least disadvanataged 10% of Australia.

3. 2009 data for Western Australia are reported in our 2009–10 report.

Source: ABS (unpublished) Patient Experience Survey 2010-11.



### 7.3 New baseline data—patient experiences with seven health professions

## Dental professionals rate highest overall on patient experience, with the other professions category rating lowest when it comes to spending enough time with patients

For this report, the council has received data for the first time on patients' experiences with seven categories of health professionals.

Figure 7.2 shows the percentage of people who felt that each profession **listened carefully** to them, **showed them respect**, and **spent enough time** with them.

While there are differences across professions, it is notable that each group rates relatively highly on each measure.

- Dental professionals had the highest rating for each of the three characteristics—the ratings for this group on each of the three measures were significantly higher than any other of the professions.
- Emergency department doctors and specialists rated significantly lower on each of the three characteristics than any other professional group. Emergency department nurses also rated lower on most measures than the majority of other professional groups.
  - The nature of emergency department care, where the patient will often be subject to an unexpected, traumatic and stressful episode, may have an affect on these rates.





### Figure 7.2 Proportion of people feeling listened to carefully, respected, and spent enough time with, by profession, 2010–11

Notes:

1. See statistical supplement, tables NHA.58.5, NHA.58.7, NHA.58.9, NHA.58.11, NHA.58.13, NHA.58.15 and NHA.58.17 for data and technical notes.

Source: ABS (unpublished) Patient Experience Survey 2010-11.

### Differences in patient experiences with health professions across States and Territories

Rates measuring patient experience were generally consistent with the national rate across States and Territories. Exceptions to these patterns are shown in Table 7.1, and summarised below.

- **NSW** had significantly higher than national rates for three measures—being shown respect by GPs, and being listened to carefully and shown respect by medical specialists.
- Victoria had one result that was significantly lower than the national rate—being given enough time by ED doctors.
- **Queensland** had significantly higher than national rates for six measures—being shown respect and given enough time by ED doctors, being listened to carefully, shown respect and given enough time by ED nurses, and being listened to carefully by hospital nurses—and significantly lower than the national rate for one—being shown respect by GPs.
- Western Australia had significantly higher rates for three measures, all relating to emergency department care—being shown respect and given enough time by ED doctors, as well as being listened to carefully by ED nurses
- South Australia had significantly lower than national rates for four measures—being shown respect and given enough time by GPs, and being listened to carefully and shown respect by ED doctors
- **Tasmania** had one result that was significantly lower than the national rate—being given enough time by dental professionals.
- The ACT had rates that were significantly higher than the national rates for four measures being listened to carefully and shown respect by ED doctors, being listened to carefully by hospital doctors, and given enough time by hospital nurses.
- The **Northern Territory** had a significantly higher rate for one measure—being listened to carefully by ED nurses—and significantly lower rates for two—being shown respect and given enough time by GPs.

In the following table, only States and Territories where rates were significantly different from the national rate are shown.

## Table 7.1Jurisdictions where rates were significantly different from the national rate<br/>for people feeling: *listened to carefully*; *shown respect*; and *spent enough*<br/>*time* with during care, by profession, 2010–11

Jurisdiction	Listened to	Shown respect	Spent enough time							
General practitioners										
NSW										
Queensland		▼								
South Australia		▼	▼							
Northern Territory										
Medical specialists										
NSW	<b></b>	<b></b>								
Dental professionals										
Tasmania			▼							
Emergency Department doctors or specialists										
Victoria			▼							
Queensland										
Western Australia										
South Australia	▼	▼								
ACT										
	Emergency Dep	partment nurses								
Queensland										
Western Australia										
Northern Territory										
Hospital doctors or specialists										
ACT	<b></b>									
Hospital nurses										
Queensland										
ACT										

Notes:

1.  $\blacktriangle$  = significantly higher rate than the national rate  $\triangledown$  = significantly lower rate than the national rate.

2. Jurisdictions not listed under each profession had rates that were not significantly different from the national rate.

3. See statistical supplement, tables NHA.58.5, NHA.58.7, NHA.58.9, NHA.58.11, NHA.58.13, NHA.58.15 and NHA.58.17 for data and technical notes.

Source: ABS (unpublished) Patient Experience Survey 2010-11.



### Chapter 8. Sustainability

#### At a glance

#### Challenges in reporting and data comparability issues

- Challenges in reporting sustainability and data comparability issues hamper the council's ability to meaningfully report on whether governments are achieving the sustainability objective. For example:
  - the net growth in health workforce indicator does not by itself inform whether there are enough health professionals serving the population both now and into the future
  - it is not clear whether an increase in capital expenditure on hospitals and aged care is necessarily desirable because there are no benchmarks for comparison
  - appropriate data are not available for the research and development indicator, which has affected the council's ability to make comparisons between States and Territories.

#### Results for the sustainability indicators are mixed

- Public health program spending is down, research spending is up, capital investment is stable.
- There is variation between States and Territories in the efficiency of care in public hospitals.

#### 8.1 About this chapter

The World Health Organisation has succinctly observed that 'Health care systems haemorrhage money' (WHO 2010, p. 61). Expenditure on healthcare in Australia is forecast to continue to rise as a consequence of an ageing population, new treatments, poor lifestyle choices and consumer expectations for better health. This underscores the importance of governments ensuring that the system is sustainable.

A long-term objective of the National Healthcare Agreement is that:

Australians have a sustainable health system that can respond and adapt to future needs (COAG 2011c).

Sustainability in this context refers to having adequate health facilities, equipment, workforce, and being responsive to emerging needs. It also refers to having an affordable health care system.



#### How do we report on sustainability?

COAG agreed six indicators to measure progress against three progress measures and one output measure.

What we report on this year

Four indicators are discussed in detail in this chapter:

- public health program expenditure as a proportion of total health expenditure
- capital expenditure on health and aged care facilities as a proportion of capital consumption expenditure on health and aged care facilities (depreciation)
- proportion of recurrent health expenditure spent on health research and development
- cost per case-mix adjusted separation.

#### What we cannot report on this year

There are data quality issues with the net growth in health workforce indicator. The council expects that better quality data will be available in future years from the National Registration and Accreditation Scheme for health professionals.

No data are available for the accredited and filled clinical training positions indicator.

#### Challenges in reporting sustainability

The 2009 National Health Performance Framework says that sustainability is about:

- achieving desired results with cost effective use of resources
- the capacity of the system to sustain workforce and infrastructure
- innovating and responding to emerging needs (AIHW 2009b).

While the six COAG-agreed sustainability indicators relate to the above ideas, we are concerned that many are meaningful by themselves. For example, the net growth in health workforce indicator does not by itself inform the community about whether there are enough health professionals servicing the population. Similarly, the public health program expenditure indicator does not by itself show whether there are sufficient public health programs to meet the current and future needs of the community. It is also not clear whether an increase in capital expenditure on hospitals and aged care is necessarily desirable—or what the scale should be—because there are no benchmarks for comparison.

These challenges hamper the council's ability to report on whether governments are achieving the objective of a sustainable health system that can respond to emerging needs.

#### Data comparability

There are data comparability issues for two sustainability indicators—research and development expenditure, and cost per case-mix adjusted separation.



Appropriate data are not available for the research and development indicator. Data on research and development expenditure is allocated to the State or Territory where it is spent, regardless of which jurisdiction actually provides the funding. This has reduced our ability to make comparisons between States and Territories because one government may contribute funding to research done in another jurisdiction.

In addition, data are not sufficiently comparable to support a time series analysis for the cost per case-mix adjusted separation indicator. Given that this indicator is intended to be a key measure of efficiency, we urge governments to address this by either fixing the deficiencies with this indicator or agreeing on an alternative indicator. Should an alternative indicator be pursued, then it should reflect a more complete range of hospital services, such as those provided to outpatients and in emergency departments. The work of the Independent Hospital Pricing Authority to determine 'national efficient pricing' for hospital services would likely assist in this process.

#### 8.2 Allocation of health and aged care expenditure

### Overall national rate of spending on public health programs falling, despite rising in most States and Territories

This indicator reports the total public health program expenditure by governments as a proportion of total recurrent health expenditure in the same jurisdiction. Public health program expenditure is expenditure on public health activities, such as school and community immunisation programs, communicable disease control strategies, and advertising campaigns aimed at reducing alcohol abuse and obesity in the community.

Figure 8.1 shows Commonwealth, State and Territory government expenditure on public health as a proportion of their total recurrent health expenditure, from 2007–08 to 2009–10.

- Nationally, governments spent 1.6% of all recurrent health expenditure on public health programs—this was down from the 2.0% in 2008–09 and 2.2% in 2007–08.
- There was a fall in Commonwealth expenditure on public health programs between 2007–08 to 2009–10, from 3.1% in 2007–08 to 1.8% in 2009–10. This decline is likely due to previously elevated expenditure required for the introduction of the National Human Papillomavirus vaccination program.
- All States and Territories increased or maintained proportional spending on public health except Victoria (where spending fell from 3.7% in 2007–08 to 2.8 % in 2009–10) and the ACT (where spending fell from 4.0% in 2007–08 to 3.7% in 2009–10).
- In 2009–10, the Northern Territory spent the most of any State or Territory on public health programs (11.4%)—its spending was about seven percentage points higher than Tasmania, the jurisdiction with the second highest proportion (4.5%).

Excluding Commonwealth expenditure, State and Territory governments spent 3.2% of all recurrent health expenditure in 2009–10 on public health programs—this is 0.1 percentage point more than in 2007–08.

## Figure 8.1 Commonwealth, State and Territory government expenditure on public health as a proportion of their total recurrent health expenditure, 2007–08 to 2009–10



Notes:

1. See statistical supplement, tables NHA 66.1, 66.2 and 66.3 for data. *Source:* AIHW (unpublished) health expenditure database.

### Capital expenditure on hospitals and aged care stable nationally—though soaring in Western Australia

This performance indicator reports on the ratio of capital expenditure on health and ageing facilities to capital consumption (depreciation). A ratio of less than one indicates that for every dollar in capital consumption, less than one dollar is being invested in new capital. Older capital stock (for example, ageing equipment that is not replaced) can make it difficult to provide effective and efficient care.

The long timeframes that can accompany capital expenditure and planning mean that data can be volatile from year to year. Using data over a number of years offers a more accurate illustration of jurisdictions' performance against this indicator.

Figure 8.2 shows the ratios for each jurisdiction over five years to 2009–10.

- Nationally, the ratio was relatively stable between 2005–06 and 2009–10.
- Western Australia had the highest ratio in 2009–10 (4.1), followed by Queensland (2.8).
- Victoria had the lowest ratio in 2009–10 (0.3)—however, the AIHW advises that this rate should be treated with caution as, from 2003, Victorian data do not include substantial expenditure from the Partnership Victoria policy for the design, construction, finance and maintenance of major public hospitals by private consortiums.
- Northern Territory's ratio has changed from being less than one over the preceding four years to being 1.9 in 2009–10—meaning its capital investment was almost double its capital consumption for the year.







Notes:

1. Includes expenditure on publicly owned health and aged care facilities only.

- Capital expenditure by Victoria as reported does not take account of projects completed under the Partnership Victoria policy for the design, construction, finance and maintenance of major public hospitals by private consortiums.
- 3. See statistical supplement, tables NHA 67.1, 67.2, 67.3 and Additional.5 for data.

Source: AIHW (unpublished) sourced from the ABS Government Finance Statistics data.

#### Increasing spending on health research and development

Health research can contribute to more effective and efficient health outcomes, whether through new breakthroughs in treatments, medicines and procedures, better health service management, or incremental improvements in care.

Nationally, expenditure on research and development as a proportion of total health expenditure has increased each year between 2005–06 and 2009–10, from 2.5% to 3.6% (see Figure 8.3).

Figure 8.4 shows, after allowing for inflation, the Commonwealth and State and Territory governments increased funding for health research and development in each year from 2005–06 to 2009–10.

- Commonwealth Government expenditure increased from \$1892 million to \$3238 million an increase of 71.1%.
- State and Territory government spending grew from \$320 million to \$740 million—an increase of 131.3%.



### Figure 8.3 Proportion of health expenditure spent on research and development in Australia, 2005–06 to 2009–10

Notes:

1. See statistical supplement, tables NHA 68.1, 68.2, 68.3 and Additional.6 for data. *Source:* ABS (unpublished) Survey of Research and Experimental Development; AIHW (unpublished) health expenditure database.



### Figure 8.4 Commonwealth and State and Territory government expenditure on health research and development, 2005–06 to 2009–10 (2009–10 prices)

Notes:

1. Constant price health expenditure for 2005–06 to 2009–10 is expressed in terms of 2009–10 prices.

*Source:* ABS (unpublished) Survey of Research and Experimental Development; AIHW (unpublished) health expenditure database.

<sup>2.</sup> See statistical supplement, Additional.6 for data.



#### 8.3 Cost of hospital services

Efficiency of service delivery in hospitals is critical to sustainability. The Productivity Commission has estimated that the greatest gains in health system efficiency may be through reforms that affect hospitals, largely due to the sheer size of the sector.

There is one COAG agreed performance indicator that measures efficiency of service delivery in hospitals—the average cost per case-mix adjusted separation.

#### Average cost per case-mix adjusted separation

Case-mix adjustment takes into account the different mix of cases dealt with in each health system and the relative costs of different kinds of cases. For example, a jurisdiction with a higher proportion of older people, may have a different mix of cases to a jurisdiction with a younger age profile. This may result in more complex—and expensive to treat—conditions.

When interpreting this indicator, it is important to bear in mind that jurisdictions with a larger proportion of its population in more remote locations may have higher patient service costs. In addition, the data for the indicator does not include all hospital services. For example, the cost of providing services in private hospitals, emergency departments and to out-patients (patients receiving medical treatment without being admitted) are not included.

Figure 8.5 shows average costs in 2009–10:

- the national average cost per admitted patient was \$4684
- South Australia had the lowest average cost (\$4372)—almost 7% lower than the national average
- the Northern Territory had the highest average cost (\$5517), followed by Tasmania (\$5363)—these were respectively 17.8% and 14.5% higher than the national average, and may reflect the costs involved in servicing relatively small and remote populations.



Figure 8.5 Case-mix adjusted average cost per admitted patient, 2009–10

Notes:

- 1. Data excludes depreciation.
- 2. Limited to public hospitals.
- 3. See statistical supplement, table NHA.69.1 for data, further notes and sources.

#### 8.4 Health workforce

The sustainability of Australia's healthcare will depend on a skilled, flexible and innovative health workforce that can respond to the changing needs of the community.

#### Accredited and filled clinical training positions

There are no data available for this indicator.

The challenge in this area has been to ensure that clinical training positions match the number of medical graduates emerging from Australian universities.

The Medical Training Review Panel's Fourteenth Report shows that 2380 students graduated from Australian medical schools in 2009, and that the number of medical graduates is expected to grow by 59.4% to 3794 students by 2015 (MTRP 2011, p. 35 & 40). In contrast, there were only 2243 postgraduate year one trainees in 2009 and 2394 in 2010 (growth of 6.7%) (MTRP 2011, p. 44). Based on these figures, the rate of growth for training positions may not be sufficient to meet future expected demand (see Figure 8.6).

The accredited and filled training positions indicator is an important starting point to map what is currently known about clinical training activity and placement capacity. Governments should work towards either resolving current data issues or refining this indicator.

### Figure 8.6 Number of medical graduates and number commencing postgraduate year one trainees (actual and projected)



Notes:

Source: (MTRP 2011)

<sup>1.</sup> Number of medical graduates includes domestic and international graduates.

<sup>2.</sup> The commencement trendline is an extrapolation of historical data from 2007 to 2010.

<sup>3.</sup> See statistical supplement, table Additional.7 for data.

### Chapter 9. Performance benchmarks

#### At a glance

#### Only two benchmarks can be reported

- Only two of the seven performance benchmarks have acceptable data for reporting:
  - the rate of Staphylococcus aureus bacteraemia in hospitals
  - to halve the gap in mortality (death) rates for Indigenous children under five.
- Target achieved at both at both the State and Territory and national level for rates of Staphylococcus aureus bacteraemia—the national rate is 1.1 per 10 000 patient days, which is almost half the benchmark rate of 2.0 per 10 000 patient days.
- The gap is closing between Indigenous and non-Indigenous child (0-4 years) death rates.
  - The Indigenous child death rate decreased from 252.3 per 100 000 children in 1998 to 202.6 per 100 000 children in 2010 (for NSW, Queensland, West Australia, South Australia and the Northern Territory combined). While the gap is narrowing, the Indigenous child death rate is still double the non-Indigenous rate.
  - In 2010, the rate was highest in the Northern Territory (322.2 per 100 000 children).

#### Smoking rates have fallen over time

• While smoking rates have been declining in recent years, the council has not received new data on smoking rates for this report—the most recent data received was published in the 2007–08 baseline report.

#### 9.1 About this chapter

COAG agreed that the National Healthcare Agreement would be subject to review and improvement in performance would be demonstrated by progress toward nine performance benchmarks. These benchmarks are similar in purpose to 'targets' specified in other National Agreements.

On 2 August 2011 COAG deleted two of the original nine benchmarks (COAG 2011c). The State, Territory and the Commonwealth Governments announced two new agreements in 2011—the National Health Reform Agreement and the National Partnership Agreement on Improving Public Hospital Services—which address the deleted performance benchmarks.

This chapter discusses the seven remaining benchmarks and, for the two with data available, presents these data based on available performance information.

#### Accountability for meeting performance benchmarks

A number of performance benchmarks are national rates, rather than a rate for each jurisdiction. The reference to national rates reflects that meeting these high-level benchmarks is a shared responsibility of the Commonwealth Government together with the State and Territory governments. It is important to note that all jurisdictions are measured against the same national benchmark at the agreed timeframe, regardless of current performance.

#### How do we report on performance benchmarks

Of the seven performance benchmarks, two are reported against trajectories—closing the life expectancy gap for Indigenous Australians within a generation and halving the mortality gap for Indigenous children under five within a decade (see section 9.4). The purpose of the trajectories is to provide guidance on whether current trends are on track to achieve the targets within the timeframes set by COAG. They are not intended to be forecasts or predictions of what is likely to happen (for more information see chapter 2 of *Indigenous Reform 2010–11: Comparing performance across Australia*).

#### What we report on this year

- For two performance benchmarks—the rate of *Staphylococcus aureus* (including MRSA) bacteraemia in hospitals and to halve the gap in mortality rates for Indigenous children under five—data were received that were acceptable for reporting.
- There are no new data available for the benchmark regarding smoking rates, but this is discussed in anticipation of new data next year.

Three performance benchmarks are discussed in detail in this chapter.

- By 2018, reduce the national smoking rate to 10% of the population and halve the Indigenous smoking rate.
- The rate of *Staphylococcus aureus* (including MRSA) bacteraemia is no more than 2.0 per 10 000 occupied bed days for acute care public hospitals by 2011–12 in each State and Territory.
- Halve the gap in mortality for Indigenous children under five within a decade.

#### What we do not report on this year

• Data for the performance benchmark by 2014–15, improve the provision of primary care and reduce the proportion of potentially preventable hospital admissions by 7.6% over the 2006–07 baseline to 8.5% of total hospital admissions were received, but were not comparable over time. Two supplementary measures were developed that are comparable over time. However, these are proxy measures which deviate from the benchmark measure—as a result, the supplementary data received are not directly related to the performance benchmark. Because of these data complications, neither the original nor the supplementary measures are appropriate for assessment against the benchmark.



What we cannot report on this year

The following performance benchmarks have no available new data.

- Reduce the age-adjusted prevalence rate for type 2 diabetes to 2000 levels within 15 years.
- By 2017, increase by five percentage points the proportion of Australian adults and Australian children at a healthy body weight, over the 2009 baseline.
- Close the life expectancy gap for Indigenous Australians within a generation.

#### 9.2 Incidence of adult smoking

#### **COAG benchmark:**

By 2018, reduce the national smoking rate to 10% of the population and halve the Indigenous smoking rate

#### Looking back—what might historical data tell us about progress?

Australia has performed well in reducing smoking rates since the 1980s. Our governments should be commended for setting a challenging target for 2018, which would substantially improve health outcomes in Australia.

The council has not received new data on smoking rates for this report—the most recent data we received was published in our 2007–08 baseline report. In that report, the adult smoking rate was 19.1%, though this increased with remoteness and was far higher among adult Indigenous Australians, among whom almost 1 in 2 smoked.

In anticipation of receiving new data next year, we have looked at historical data on smoking rates from three sources. This provides a sense of how the adult smoking rate has been declining in recent years, and how much further there is to go to achieve the 10% target for adult smoking. Less historical data is available on the Indigenous smoking rate.

Figure 9.1 shows data on smoking rates since 1980. While these historical data show a fall over time in smoking rates, the council has not attempted to extrapolate these to form a projection to 2018. The figure highlights that the commitment to reduce smoking must remain strong if the 10% target is to be achieved.

This is particularly the case where smoking prevalence is highest, including outside of our major cities—where rates are significantly higher—and among Indigenous Australians.

In our report last year, we said that more frequent data on smoking is critical to monitoring progress toward this target.





#### Figure 9.1 National adult smoking rates, 1980–2010

Notes:

- 1. The COAG target, the data from the National Health Survey and the Centre for Behavioural Research in Cancer are for the population aged 18 years or older, while the National Drug Strategy Household Survey data are for the population aged 14 years or older.
- 2. See statistical supplement, table Additional.1 for data.

*Source:* Cancer Council Victoria Centre for Behavioural Research in Cancer (2008) Tobacco in Australia, Third Edition; ABS (various years) National Health Survey various years; AIHW (2011) National Drug Strategy Household Survey various years.

#### 9.3 Rate of *Staphylococcus aureus* bacteraemia in acute care

#### **COAG benchmark:**

The rate of *Staphylococcus aureus* (including MRSA) bacteraemia is no more than 2.0 per 10 000 occupied bed days for acute care public hospitals by 2011–12 in each State and Territory

This benchmark relates to adverse events in hospitals by reporting on healthcare-associated *Staphylococcus aureus* (commonly referred to as 'Staph') bacteraemia in public acute care hospitals. Patients with open wounds and weakened immune systems are at heightened risk of *Staphylococcus aureus* bacteraemia.

#### Target achieved—rate is below the benchmark

This year is the first time that the data have been of acceptable quality to allow the council to make comparisons between jurisdictions. The benchmark is to be completed before the end of 2011–12, and the 2010–11 data consistently achieves this goal.

Figure 9.2 shows that the total rate of *Staphylococcus aureus* bacteraemia is below the benchmark in each State and Territory. For 2010–11, the rate of *Staphylococcus aureus* bacteraemia ranges from 0.9 per 10 000 patient days in the ACT, South Australia and Victoria to 1.4 in the Northern Territory. The national rate is 1.1 per 10 000 patient days, which is almost half the benchmark rate of 2.0 per 10 000 patient days.



### Figure 9.2 The total rate of *Staphylococcus aureus* bacteraemia in 2010–11 with the national benchmark

Notes:

- The SAB patient episodes were associated with both admitted patient care and with non-admitted patient care (including emergency departments and outpatient clinics). The comparability of the SAB rates among jurisdictions and over time is limited because of coverage differences and because the count of patient days reflects the amount of admitted patient activity, but does not necessarily reflect the amount of non-admitted patient activity.
- 2. Queensland data only includes patients 14 years of age and over, see Box 9.1 for other data limitiations

3. See statistical supplement, table NHA.39.1 for data and technical notes.

Source: AIHW (unpublished) sourced from State and Territory healthcare-associated infection surveillance data.

#### 9.4 Closing the gap in death rates for Indigenous children under five

#### **COAG benchmark:**

Halve the gap in mortality rates for Indigenous children under five within a decade

The COAG target for child mortality (death) is to halve the gap in the mortality of children aged 0–4 years by 2018. The target has been set for a total of selected States and Territories, rather than individual jurisdictions. The total comprises NSW, Queensland, Western Australia, South Australia and the Northern Territory. The baseline year is 2008 and the target is 2018.

Deaths data are currently not available for Western Australia from 2007 to 2009 due to data quality issues (see Box 9.1). As this includes the baseline year, further work is needed to establish a baseline. Some 2006–2010 results are reported below for the four jurisdictions with adequate identification of Indigenous deaths and sufficient quality data for these years (NSW, Queensland, South Australia and the Northern Territory—see Figure 9.3).

The performance benchmark is related to performance indicator 19—infant/young child mortality (discussed in chapter 3).



#### The gap is closing in child death rates

In the five-year period, 2006–2010, death rates for Indigenous children aged 0–4 years, in each of the four states reported, were higher than for non-Indigenous children. The rate was highest in the Northern Territory (322.2 per 100 000 children) and lowest in NSW (157.4 per 100 000 children).

Around 83% of child deaths (0–4 years) were of children aged less than one year (infant deaths). Infant death rates for Indigenous children were highest in the Northern Territory (13.1 infant deaths per 1000 live births) and lowest in South Australia (5.3 deaths per 1000 live births). The gap between Indigenous and non-Indigenous infant death rates was 9.5 per 1000 live births in the Northern Territory and 1.9 per 1000 in South Australia.

### Figure 9.3 Infant deaths per 1000 live births, by Indigenous status, selected States and Territories, 2006 to 2010



Notes:

1. Infant deaths are those of children in the first year of life.

2. See Indigenous reform 2010–11: Comparing performance across Australia, statistical supplement, table NIRA.9.3 for data and technical notes.

Source: ABS (unpublished) Deaths, Australia; ABS (unpublished) Births, Australia.



Death rates over time

As data for Western Australia for 2007 to 2009 are not currently available, analyses of death rates over time have been limited to the period 1998 to 2010 excluding Western Australian deaths for 2007 to 2009. No trajectories or targets are used.

In NSW, Queensland, Western Australia, South Australia and the Northern Territory combined, death rates for Indigenous children aged 0–4 decreased from 252.3 deaths per 100 000 children in 1998 to 202.6 per 100 000 children in 2010 (see Figure 9.4). This was a significant decrease.

There was also a significant decrease from 1998 to 2010 for non-Indigenous children. However, the average annual change was much higher for Indigenous children and therefore the gap reduced (see Figure 9.4).

- The child death rate decreased by an average 5.2 deaths per 100 000 per year for Indigenous children.
- In contrast, the child death rate for non-Indigenous children decreased by an average of 1.5 deaths per 100 000 annually.





Notes:

- 1. Data are for NSW, Queensland, Western Australia, South Australia and the Northern Territory combined.
- 2. A combined total is not available for 2007 to 2009 due to data quality issues in Western Australia, see Box 9.1.

3. See Indigenous reform 2010–11: Comparing performance across Australia, statistical supplement, table NIRA.9.1 for data and technical notes.

Source: AIHW analysis of National Mortality Database; ABS (unpublished) Perinatal Deaths, Australia, various years; ABS (unpublished) Births, Australia, various years; ABS (unpublished) Deaths, Australia, various years.

#### Box 9.1 About the data

#### Staphylococcus aureus bacteraemia-using a rate of per 10 000 patient days

The measure for this performance benchmark is reported as a rate per number of patient days rather than as a rate per occupied bed days (as per the title in the agreement) because standard national data on occupied bed days are not available. The rates are defined as:

- Patient days is the total number of days for patients who were admitted for an episode of care and who separated during a specified reference period. A patient who is admitted and separated on the same day is allocated 1 patient day. A patient who is admitted on one day and separates on the next day is allocated 1 patient day.
- Occupied bed days is the total number of occupied beds for each day of the specified reference period. A bed occupied by two different patients during the same day is allocated 1 occupied bed day. A bed occupied by a patient who is admitted on one day and separates on the next day is allocated 2 occupied bed days.

Over the reference period of one year, it is expected that the difference between the total number of patient days and total number of occupied bed days is minimal and thus the use of patient days rather than occupied bed days for the performance benchmark has minimal, if any, effect on the reported rates. This measure has been agreed through Australian Health Ministers' Advisory Council processes as the most appropriate measure for the performance benchmark.

#### Staphylococcus aureus bacteraemia-data comparability

The comparability of the rates of *Staphylococcus aureus* bacteraemia across jurisdictions is limited. This is because the count of patient days (the denominator used to calculate the rate) reflects admitted patient activity, while the incidence of *Staphylococcus aureus* (the numerator used to calculate the rate) includes non-admitted and admitted patient activity.

#### Death data for Western Australia in 2007–2009

This issue has been investigated by the ABS, which advises Western Australian Aboriginal deaths have been overcounted by up to 20% in this period. As the revised data are not yet available, there are no total figures reported for these years.



# Chapter 10. Reporting on National Partnerships

#### At a glance

### We are not reporting all information on National Partnerships that support the objectives of the National Healthcare Agreement this year

- We cannot clearly link some activities to the outcomes and objectives of the National Healthcare Agreement.
- We cannot clearly mark progress on some commitments or analyse some information comparatively.
- We sometimes do not have the information to report on activity, for example, of the eight National Partnerships that support the National Healthcare Agreement, two of the National Partnerships do not have indicator specifications and/or the data is not available.

#### **Progress under health National Partnerships**

- We note that progress has been made on three National Partnerships:
  - for Schedule B of the National Partnership on Hospital and Health Workforce, Health Workforce Australia has developed a supply and demand database (National Statistical Resource) and completed a health workforce study
  - for Schedule C of the National Partnership on Hospital and Health Workforce, all States and Territories have reported that they have exceeded their individual targets to increase the provision of subacute care services for 2010–11
  - for the National Partnership on Essential Vaccines, all jurisdictions have been fully eligible for reward payments in the first two years of assessment
  - for the National Partnership on Elective Surgery Waiting Lists, all jurisdictions met their volume targets and the partnership has concluded.

#### 10.1 National Partnerships that support National Agreements

National Partnerships between the Commonwealth and the States and Territories are based on agreed policy objectives in areas of nationally significant reform or service delivery improvements, and define the associated outputs and performance benchmarks (COAG 2008b).

Some National Partnerships involve 'reward funding' from the Commonwealth to States and Territories that deliver on outcomes according to agreed performance benchmarks, and the council's reports on these are on our website at <u>www.coagreformcouncil.gov.au</u>.

#### The council's role

In addition to reports on reward National Partnerships, the council's other role in relation to National Partnerships is to publish performance data relating to Partnerships to the extent that they support the objectives in National Agreements (COAG 2011a, Cl. C5(c)).

This is the second year we have reported on National Partnerships in this way.

- **Our task**. Our task is to highlight progress implementing National Partnerships that support the objectives of the National Healthcare Agreement. We do not report on detailed implementation of the National Partnerships or measure if that activity is contributing to the outcomes of the Agreement.
- **Data**. State and Territory performance information is provided in annual reports for most National Partnerships. At the council's request, the Commonwealth provides the council with a summary of performance information.

#### 10.2 Reporting performance in 2010–11

There are eight National Partnerships that support the objectives of the National Healthcare Agreement:

- National Partnership Agreement on Hospital and Health Workforce Reform
- National Partnership Agreement on the Elective Surgery Waiting List Reduction Plan
- National Partnership Agreement on Essential Vaccines
- National Partnership Agreement on Preventive Health
- National Partnership Agreement on Improving Public Hospital Services
- National Partnership Agreement on Health Infrastructure
- National Partnership Agreement on Health Services
- National Partnership Agreement on E-Health.

Progress can only be highlighted against three National Partnerships. Two of the National Partnerships do not have specifications and/or the data is not available. Three National Partnerships do not lend themselves to meaningful comparative performance reporting (see Table 10.1).



National Partnership	Status			
Hospitals and Health Workforce	Performance information submitted to council			
Elective Surgery Waiting Lists	Concluded. Performance information is set out in separate stand-alone reports			
Essential Vaccines	Performance information is set out in separate stand-alone reports			
Preventive Health	Specifications have not been determined and data not available			
National Health Reform Agreement: Improving Public Hospital Services	Not due to be reported until the end of 2012			
Health Infrastructure	No common reform initiatives			
Health Services	No common reform initiatives			
E-Health	No common indicators or benchmarks			

#### Table 10.1 National Partnerships that support the National Healthcare Agreement

#### Concerns with reporting on National Partnerships in National Agreement reports

The council has three main concerns about reporting on National Partnerships in National Agreement reports.

For some National Partnerships, we cannot link the activity to the outcomes and objectives in the National Agreement. Reports on some National Partnerships generally provide information on activity without evidence of the effect the activity has on outcomes.

We cannot clearly mark progress against some commitments or analyse them comparatively. Reports on some National Partnerships generally do not provide context that would allow us to assess progress and some information is reported against implementation plans that are not structured to allow for clear and comparative progress reporting.

We do not have the information to report on some National Partnerships. Indicators and benchmarks for some National Partnerships do not have specifications and/or the data is not available. The National Partnership Agreement on E-Health does not contain any performance measures for the council to report on.

As a result of these concerns, we have recommended that COAG:

- note that, for some existing National Partnerships, we cannot link activities or government performance to the objectives of the related National Agreement
- agree that activities under future National Partnerships covered by National Agreements clearly link to the objectives of the related National Agreement.

#### What have we found this year?

Each year, the council will review the annual reports and progress information it receives on National Partnerships, and report notable achievements or specific information that can be linked to the outcomes and objectives of the National Healthcare Agreement.

This year, we have not reported all progress information provided for the reasons above but we note that there have been some progress highlights:

- for Schedule B of the National Partnership on Hospital and Health Workforce (covering health workforce), Health Workforce Australia has developed a database which brings together supply and demand data (National Statistical Resource) and completed a study which determined the size of the workforce needed for 30 health professions out to 2025.
- for Schedule C of the National Partnership on Hospital and Health Workforce (covering subacute care), all States and Territories have reported that they have exceeded their targets to increase subacute care services for 2010–11 (see Table 10.2).

Table 10.2	Subacute care services: baseline, targets and actual growth in bed day
	equivalents between 2007–08 (baseline) and 2010–11, by State and
	Territory

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Subacute services <sup>1</sup> in 2007–08 (baseline)	679 048	786 648	290 368	489 774	197 583	46 815	62 745	11 227
Subacute services in 2010–11	848 002	897 245	383 226	566 275	260 973	54 398	73 002	16 007
Targeted growth (%)	10.0 to 2010– 11	13.8 to 2010– 11	5 per annum	4.8 per annum	10.5 to 2010-11	14.8 to 2010– 11	5 per annum	19.0 to 2010– 11
Actual increase since baseline (%) <sup>1</sup>	24.9	14.1	31.9	15.6	32.1	16.2	16.4	43

Notes:

 This measure is the percentage increase in subacute services since the baseline. Subacute services (in terms of bed day equivalents – BDE) are calculated by adding admitted Patient Days (PD) to Non-Admitted Patient Occasions Of Service (NAPOOS), divided by a conversion factor (ratio of Admitted bed day cost. to Non-Admitted count cost). BDE = PD + (NAPOOS/Conversion factor)

Source: (DoHA)



**Reward-based National Partnerships** 

In addition, we assessed State and Territory performance under two reward-based National Partnerships, set out in separate stand-alone reports.

- For the National Partnership on Essential Vaccines, the most recent report found that all jurisdictions achieved at least three of the four benchmarks. All jurisdictions were fully eligible for reward payments from the Commonwealth (our full report for this assessment is available on our website at <a href="http://www.coagreformcouncil.gov.au">www.coagreformcouncil.gov.au</a>).
- For the National Partnership on Elective Surgery Waiting Lists, all jurisdictions met their volume targets. This National Partnership has concluded and our full report on this assessment is available on our website.




# Appendix A. Elective surgery performance by State and Territory

This analysis is in addition to that presented in Chapter 4 of this report.

# Waiting times in detail—change in performance by procedure from 2007–08 to 2010–11

Elective surgery waiting times are one of a few indicators for which the council has four years of data. These data are also generally of good quality.

Figures A.1 to A.8, show the performance of each State and Territory against the 16 selected elective surgery procedures for which the council has data. Performance at the 50th and 90th percentile wait times are provided.

On the left hand side of each figure is the waiting time—in days—for that specific jurisdiction compared to the national rate for each procedure. This shows how each jurisdiction has performed against the national waiting time for 2010–11.

On the right hand side of each figure is a bar graph showing the relative changes in waiting times in that jurisdiction for each procedure from 2007–08 to 2010–11 This shows whether waiting times are shortening or lengthening in each jurisdiction.

Both the left and right hand sides are necessary for a complete picture of how each jurisdiction is performing. For example, a jurisdiction may have reduced its waiting times since the baseline year, though still have longer wait times than the national average.

#### Where can you find the data?

The original data tables, along with technical notes, for the following elective surgery waiting time figures are available in our statistical supplement at table NHA 34.2 (for 2010–11) and table NHA 34.10 (for 2007-08).

Aust

90

54

17

25

60

49

57

108

47

47

159

94

108

173

100

36

NSW

227

61

16

23

66 55

70

316

68

62

312

192 149

295

101

47



#### Figure A.1 NSW—Elective surgery waiting time performances

Coronary artery bypass graft

Cataract extraction

Haemorrhoidectomy

Inguinal herniorrhaphy

Cholecystectomy

Cystoscopy

Hysterectomy

Myringoplasty

Myringotomy

Prostatectomy

Tonsillectomy

Total hip replacement

Total knee replacement

Varicose veins stripping & ligation

Septoplasty

Total

-50

-25

0

Actual waiting times in 2010–11

Waiting times are measured in days

#### Actual waiting times in 2010–11

ust	Aust	NSW
43 Cataract extraction	343	361
71 Cholecystectomy	171	240
25 Coronary artery bypass graft	75	77
15 Cystoscopy	115	105
55 Haemorrhoidectomy	255	310
01 Hysterectomy	201	300
59 Inguinal herniorrhaphy	259	329
69 Myringoplasty	369	383
39 Myringotomy	139	297
70 Prostatectomy	170	222
82 Septoplasty	382	385
51 Tonsillectomy	351	370
57 Total hip replacement	357	363
76 Total knee replacement	376	372
68 Varicose veins stripping & ligation	368	350
52 Total	252	333





Percentage change from baseline

25

50

75

100



Appendix A. Elective surgery performance by State and Territory Healthcare 2010–11: Comparing performance across Australia



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Figure A.2 <sup>V</sup> Victoria—Elective surgery waiting time performance

	Actual wa	aiting times in 2010–11	Change in waiting at the 50th percentile
Vic	Aust		Shorter waiting time Longer waiting time
57	90	Cataract extraction	
50	54	Cholecystectomy	
22	17	Coronary artery bypass graft	
23	25	Cystoscopy	-
63	60	Haemorrhoidectomy	
49	49	Hysterectomy	
54	57	Inguinal herniorrhaphy	•
84	108	Myringoplasty	
49	47	Myringotomy	
29	47	Prostatectomy	
110	159	Septoplasty	•
97	94	Tonsillectomy	
98	108	Total hip replacement	
133	173	Total knee replacement	
104	100	Varicose veins stripping & ligation	
36	36	Total	

-50

-25

Waiting times are measured in days

Actual waiting times in 2010–11



Shorter waiting time Longer waiting time

0

25

Percentage change from baseline

50

75

100





Aust

90

54

17

25

60

49

Qld

48

52

7

28

61

40



#### Figure A.3 Queensland—Elective surgery waiting time performance

Cataract extraction

Haemorrhoidectomy

Coronary artery bypass graft

Cholecystectomy

Cystoscopy

Hysterectomy

Inguinal herniorrhaphy 58 57 108 68 Myringoplasty 47 35 Myringotomy 45 47 Prostatectomy 58 159 Septoplasty 94 Tonsillectomy 56 78 108 Total hip replacement 109 173 Total knee replacement 100 Varicose veins stripping & ligation 63 29 36 Total

Actual waiting times in 2010–11

Waiting times are measured in days

# Change in waiting at the 90th percentile

Percentage change from baseline

Actual waiting times in 2010–11

Qld	Aust	
333	343	Cataract extraction
141	171	Cholecystectomy
58	75	Coronary artery bypass graft
126	115	Cystoscopy
155	255	Haemorrhoidectomy
141	201	Hysterectomy
159	259	Inguinal herniorrhaphy
190	369	Myringoplasty
108	139	Myringotomy
169	170	Prostatectomy
263	382	Septoplasty
183	351	Tonsillectomy
273	357	Total hip replacement
350	376	Total knee replacement
305	368	Varicose veins stripping & ligation
148	252	Total





Figure A.4 Western Australia—Elective surgery waiting time performance

# Actual waiting times in 2010–11 Change in waiting at the 50th percentile WA Aust Shorter waiting time

35	90	Cataract extraction
28	54	Cholecystectomy
14	17	Coronary artery bypass graft
27	25	Cystoscopy
34	60	Haemorrhoidectomy
43	49	Hysterectomy
33	57	Inguinal herniorrhaphy
90	108	Myringoplasty
43	47	Myringotomy
33	47	Prostatectomy
94	159	Septoplasty
78	94	Tonsillectomy
80	108	Total hip replacement
94	173	Total knee replacement
68	100	Varicose veins stripping & ligation
29	36	Total

#### Waiting times are measured in days

Actual waiting times in 2010–11



#### Change in waiting at the 90th percentile

WA Aust 159 343 Cataract extraction 171 163 Cholecystectomy 63 75 Coronary artery bypass graft 176 115 Cystoscopy 212 255 Haemorrhoidectomy 127 201 Hysterectomy 168 259 Inguinal herniorrhaphy 246 369 Myringoplasty 114 139 Myringotomy 119 170 Prostatectomy 349 382 Septoplasty 210 351 Tonsillectomy 357 237 Total hip replacement 376 306 Total knee replacement 274 368 Varicose veins stripping & ligation 159 252 Total Waiting times are measured in days







A	Actual waiting times in 2010–11						
SA	Aust						
87	90	Cataract extraction					
49	54	Cholecystectomy					
23	17	Coronary artery bypass graft					
35	25	Cystoscopy					
55	60	Haemorrhoidectomy					
54	49	Hysterectomy					
43	57	Inguinal herniorrhaphy					
182	108	Myringoplasty					
48	47	Myringotomy					
49	47	Prostatectomy					
137	159	Septoplasty					
71	94	Tonsillectomy					
118	108	Total hip replacement					
136	173	Total knee replacement					
204	100	Varicose veins stripping & ligation					
38	36	Total					

#### Figure A.5 South Australia—Elective surgery waiting time performance



Waiting times are measured in days

#### Actual waiting times in 2010–11 SA Aust

349	343	Cataract extraction
99	171	Cholecystectomy
88	75	Coronary artery bypass graft
98	115	Cystoscopy
220	255	Haemorrhoidectomy
169	201	Hysterectomy
136	259	Inguinal herniorrhaphy
354	369	Myringoplasty
110	139	Myringotomy
91	170	Prostatectomy
301	382	Septoplasty
263	351	Tonsillectomy
312	357	Total hip replacement
351	376	Total knee replacement
411	368	Varicose veins stripping & ligation
208	252	Total









Figure A.6 Tasmania—Elective surgery waiting time performance

Actual waiting times in 2010–11						
Tas	Aust					
246	90	Cataract extraction				
68	54	Cholecystectomy				
28	17	Coronary artery bypass graft				
28	25	Cystoscopy				
33	60	Haemorrhoidectomy				
48	49	Hysterectomy				
54	57	Inguinal herniorrhaphy				
180	108	Myringoplasty				
119	47	Myringotomy				
82	47	Prostatectomy				
231	159	Septoplasty				
120	94	Tonsillectomy				
194	108	Total hip replacement				
377	173	Total knee replacement				
85	100	Varicose veins stripping & ligation				
38	36	Total				

#### Shorter waiting time Longer waiting time



Change in waiting at the 50th percentile

#### Waiting times are measured in days

Actual waiting times in 2010–11

#### Change in waiting at the 90th percentile







#### Figure A.7 Australian Capital Territory—Elective surgery waiting time performance

Actual waiting times in 2010–11						
АСТ	Aust					
140	90	Cataract extraction				
70	54	Cholecystectomy				
13	17	Coronary artery bypass graft				
73	25	Cystoscopy				
126	60	Haemorrhoidectomy				
55	49	Hysterectomy				
82	57	Inguinal herniorrhaphy				
317	108	Myringoplasty				
164	47	Myringotomy				
82	47	Prostatectomy				
404	159	Septoplasty				
336	94	Tonsillectomy				
253	108	Total hip replacement				
328	173	Total knee replacement				
319	100	Varicose veins stripping & ligation				
76	36	Total				



Waiting times are measured in days

#### Actual waiting times in 2010–11

АСТ	Aust	
300	343	Cataract extraction
261	171	Cholecystectomy
49	75	Coronary artery bypass graft
380	115	Cystoscopy
286	255	Haemorrhoidectomy
218	201	Hysterectomy
290	259	Inguinal herniorrhaphy
672	369	Myringoplasty
384	139	Myringotomy
749	170	Prostatectomy
894	382	Septoplasty
637	351	Tonsillectomy
581	357	Total hip replacement
585	376	Total knee replacement
584	368	Varicose veins stripping & ligation
378	252	Total



Change in waiting at the 90th percentile



Waiting times are measured in days



NT

Aust



NTAust12690Cataract extraction6854Cholecystectomy-17Coronary artery bypass graft8325Cystoscopy6060Haemorrhoidectomy7149Hysterectomy5857Inguinal herniorrhaphy147108Myringoplasty2247Myringotomy5647Prostatectomy277159Septoplasty6494Tonsillectomy148108Total hip replacement213173Total knee replacement94100Varicose veins stripping & ligation3336Total	Α	ctual wa	aiting times in 2010–11	Change in wait	ting at the 50th percentile
12690Cataract extraction6854Cholecystectomy-17Coronary artery bypass graft8325Cystoscopy6060Haemorrhoidectomy7149Hysterectomy5857Inguinal herniorrhaphy147108Myringoplasty2247Myringotomy5647Prostatectomy5647Prostatectomy6494Tonsillectomy148108Total hip replacement213173Total knee replacement94100Varicose veins stripping & ligation3336Total	ΝΤ	Aust		Shorter waiting time	Longer waiting time
6854Cholecystectomy-17Coronary artery bypass graft8325Cystoscopy6060Haemorrhoidectomy7149Hysterectomy5857Inguinal herniorrhaphy147108Myringoplasty2247Myringotomy5647Prostatectomy5647Prostatectomy6494Tonsillectomy148108Total hip replacement213173Total knee replacement94100Varicose veins stripping & ligation3336Total	126	90	Cataract extraction		
-17Coronary artery bypass graft8325Cystoscopy6060Haemorrhoidectomy7149Hysterectomy5857Inguinal herniorrhaphy147108Myringoplasty2247Myringotomy5647Prostatectomy6494Tonsillectomy148108Total hip replacement213173Total knee replacement94100Varicose veins stripping & ligation3336Total	68	54	Cholecystectomy		
8325Cystoscopy6060Haemorrhoidectomy7149Hysterectomy5857Inguinal herniorrhaphy147108Myringoplasty2247Myringotomy5647Prostatectomy277159Septoplasty6494Tonsillectomy148108Total hip replacement213173Total knee replacement94100Varicose veins stripping & ligation3336Total	_	17	Coronary artery bypass graft		
6060Haemorrhoidectomy7149Hysterectomy5857Inguinal herniorrhaphy147108Myringoplasty2247Myringotomy5647Prostatectomy5647Septoplasty6494Tonsillectomy148108Total hip replacement213173Total knee replacement94100Varicose veins stripping & ligation3336Total	83	25	Cystoscopy		
7149Hysterectomy5857Inguinal herniorrhaphy147108Myringoplasty147108Myringotomy2247Myringotomy5647Prostatectomy277159Septoplasty6494Tonsillectomy148108Total hip replacement213173Total knee replacement94100Varicose veins stripping & ligation3336Total	60	60	Haemorrhoidectomy		
5857Inguinal herniorrhaphy147108Myringoplasty2247Myringotomy5647Prostatectomy277159Septoplasty6494Tonsillectomy148108Total hip replacement213173Total knee replacement94100Varicose veins stripping & ligation3336Total	71	49	Hysterectomy		
147108Myringoplasty2247Myringotomy2247Myringotomy5647Prostatectomy277159Septoplasty6494Tonsillectomy148108Total hip replacement213173Total knee replacement94100Varicose veins stripping & ligation3336Total	58	57	Inguinal herniorrhaphy		
2247Myringotomy5647Prostatectomy277159Septoplasty6494Tonsillectomy148108Total hip replacement213173Total knee replacement94100Varicose veins stripping & ligation3336Total	147	108	Myringoplasty	-63.9	
5647Prostatectomy277159Septoplasty6494Tonsillectomy148108Total hip replacement213173Total knee replacement94100Varicose veins stripping & ligation3336Total	22	47	Myringotomy		
277159Septoplasty6494Tonsillectomy148108Total hip replacement213173Total knee replacement94100Varicose veins stripping & ligation3336Total	56	47	Prostatectomy		
6494Tonsillectomy148108Total hip replacement213173Total knee replacement94100Varicose veins stripping & ligation3336Total	277	159	Septoplasty		
148108Total hip replacement213173Total knee replacement94100Varicose veins stripping & ligation3336Total	64	94	Tonsillectomy		
213173Total knee replacement94100Varicose veins stripping & ligation3336Total	148	108	Total hip replacement		
94     100     Varicose veins stripping & ligation       33     36     Total	213	173	Total knee replacement		
33 36 Total	94	100	Varicose veins stripping & ligation		
	33	36	Total		

#### Waiting times are measured in days

Actual waiting times in 2010–11

### horter waiting time Longer waiting time

Reform Council



#### Change in waiting at the 90th percentile



Shorter waiting time Longer waiting time





# Appendix B. Cancer incidence rates and variability bands

#### What do variability bands tell us about cancer incidence rates?

In determining whether there are statistically significant differences between two different rates of cancer, we examine the variability bands that accompany the rates. If two variability bands do not overlap, then there is a statistically significant difference between the two underlying rates.

Figure B.1 focuses on the variability bands for bowel cancer incidence across remoteness areas for the three years from 2006 to 2008. At the right of the figure are the variability bands for bowel cancer in very remote areas. The variability bands have gone up in each year, though each still overlaps with the other two—there is no significant difference in bowel cancer rates in very remote areas over the three years.

Looking at the variability bands for 2006 (shaded in grey), the incidence rate in very remote areas was significantly lower than in major cities, inner regional areas, and outer regional areas—the top of the band for very remote areas does not cross the bottom of the equivalent (grey) bands for these other three areas.

But, in 2008, the variability band for remote areas clearly crossed the variability bands for all other areas—so, in 2008, bowel cancer incidence was no longer significantly lower in very remote areas than in major cities, inner regional areas, and outer regional areas. Future data may confirm a possible increase in bowel cancer incidence in very remote areas.





#### Notes:

1. See statistical supplement, tables NHA.4.3, 4.6 and 4.9 for data, technical notes and sources.

Appendix B. Cancer incidence rates and variability bands Healthcare 2010–11: Comparing performance across Australia Figure B.2 shows the variability bands that accompany the incidence rates of female breast cancer across areas of remoteness for the three years from 2006 to 2008.

As with bowel cancer incidence, it is noticeable that in 2006, rates of female breast cancer were significantly lower in very remote areas than in major cites, inner regional areas, or outer regional areas. In 2008, this significant difference had evaporated. Future data will be necessary to examine whether there are significant changes occurring to the female breast cancer rate in very remote areas.

Figure B.2 Variability bands for female breast cancer incidence, by remoteness, 2006, to 2008



Notes:

1. See statistical supplement, tables NHA.4.3, 4.6 and 4.9 for data, technical notes and sources.

#### The meaning of 'statistical significance'

In chapter 1, we discuss the meaning of 'statistical significance', which is further explained in appendix C.

As with all statistical comparisons, care should be exercised in interpreting the comparison of variability bands for rates. If two rates are statistically significantly different from each other, this means that the difference is unlikely to have arisen by chance. Judgment should, however, be exercised in deciding whether or not the difference is of any practical significance.

We will continue to analyse these data in future years to see if longer terms patterns emerge.

It is also worth noting that the concept of statistical significance usually relates to data collected through surveys. However, cancer incidence rates are derived from administrative data collected by cancer registries, and not by survey. Special methods have been developed by data experts to apply this concept to cancer incidence rates, including by the application of 'variability bands'.

# Appendix C. Roles and responsibilities of governments

#### National Healthcare Agreement

The National Healthcare Agreement was agreed by COAG in 2008. It identifies the respective roles and responsibilities of the Commonwealth and State and Territory governments in achieving the agreement's overarching objective to 'improve the health outcomes for all Australians and the sustainability of the health system'.

COAG amended governments' roles and responsibilities under the National Healthcare Agreement in July 2011.

- The Commonwealth now has full funding responsibility for aged care services (previously jointly funded by the Commonwealth and States and Territories)
- The Commonwealth now has full funding responsibility for the Home and Community Care program (previously jointly funded and provided by the States and Territories)
- States and Territories now funds disability services in accordance with the National Disability Agreement and National Health Reform Agreement.

These revised roles and responsibilities do not apply to Victoria and Western Australia—they will continue to share funding responsibility and provide services for basic community care, aged care and disability services.

Box C.1 sets out a summary of governments' funding responsibilities under the 2011 National Healthcare Agreement. Box C.2 sets out a summary of governments' other responsibilities.

#### Box C.1 Governments' funding responsibilities under the 2011 National Healthcare Agreement

#### Joint Commonwealth and State and Territory funding responsibility

The Commonwealth and States and Territories will jointly fund:

- public hospitals
- public health activities
- mental health services
- sub-acute care
- Aboriginal and Torres Strait Islander health services
- health research
- health workforce training
- emergency responses
- blood and blood products.

Appendix C. Roles and responsibilities of governments Healthcare 2010–11: Comparing performance across Australia

#### The Commonwealth's funding responsibility

In addition to its joint funding responsibilities, the Commonwealth funds:

- access to private medical care
- access to pharmaceuticals
- access to private health insurance
- education of health professionals
- health services for eligible veterans
- residential, community and flexible aged care services (funding for these services is in accordance with the National Health Reform Agreement)
- purchase of vaccines under national immunisation arrangements
- community-controlled Aboriginal and Torres Strait Islander primary healthcare.

#### State and Territory funding responsibilities

In addition to joint funding responsibilities, States and Territories will fund:

- community health
- capital infrastructure and service planning
- ambulance services
- food safety and regulation
- environmental health
- disability services (in accordance with the National Disability Agreement and the National Health Reform Agreement).

Source: (COAG 2011c)

# Box C.2 Governments' other roles and responsibilities under the National Healthcare Agreement

#### Other joint Commonwealth and State and Territory responsibilities

The Commonwealth and States and Territories will jointly:

- facilitate and implement system reform and regulation where improvements to patient care, safety or patient outcomes can be demonstrated
- collaborate in developing national policy directions and strategic priorities
- regulate health professions and regulate the quality and supply of the health workforce
- ensure all pharmaceuticals are delivered consistent with the National Medicines Policy
- respond effectively to public health emergencies
- co-operate in quality assurance and regulatory activities
- continue to improve health service safety and quality



- collaborate in national food regulatory arrangements
- share and report health system information to ensure continuity of care for patients
- co-operate through agreed governance arrangements for information management and information technology
- respond positively to any reasonable request for data or information about the utilisation of health services, or the costs of provision of health services, to each other in a timely way.

#### Other Commonwealth responsibilities

In addition to the Commonwealth's funding responsibilities, the Commonwealth will:

- seek to ensure equitable and timely access to affordable primary care services, predominantly through general practice
- assist in reducing pressure on hospital emergency departments through the provision of funding for primary healthcare services
- seek to ensure equitable and timely access to affordable specialist services
- provide reliable, timely and affordable access to safe, cost-effective and high quality medicines
- ensure that there are sufficient, affordable aged care services so that people needing this care can access it when required, regardless of geographic location
- regulate the private health insurance industry and subsidise access to private health insurance
- facilitate access by Aboriginal and Torres Strait Islander people to mainstream health services to help close the health equity gap
- provide data to the States and Territories on a quarterly basis concerning private health insurance coverage levels, the Medicare Benefits Schedule and the Pharmaceutical Benefits Scheme by specified geographic area
- continue to provide data for agreed national minimum data sets
- purchase vaccines for delivery by States and Territories through national immunisation arrangements
- provide vocational training programs for general practitioners.

#### Other State and Territory responsibilities

The States and Territories also:

- provide public patients with access to all services provided to private patients in public hospitals
- provide service planning, capital works and adequate infrastructure for public hospitals and community health facilities to meet future needs
- provide and fund patient assistance travel schemes and ensure that public patients are aware of how to access the scheme



- ensure that eligible people who have elected to be treated as private patients have done so on the basis of informed financial consent
- provide and fund pharmaceuticals for public and private inpatients and for public non- admitted patients in public hospitals (except where Pharmaceutical Reform Arrangements are in place)
- maintain a Public Patients Hospital Charter and an independent complaints body and ensure that patients are aware of how to access these provisions
- provide public health, community health, public dental, deliver vaccines purchased by the Commonwealth under the national immunisation arrangements and health promotion programs
- continue to provide agreed national minimum data sets
- provide clinical training programs for undergraduates and specialists.

```
Source: (COAG 2011c)
```

#### National Health Reform Agreement

On 13 February 2011, COAG agreed to a Heads of Agreement. This agreement outlined governments' in-principle commitment to a range of health reform initiatives, including new financial arrangements for public hospitals.

On 2 August 2011, COAG announced the National Health Reform Agreement. This agreement gave effect to, and superseded the Heads of Agreement. The National Health Reform Agreement has the same objective as the National Healthcare Agreement. It also builds on and complements the policy and reform directions, progress measures, and outputs outlined in the National Healthcare Agreement.

Key elements of the National Health Reform Agreement include:

- new funding arrangements for public hospitals—from 1 July 2012, funding will be provided on the basis of activity through activity-based funding, with an independent body to set the 'efficient' price of services
  - from 1 July 2014, the Commonwealth will fund 45% of efficient growth costs, increasing to 50% from 1 July 2017
  - the Commonwealth is to provide at least an additional \$16.4 billion in growth funding between 2014–15.
- establishing Local Health Networks (LHNs)—new administrative structures for public hospitals and some health services
- establishing Medicare Locals—new independent regional organisations to coordinate access to local primary healthcare services with similar boundaries to LHNs.

The National Health Reform Agreement also identifies the respective roles and responsibilities of the Commonwealth and State and Territory governments (see Box C.3)



#### Box C.3 Governments' roles and responsibilities under the National Health Reform Agreement

#### Joint Commonwealth and State and Territory responsibilities

The Commonwealth and States and Territories will be jointly responsible for:

- funding public hospital services<sup>1</sup>, using activity based funding where practicable and block funding in other cases
- funding growth in public hospital services and the increasing cost of public hospital services
- establishing and maintaining nationally consistent standards for healthcare and reporting to the community on the performance of health services
- giving effect to the new Commonwealth-State governance arrangements including establishing relevant national bodies
- collecting and providing data to support the objectives of comparability and transparency, and to ensure that data is shared between relevant participants in national health care arrangements to promote better health outcomes.

#### The Commonwealth responsibilities

The Commonwealth will be responsible for:

- system management, policy and funding for GP and primary health care services
- establishing Medicare Locals to promote coordinated GP and primary health care service delivery
- working with each State on system-wide policy and state-wide planning for GP and primary health care
- promoting equitable and timely access to GP and primary health care services
- planning, funding, policy, management and delivery of the national aged care system (noting that there will be different arrangements in Western Australia and Victoria under the Agreement)

#### State and Territory responsibilities

States will be responsible for:

- system management of public hospitals, including:
  - establishing the legislative basis and governance arrangements of public hospital services, including the establishment of LHNs
  - system-wide public hospital service planning and performance
  - purchasing public hospital services and monitoring of delivery of services purchased
  - planning, funding and delivering capital
  - planning, funding (with the Commonwealth) and delivering teaching, training and research



- managing LHN performance
- state-wide public hospital industrial relations functions, including negotiation of enterprise bargaining agreements and establishment of remuneration and employment terms and conditions to be adopted by LHNs
- taking a lead role in managing public health
- sole management of the relationship with LHNs to ensure a single point of accountability in each State for public hospital performance, performance management and planning.

Notes:

1. Public hospital services include: all admitted services, including hospital in the home programs; all emergency department services; and other outpatient, mental health, subacute services and other services that could reasonably be considered a public hospital service in accordance with Appendix A of the national Health Reform Agreement.

Source: (COAG 2011b)

#### Expenditure on healthcare services

All levels of government in Australia fund, deliver and regulate health services, with most of the activity performed by the Commonwealth, State and Territory governments. Local governments are generally involved in environmental control and a range of community-based and home care services, although the nature of their involvement varies across jurisdictions. The non-government sector also plays a significant role in the health system, delivering GP and specialist medical and surgical services, dental services, a range of other allied health services (such as optometry and physiotherapy) and private hospitals.

Total expenditure (recurrent and capital) on health care services in Australia was estimated to be \$121.4 billion in 2009–10. This total was estimated to account for 9.4% of gross domestic product in 2009–10—an increase of 1.2 percentage points from the 8.2% of GDP in 2000–01 (SCRGSP 2012, p. E.4). This shows that health expenditure grew faster than the economy as a whole over the decade to 2009–10. Figure C.1 displays the proportional contribution of funding by major sources.

The 2012 Report on Government Services details expenditure data for the healthcare sector (see <u>http://www.pc.gov.au/gsp/reports/rogs/2012</u>).



#### Figure C.1 Recurrent health expenditure by source, 2009–10 (\$ billion)

Notes:

1. See publication for notes. Source: (SCRGSP 2012, Table EA.4)

#### Expenditure on aged care services

Up until 30 June 2011, the Commonwealth and State and Territory governments jointly funded aged care services. On 1 July 2011, the Commonwealth took over funding responsibility for aged care services under the 2011 National Healthcare Agreement. The Commonwealth will also assume operational responsibility for these services from 1 July 2012 (COAG 2011b, cl. F7(a))

Recurrent expenditure on aged care services was \$12.2 billion in 2010–11. Table C.1 sets out government expenditure on aged care services in each State and Territory, by program type. Government expenditure includes funding from both the Commonwealth and States and Territories.

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Other	AUST
Assessment and Information Services	28.7	18.3	15.7	9.5	6.3	2.6	1.0	1.3	5.8	89.1
Residential Care Services	2737.1	2118.8	1491.5	669.4	801.3	211.4	80.9	25.1	7.8	8143.3
Community Care Services	1071.3	817.3	706.2	339.9	286.4	101.4	54.4	33.6	12.9	3423.4
Services provided in mixed delivery settings	135.8	102.6	83.2	54.2	66.8	14.5	4.0	10.1	46.2	517.4
Total	3972.9	3057.0	2296.6	1073.1	1160.8	329.9	140.3	70.2	72.6	12 173.3

#### Table C.1 Government expenditure on aged care services, 2010–11 (\$ million)

Notes:

1. Table does not include all State and Territory government expenditure (for example, the experimental estimates of expenditure on non-HACC post acute packages of care and Commonwealth, State or Territory government capital expenditure are excluded).

Source: (SCRGSP 2012, Table 13A.6)

# Appendix D. Contextual factors

Each year we highlight the key contextual differences between States and Territories that are relevant to understanding performance information. These contextual factors are relevant when considering relative performance among States and Territories, and within each State and Territory.

Table D.1 outlines contextual differences in population and Table D.2 outlines contextual differences in socio-economic status.

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Proportion of all persons (%)									
In each State and Territory (2010)	32.4	24.8	20.2	10.3	7.3	2.3	1.6	1.0	100.0
In remote and very remote areas (2010)	0.5	0.1	3.1	6.5	3.7	2.1	na	44.0	2.3
	Propo	rtion o	f Indige	nous p	ersons	(%)			
In each State and Territory (2010)	2.3	0.7	3.6	3.3	1.8	4.0	1.3	29.9	2.5
In remote and very remote areas (2006)	5.2	np	22.2	42.6	18.7	3.6	na	79.8	24.6
Indigenous population ('000) (2011)	168.8	37.6	164.9	77.7	31.0	20.6	4.8	69.9	575.3
		Ot	her fac	t <b>ors (%</b> )					
Proportion of population aged less than 5 years (2010)	6.4	6.4	7.0	6.7	6.0	6.6	6.7	8.1	6.5
Proportion of population aged 65 years or older (2010)	14.2	13.8	12.7	12.2	15.8	15.8	10.5	5.7	13.6
Proportion of population aged less than 65 years with a disability (2009)	13.2	12.5	12.9	13.1	14.5	16.6	12.5	13.2	13.1

#### Table D.1 Key contextual factors

Notes:

1. Data relate to multiple years and report the most timely data available.

2. See statistical supplement, tables AA.1, AA.10, AA.15, AA.16, AA.14 and AA.8 for data and sources.

#### Socio-economic status—the Socio-Economic Indexes for Areas (SEIFA) Index of Relative Socio-economic Disadvantage (IRSD)

The Socio-Economic Indexes for Areas (SEIFA) Index of Relative Socio-economic Disadvantage (IRSD) is a product developed by the ABS based on the five-yearly Census of Population and Housing. The SEIFA IRSD describes the relative socio-economic status of Australian communities. SEIFA IRSD uses a selection of weighted variables to determine the level of disadvantage of a geographic area. Variables in the index include income, educational qualifications, unemployment, housing, disability, household resources and Indigenous population.

Across National Agreement reports, the council reports SEIFA data that has been sorted by two different SEIFA methodologies. For all of its reports except the National Healthcare Agreement and the National Affordable Housing Agreement, the council uses SEIFA data that has been sorted by a method used by the ABS.

However, the majority of data reported under the National Healthcare Agreement are sourced from the AIHW, which applies a different method to sorting SEIFA. While the differences between each method are explained further in Appendix E, essentially the ABS method has an equal number of collection districts in each quintile, while the AIHW method, which is based on statistical local areas, has an equal number of people in each quintile.

To ensure consistency between how data relating to socio-economic status are reported in this report and the presentation of socio-economic status as a contextual factor, the council uses the SEIFA method that best matches the majority of data used for the National Healthcare Agreement—that is, the method used by the AIHW.

Table D.2 shows the proportion of the population in the most disadvantaged quintile in each jurisdiction according to each of the AIHW and ABS SEIFA methodologies.

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Populati	on in mo	ost disa	dvantag	jed soci	o-econo	omic qu	intile (%	)	
AIHW SEIFA method (2010)	21.5	15.8	21.6	5.8	31.3	58.1	0.2	39.9	19.9
ABS SEIFA method (2006)	20.9	16.2	17.2	13.7	24.3	31.7	1.8	29.7	18.6

#### Table D.2 Key contextual factor—socio-economic disadvantage

Notes:

1. See statistical supplement, tables AA.23 and AA.26 for data.

Source: AIHW (unpublished); ABS (2008) 2006 Socio-Economic Indexes for Areas (SEIFA).

# Appendix E. Treatment of data issues

This section provides an overview of key data issues which arise in reporting performance data for the National Healthcare Agreement. Detailed information on each performance indicator and data quality statements are provided in the statistical supplement to this report.

#### Data collections

Multiple data collections are used to provide the performance data under the National Healthcare Agreement. The main data sources for the comparative analysis and their frequency of collection are shown in Table E.1.

Source	Туре	Frequency
AIHW National Notifiable Diseases Surveillance System	Administrative	Ongoing
AIHW Australian Cancer Database	Administrative	Ongoing
ABS National Health Survey	Survey	Three-yearly
ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS)	Survey	Six-yearly
Medicare Benefits Schedule	Administrative	Ongoing
ABS Patient Experience Survey	Survey	Annual
ABS Causes of Death	Administrative	Annual
Department of Veterans Affairs health data	Administrative	Ongoing
AIHW National Perinatal Data Collection	Administrative	Ongoing
AIHW National Elective Surgery Waiting Times Data Collection	Administrative	Ongoing
AIHW National Non-admitted Patient Emergency Department Care Database	Administrative	Ongoing
AIHW Admitted Patient Care National Minimum Data Set	Administrative	Ongoing
AIHW National Hospital Morbidity Database	Administrative	Ongoing
DoHA Aged Care data warehouse	Administrative	Ongoing
ABS Census of Population and Housing	Census	Five-yearly
ABS Estimated Resident Population	Administrative	Ongoing
ABS Estimated and Projected Indigenous Resident Population	Census and administrative	Annual

#### Table E.1 Sources of data and frequency of collection



There are a number of issues associated with using the data for comparing the performance of jurisdictions, both over time and at a point in time, which vary according to data source. Information on particular data sources is included in the data quality statements.

#### Statistical error

Where possible, the council reports statistical error in the form of confidence intervals and relative standard errors.

#### **Confidence intervals**

Confidence intervals are used to describe the probability that the true value falls within a certain range of survey estimates. The confidence interval is reported at the 95% level. This means there is a 95% chance the true value of the data item falls within plus or minus 1.96 times the standard error of the estimate. For example, if the estimate is 80 and the standard error is one, the confidence interval is  $\pm 1.96$ —meaning there is a 95% chance the true value lies between 78.04 and 81.96.

Confidence intervals can be graphically represented on charts. Our charts include confidence intervals where possible.

#### **Relative standard errors**

Relative standard error is the ratio of the standard error to the size of the estimate. This means that the size of errors in a sample survey can be compared within and between surveys, particularly for small States and Territories and small disaggregations such as Indigenous status. The council's treatment of relative standard errors is consistent with the ABS standard.

- Generally, data with a relative standard error of less than 25% are considered to be of acceptable quality.
- Data with a relative standard error between 25% and 50% should be treated with caution.
- Data with a relative standard error greater than 50% are considered too unreliable for general use.

#### Administrative data collections

Administrative data collections are not surveys. Sample survey data are based on a subset of the population. In contrast, administrative data are assumed to be a full enumeration of the population. All data are subject to error—for administrative data this is a result of errors in the reporting, recording or processing of the data.

Unlike surveys, where most error is as a result of the sample not completely representing the population, error in administrative collections reflects non-sampling or measurement error.

Confidence intervals are presented for some administrative data collections, such as cancer incidence. See below for the council's approach to analysing these confidence intervals.

#### Significance testing

Where possible, analyses of differences have been tested for statistical significance. This includes comparing data for a State/Territory with Australia and comparing data for a State/Territory over time.

When confidence intervals do not overlap, the difference between data points is always statistically significant. In general, when confidence intervals do overlap, there is less likely to be a statistically significant difference between data points. However, this should be confirmed by performing a statistical test.

The COAG Reform Council contracts the ABS to conduct two types of statistical testing as listed below.

- When conducting significance testing for change over time, a standard significance test based on independent samples is applied.
- When conducting significance testing within the one year between a jurisdiction and the national average, an alternative significance test is applied based on dependent samples. These dependent samples factor in the effect of the co-variance between the estimates of the jurisdiction and Australia. Large jurisdictions, such as NSW, have a greater contribution to the national average—accounting for this in the significance test improves the quality of the testing.

#### Administrative collections

Confidence intervals (or variability bands) associated with administrative data collections are not subject to the same statistical assumptions as confidence intervals associated with sample survey data. For this reason it is inappropriate to apply the same type of statistical testing to administrative data with confidence intervals as to sample survey data.

In its 2010–11 performance report, the council has adopted the confidence interval overlap approach for administrative data with variability bands, such as cancer incidence rates. Where no overlap exists, differences are reported as being statistically significant. The council will continue to take expert advice, including from the Australian Institute of Health and Welfare, about whether more sophisticated methods should be adopted for future reports, particularly to report on change over time.

#### What is a 'significant difference' or a 'significant change'?

In this report, the word 'significant' has a specific statistical meaning. This meaning applies to data that are collected using surveys. Survey data contain a certain degree of error, because a survey will only include a sample of a population rather than the total population. Surveying just a sample of a population introduces the risk that results might not accurately reflect the population as a whole, but simply reflect who is included in the sample.

Data are collected by governments as a by-product of many types of administration including the registration of deaths. These data are not a sample of people who died but should be a count of all people who died. However, this may not always be true. There may also be other errors



such as poor or no information recorded. Because of these potential errors the concept of 'significant' is also relevant. It only applies to some data such as deaths.

In statistics, 'significant' differences are those which are 'real' and unlikely to have occurred by chance. It does not necessarily mean 'significant' in the everyday sense of the term. In some cases, apparently small differences between numbers can be statistically 'significant'. In other cases, we might not be able to describe two numbers that look very different as being 'significantly different'.

Testing for statistical significance is done for the council by the Australian Bureau of Statistics.

Descriptions of progress that have not been tested for statistical significance should be treated with caution.

#### Small numbers

Some data collections in this report are based on small numbers. For sample surveys, the smaller the estimate, the higher the relative standard error. This particularly affects small States and Territories and small populations, such as Indigenous Australians.

#### Estimates of the Indigenous population

For each indicator for which Indigenous status disaggregations are reported it is important to note:

- the proportion of Indigenous people who are missed from the data collections, by jurisdiction
- the accuracy with which Indigenous status is identified in data collections, by jurisdiction
- in relation to survey data collections, whether the sample is representative of the Indigenous population and/or of sufficient size to enable reliable reporting by Indigenous status and by jurisdiction.

#### Census data and Indigenous population estimates

The five-yearly Census is the basis of much detailed information such as educational attainment and housing costs and can be used as both numerator and denominator.

The Census is also the basis of population estimates for subsequent surveys and administrative collections. However, not everyone is counted in the Census so adjusted population figures ('estimated resident population') are produced for both Indigenous and all Australians for use as base populations. The estimated rate of those Indigenous persons who were missed in the 1996 Census (the undercount) was highest in Western Australian and the Northern Territory (16.6% and 16.0% respectively) compared to the national rate of 11.5%. The estimates method takes undercount into consideration.

Between Census years the ABS adjusts these estimates and produces estimated resident population for all persons quarterly and an annual projection of the Indigenous population.



Population estimates are based on incorporating new demographic data (looking backward) each year whereas historical data are used to project a population (looking forward in time). Projecting a population has an element of uncertainty as we cannot know for sure what fertility or mortality rates will apply in the future.

The accuracy of the Indigenous population projections will only be known when results are compared to the next Census. New 2011 Census-based estimates for Indigenous people will not be released until 2013. Until that point, the council's reports will use projections based on the 2006 Census.

This report uses the appropriate estimate or projection according to the year of the data.

#### Administrative data collections

In administrative data such as mortality data, hospital records and health registers, the number of Indigenous people identified can be lower than the actual number in the collection. Indigenous Australians are not always asked questions about their identity, there are situations where they may choose not to identify and there are inconsistencies in the use of the ABS' standard Indigenous status question. The quality or extent to which Indigenous Australians are identified correctly can vary by data collection, across States and Territories and over time.

#### Geographic location

Geographical areas are classified as major cities, inner regional, outer regional, remote or very remote according to the ABS Australian Standard Geographic Classification Remoteness Areas system. Remoteness areas for Australia are shown in Figure E.1.



#### Figure E.1 Remoteness areas of Australia

Source: ABS (2008) Australian Social Trends.

#### Age standardisation

Age standardisation is a method of removing the influence of age when comparing populations with different age structures: for example, Indigenous and non-Indigenous populations. This can be useful in analysis because the outcomes for some indicators vary strongly with age.

#### Other data issues

This third year report to COAG is for the reporting period from 1 July 2010 to 30 June 2011. The council has used 2010–11 data where available.

Data from previous reporting periods which have not been revised are contained in the statistical supplement (previously known as 'volume 2') of the relevant years' reports. Data from previous reporting periods which have been revised are included in the statistical supplement of this report.

In this report, some data are presented according to the State or Territory that delivered the service, so may include residents of another jurisdiction who received services 'across the border'. This affects the ACT more than other jurisdictions as substantial numbers of residents in the surrounding areas of NSW access services in the ACT.

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