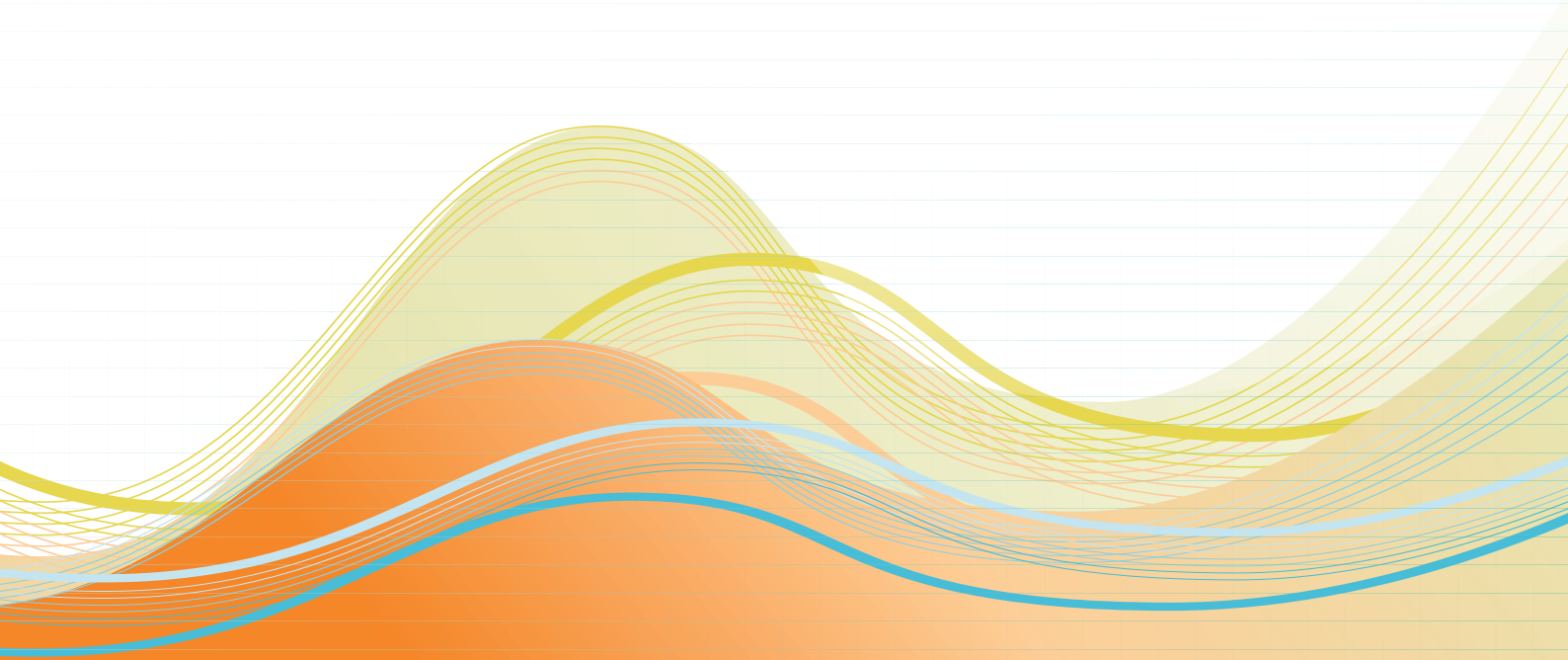
Bureau of Health Information

Healthcare in Focus 2011

How well does NSW perform?

An international comparison

Annual performance report: November 2011



BUREAU OF HEALTH INFORMATION

PO Box 1770
Chatswood NSW 2057
Australia
Telephone: +61 2 8644 2100
www.bhi.nsw.gov.au

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Chief Executive's perspective

Healthcare in Focus 2011 steps back from local issues and travels across international borders to compare and benchmark performance of the healthcare system in NSW. It looks through the eyes of patients to acknowledge achievements and highlight opportunities to improve.

People will hold different perspectives when reading *Healthcare in Focus 2011* so let me offer my view on lessons which emerge from this report when considered in tandem with *Healthcare in Focus 2010*.

In 2010 and 2011 *Healthcare in Focus* highlights that NSW is an international leader in improving health. Deaths from heart disease, stroke and cancer have dropped dramatically over the past decade. Both reports conclude that NSW gets value for its health dollar; no other jurisdiction compared has lower spending and better health.

While no public patient in NSW incurs out-of-pocket costs for hospitalisation, four in 10 sicker adults said they and their family spent more than $1,000 in the past year for medical treatments and services that were not covered by the government or private insurance. This proportion is more than 10 times higher than in the United Kingdom or Sweden and three to four times higher than other European countries.

In 2011 almost all NSW sicker adults (99%) had a regular doctor or GP practice; NSW does comparatively well monitoring health (blood pressure and cholesterol screening) and administering influenza vaccine to older adults.

Yet only half of NSW sicker adults reported that they had a ***'medical home'*** that offers accessible, responsive and coordinated primary health care. Sicker adults in the United Kingdom, Switzerland and New Zealand were much more likely to have a medical home.

NSW sicker adults who don't have access to a ***'medical home'*** were more likely to make an unnecessary visit to an emergency department (ED) when they needed care in the evening or on the weekend.

Another benefit of providing the right care in the right place is the opportunity to reduce avoidable visits to hospitals in NSW. In 2011, 24% of NSW adults said they were hospitalised in the past two years; this is much higher than in Canada (14%) and the United Kingdom (15%). Among NSW sicker adults with a chronic health condition, 15% said that their condition resulted in hospitalisation or a visit to the ED – twice as many as in France.

Importantly, the report does not align directly with performance priorities identified for NSW. It does, however, include information that might inform future priorities.

It does not identify whether the public or private sector is responsible for achievements or improvements because together we hold responsibility to keep people healthy and ensure patients have affordable access to the right care in the right place.

Dr Diane Watson
Chief Executive

Summary

Communities want healthcare systems that provide high-quality and safe care in a sustainable way

People want long, healthy lives.

Communities want healthcare systems that provide high-quality and safe care in a sustainable way.

The goal of all healthcare systems is to improve the health of the population they serve in an efficient way. Reaching this goal requires both an understanding of the factors that contribute to high performance; and fair, balanced and accurate reporting of the extent to which those factors feature in the healthcare system.

In assessing system performance we ask:
Are healthcare services effective, appropriate, safe and delivered on the basis of clinical need? To what degree are they responsive to patients? Can people access care when and where they need it? Do services have enough resources and how do costs compare?

Healthcare in Focus 2011 takes a comprehensive look at how the health system in NSW compares with Australia as a whole and with 10 other countries. To do this, the Bureau mainly used data from the *2011 Commonwealth Fund International Health Policy Survey of Sicker Adults in Eleven Countries* and the *Organisation for Economic Co-operation and Development (OECD)*.

In making international comparisons, the report covers performance in both public and private sectors; in the hospital system and in primary care.

Healthcare in Focus 2011, like the 2010 edition, deliberately looks at the big picture of patient outcomes and experiences, not distinguishing state, federal or private sector responsibilities.

The report includes almost 90 performance measures that were selected on the basis of comparable information from overseas. As a result, the report does not align directly with state or national performance priorities. Performance is summarised in each chapter, listing those countries that statistical analyses indicate truly differ from NSW.†

'Sicker adults' refers to people who are likely to have had significant direct experience of the healthcare system in the recent past. It includes people who met at least one of the following criteria:

- Described their overall health as fair or poor
- Received medical care in the previous year for a serious or chronic illness, injury or disability
- Had been hospitalised in the previous two years (for any reason other than childbirth)
- Had surgery in previous two years.

(†) Statistical analyses show that the observed differences were ***not*** due to chance or sampling limitations. See *Technical Supplement: Healthcare in Focus 2011* for details.

So what did we find?

Value, perceived need for reform, health determinants and health status

NSW does well in achieving health per dollar spent on healthcare. No country included in the report spends less than NSW and has better health.

When asked about their overall view of their country's healthcare system, almost three in 10 NSW sicker adults (28%) indicated that the system works well and only minor change is required. Nearly two in 10 (18%) said the system requires a complete rebuild. Views in NSW were less positive than in six comparator countries.

People are living longer, and death rates from common cancers and circulatory diseases fell across NSW between 1999 and 2009.

In NSW, 16% of adults described their health as fair or poor. Almost a quarter of adults (24%) report being hospitalised in the previous two years - a much higher proportion than in Canada (14%) and the United Kingdom (15%). One-third of adults (33%) say they have received medical care in the past year for a serious or chronic illness, injury or disability. The NSW health system will increasingly need to design care for people with long-term or chronic health conditions.

Effectiveness

The most recently available data show that premature deaths from circulatory disease continue to fall. Most adults with circulatory disease report receiving appropriate monitoring tests for cholesterol and blood pressure.

For cancer, the rate of premature death (measured by potential years of life lost before age 70) fell between 1999 and 2009. Five-year survival for major cancers has increased and compares favourably on the international stage.

There are however, some areas where current patterns of care may be of concern. Caesarean section rates in NSW (almost 30% of live births) are very high by international standards and continue to increase.

In NSW, hospitalisation rates for chronic conditions such as diabetes and respiratory disease are high relative to most countries included in the report.

The number of people with end-stage renal disease, a long-term complication of poorly controlled diabetes, is increasing in NSW. A number of other countries have higher rates of end-stage renal disease and also report marked increases in prevalence. In 2010, the Bureau reported that NSW adults who have diabetes are more likely than adults in comparable countries to have other complications such as lower extremity amputation.

Access

Almost all NSW sicker adults (99%) have a regular doctor or GP practice, and six in 10 (63%) report getting a same-day or next-day primary care appointment. Yet, only 40% who needed care in the evening, on weekends or holidays said it was very easy or easy to access medical care without going to the emergency department (ED). NSW was outperformed by four countries for very easy access.

Among NSW sicker adults who attended the ED, 35% reported that their last visit was for a condition they thought could have been treated by their regular GP if he or she had been available.

Of those who needed to see a specialist, 60% reported waits for an appointment of less than four weeks, a higher proportion than in seven countries. About one in five (19%) waited longer than eight weeks.

While no public patient in NSW incurs out-of-pocket costs for hospitalisation, 42% of sicker adults reported they and their family had out-of-pocket costs of more than $1,000 for treatments or services not covered by Medicare or insurance – a higher proportion than nine countries surveyed. Only the United States had a higher percentage of sicker adults who reported cost as a barrier to accessing doctors, medicines, tests and treatments.

Safety

In NSW, 21% of sicker adults thought a medical mistake, medication error or incorrect lab result had occurred in their care. The United Kingdom (8%), Switzerland (9%) and France (13%) outperformed NSW.

Of NSW sicker adults who had surgery or were hospitalised in the past two years, one in 10 reported developing an infection during or shortly after their hospital stay. Only the United States outperformed NSW.

Medication reviews can help prevent medication-related errors. More than six in 10 NSW sicker adults (65%) had a medication review in the past year – a higher proportion than four countries but lower than the United Kingdom and Switzerland.

High-quality healthcare requires clear and efficient communication between healthcare professionals, their patients and carers. Around one in six NSW sicker adults (15%) reported occasions when healthcare professionals had failed to share with each other important information about their medical history or treatment, compared with 7% of British and 11% of Swiss sicker adults.

Person centredness

Person centred healthcare systems actively engage patients, families, carers and communities in efforts to achieve high performance.

In NSW, most sicker adults rated the quality of their medical care as excellent (30%) or very good (38%). Only New Zealand had a significantly higher proportion of excellent ratings.

Hospitalisations for chronic conditions can be minimised with effective monitoring and treatment. Among NSW sicker adults with a chronic health condition, 15% said their condition resulted in hospitalisation or a visit to the ED in the previous year; higher than three countries and twice as many as in France.

Most sicker adults said their GP always explains things in a way that is easy to understand (71%); knows important information about their medical history (70%); and spends enough time with them (69%). While a similar proportion (70%) said their GP seemed informed about the care they received following hospitalisation, NSW was outperformed by five countries on this measure.

Of sicker adults who received care from multiple doctors, one-third (31%) said someone at their regular GP practice always helped coordinate their care. NSW was outperformed by six countries.

Just over half of NSW sicker adults (52%) had a '*medical home*'[†], fewer than in three comparator countries. Statistical analyses show that the limited prevalence of medical home in NSW was primarily a result of coordination issues.

(†) Sicker adults have a *'medical home'* if: they have a regular doctor or GP practice; ***and*** their regular doctor always / often knows about their medical history; ***and*** they are able to get a same-day / next-day appointment ***or*** the GP practice always / often gives a same-day response to telephoned medical questions; ***and*** one person is responsible for all care they receive from other doctors for a chronic condition ***or*** the GP practice always / often helps coordinate care received from other doctors or places.

Compared with sicker adults without a medical home, those with a medical home were more likely to report they could get needed care in the evening, on a weekend or on a holiday without going to the ED; and more likely to report elements needed for strong patient-doctor communication and coordinated care.

Equity

Although the overall health and wellbeing of NSW people is high compared with other countries, there are considerable differences across groups within the state.

Among NSW sicker adults with below-average income, four in 10 (44%) said their health keeps them from working full time or limits their ability to carry out daily activities. For those with above-average income, 19% reported such limitations.

Two in 10 NSW sicker adults (23%) with below-average income said a complete rebuild of the country's healthcare system was necessary, compared with 10% of those on above-average income.

There were also differences in the experiences and responses of urban and rural sicker adults. For example, on the question of whether their most recent visit to the ED could have been avoided by the availability of their regular doctor, 26% of NSW sicker adults in urban areas answered yes, compared with 46% in rural areas. This 20 percentage point difference in NSW – termed the *'rurality-associated gap'* – was high relative to large, comparable countries.

When asked about the ability to see a doctor or nurse on the same or next day when sick, the rurality-associated gap was 21 percentage points in NSW – a larger gap than in comparable countries.

Aboriginal people in NSW have higher rates of potentially avoidable and premature deaths than non-Aboriginal people.

Resources

In NSW in 2008–09, a total of $4,933 per person was spent on healthcare (public and private). After accounting for differences in currency, this is at least 10% lower than spending in six comparator countries. A significant proportion of the state's resources are spent on healthcare. In 2008–09, total public and private health expenditure was $35 billion – almost 9% of gross state product.

Overall then, how does NSW perform?

Healthcare in Focus 2011 highlights how well NSW does in achieving value for its healthcare dollar. The health of NSW people ranks highly compared with other countries and total health investment is the same or lower than other countries' spending. The state has made significant health gains in recent years. At the same time, the Bureau's reports have identified where NSW can do better and points to countries from which it can learn.

Learning from successes and focusing attention on areas for improvement are critically important in the quest to deliver high-quality, safe healthcare services to the people of NSW when they need them.

Setting the scene

Quality of care in sickness and in health

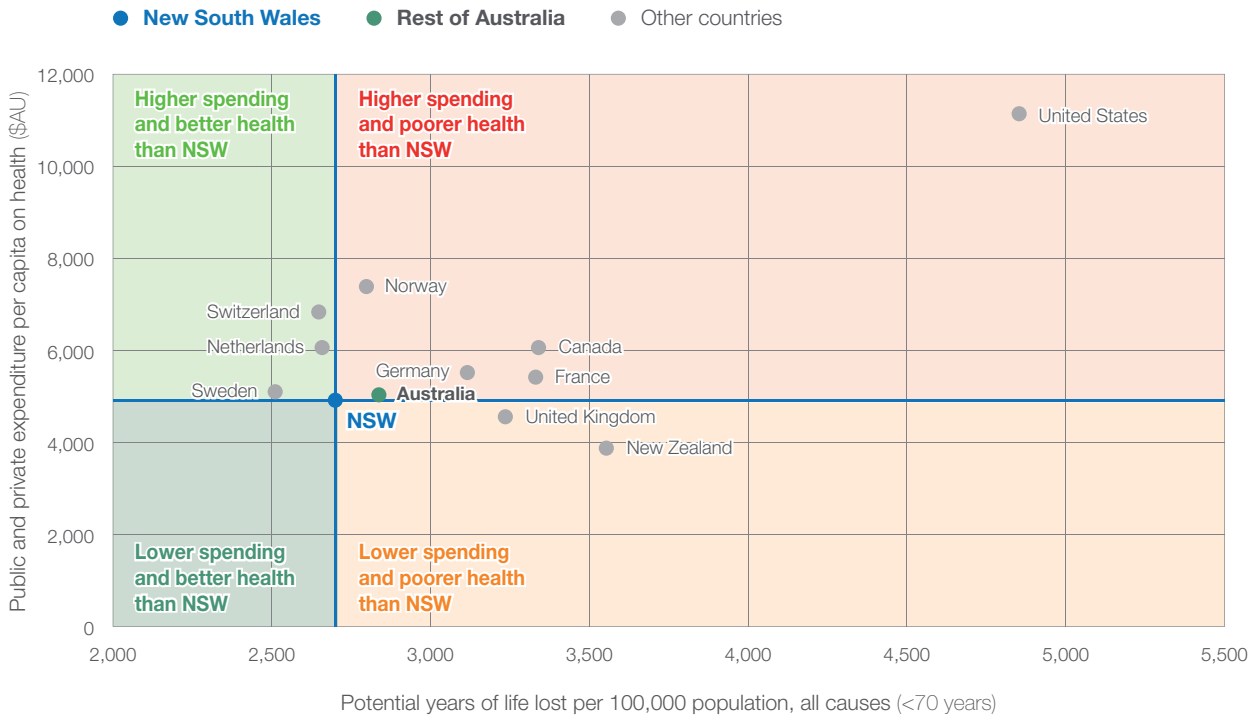
Health and the quality of healthcare services are vitally important to communities around the world. In NSW, people expect timely access to safe, high-quality care for all who need it. They also want ready access to information about what their healthcare system is delivering and how it compares with others.

In 2010, the Bureau published its first annual performance report, *Healthcare in Focus: how NSW compares internationally*.[1] The report provided a comprehensive assessment of the performance of the NSW healthcare system. Two key messages emerged from that report.

First, NSW gets value for its healthcare dollar. Figure 1.1 shows that according to the latest available data this is still the case. No country included in our report spent less per person and had lower premature mortality.

The second key message from 2010 was that, despite considerable accomplishments, there are areas where the healthcare system in NSW could be strengthened. In particular, the management of chronic diseases, reducing unnecessary hospital use and better flow of patient information were identified as opportunities to improve.

Figure 1.1: Per person health spending ($AU) 2008–09 vs potential years of life lost, 2009 (or latest year)¥



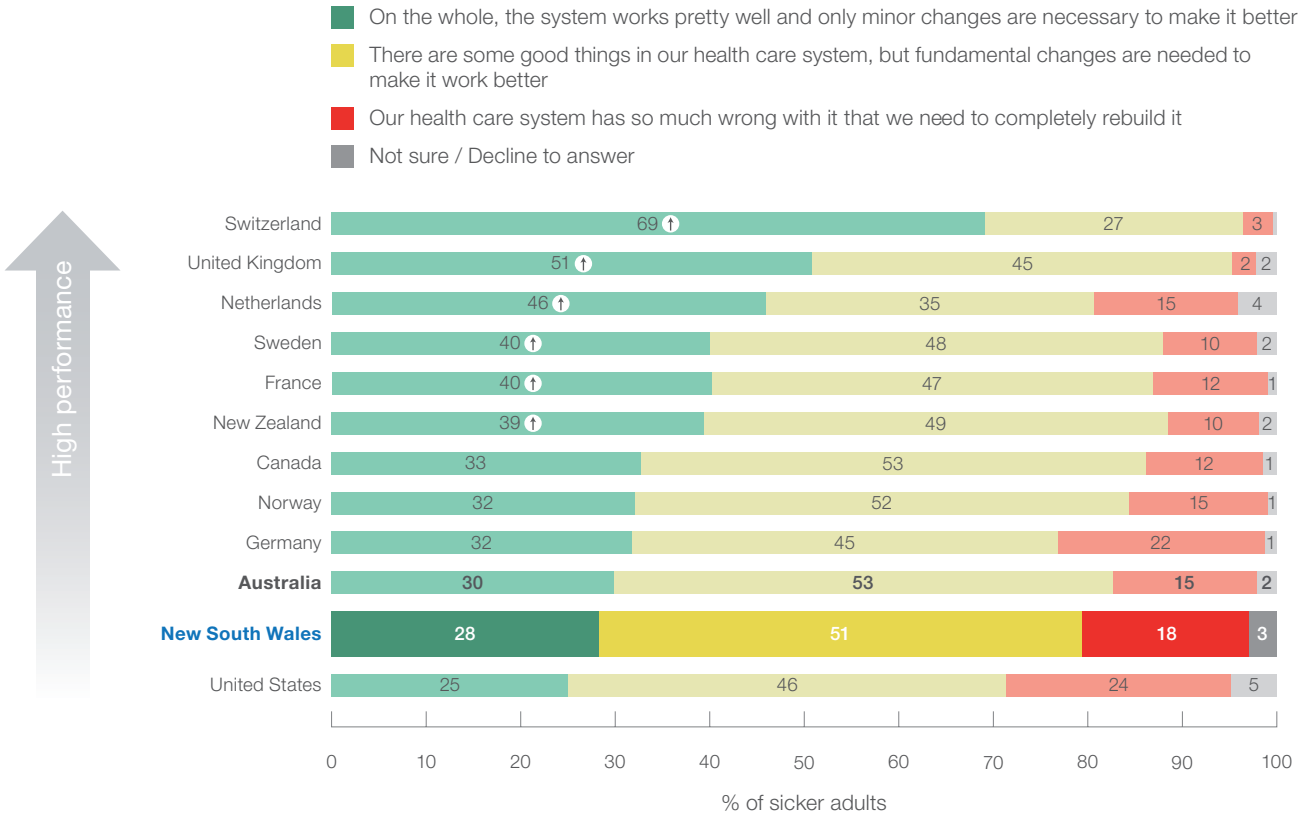
(*) These findings are similar to work that compares Australia to other countries in achieving health per dollar spent, see *Healthcare in Focus 2010* for details.

Building on these findings, the 2011 report puts the spotlight on people likely to have had significant direct experience of the healthcare system in the recent past – termed '*sicker adults*' internationally.[2,3,4]

Healthcare in Focus 2011 uses around 90 performance measures to compare the NSW healthcare system with Australia as a whole and 10 other countries. It includes measures of population health, utilisation of healthcare and sicker adults' experiences with the healthcare system. It provides detailed information on six performance dimensions: effectiveness and appropriateness; access and timeliness; safety; person centredness; equity; and resources.

Figure 1.2 shows that when asked about their overall view of their country's healthcare system, almost three in 10 NSW sicker adults (28%) said that the system works pretty well and only minor change is required. Almost two in 10 (18%) said it requires a complete rebuild. Views in NSW were less positive than in most comparator countries.

Figure 1.2: **Survey 2011** Which of the following statements comes closest to expressing your overall view of the healthcare system in this country?[Ω]



(¥) OECD Health Data 2011 and AIHW expenditure database. Potential Years of Life Lost (PYLL) is a summary measure of premature mortality. The calculation for PYLL involves adding up deaths occurring at each age and multiplying this with the number of remaining years to live until a selected age limit (70 years). $AU Australian dollars (purchase price parity and current prices).

(Ω) The Commonwealth Fund's 2011 International Survey of Sicker Adults in Eleven Countries (fair / poor self-rated health OR chronic condition OR hospitalised or had surgery in previous two years). Percentages may not add up to 100 due to rounding, ↑ estimate almost certainly higher than NSW; ↓ estimate almost certainly lower than NSW.

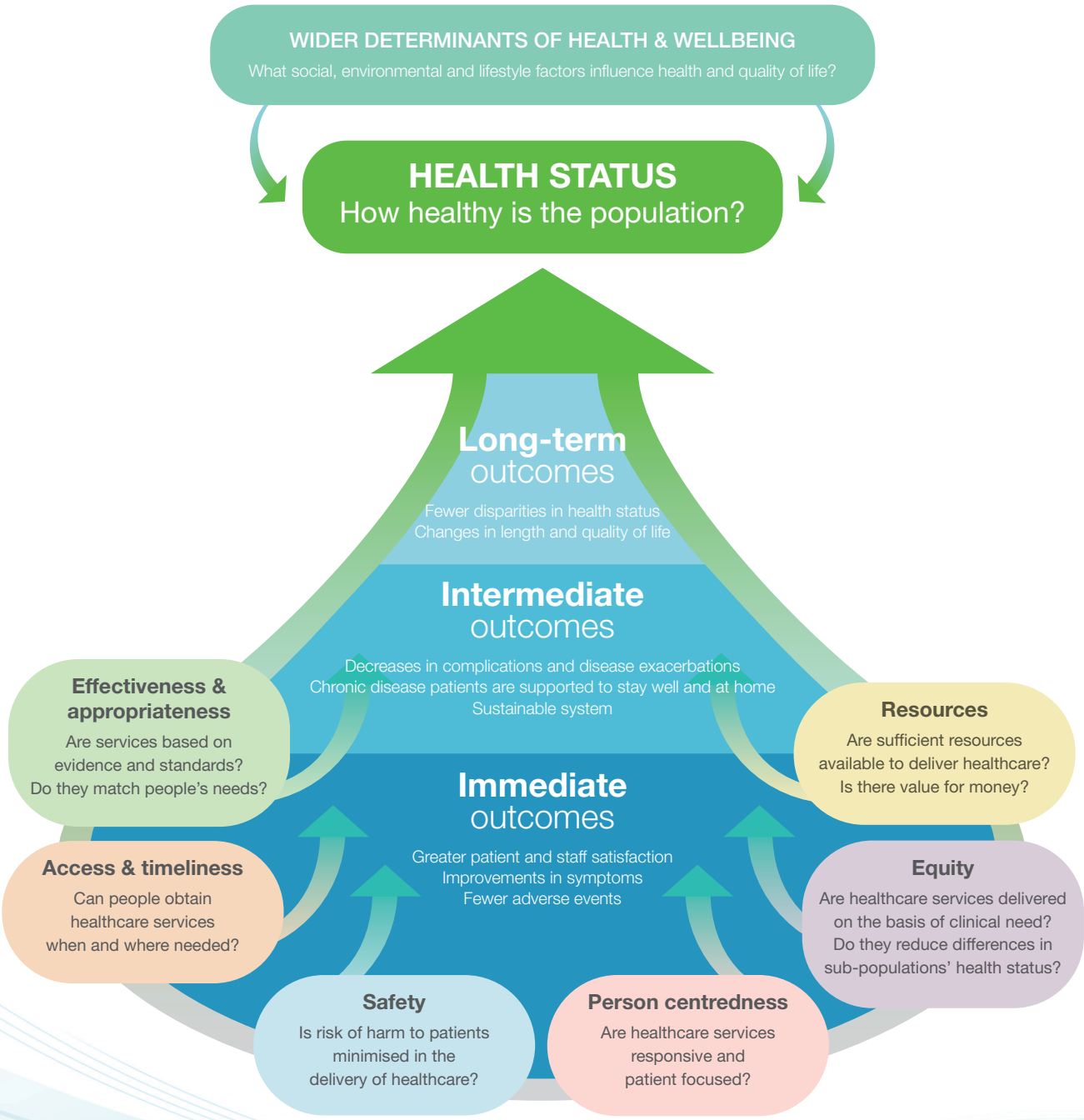
The conceptual framework

Understanding and evaluating the healthcare system in NSW

The Bureau, drawing on international[5] and national[6] efforts to define and measure *'high performance'* in healthcare, has developed a conceptual framework to guide the assessment of the healthcare system in NSW (Figure 1.3).

Population health status is at the core of the framework, emphasising that the overall goal of a healthcare system is to protect and improve health and wellbeing in the community it serves.

Figure 1.3: **The Bureau of Health Information's performance framework:** a guide for understanding and evaluating the NSW healthcare system



Data sources

Healthcare in Focus 2011 draws on five principal sources of data:

The Commonwealth Fund's 2011 International Survey of Sicker Adults in Eleven Countries.

Reflecting the views of 18,667 sicker adults in 11 countries, the 2011 Commonwealth Fund survey included people who met at least one of the following criteria: described their overall health as fair or poor; ***OR*** received medical care in the previous year for a serious or chronic illness, injury or disability; ***OR*** had been hospitalised in the previous two years (for any reason other than childbirth); ***OR*** had surgery in the previous two years. Results were weighted to represent the age, sex, education and regional distribution of each country's population.

In NSW, 1,000 adults who met at least one of these criteria were surveyed between March and June 2011. While the Commonwealth Fund provided core funding for the survey, the Bureau supplemented this funding to increase the sample size so it was sufficient for valid comparison of NSW with Australia as a whole and the other countries surveyed.

Descriptions of data sources and statistical analyses undertaken by the Bureau are available in the *Technical Supplement: Healthcare in Focus 2011* (see www.bhi.nsw.gov.au).

The Organisation for Economic Co-operation and Development (OECD)

- provided mortality, hospitalisation, procedure and expenditure data for 11 countries.

Australian Bureau of Statistics (ABS)

- provided mortality data. Data for 2008 are classified as ***'revised'*** data and 2009 data are classified as ***'preliminary'***.

Australian Institute for Health and Welfare (AIHW)

- provided detailed data on healthcare expenditure in NSW and Australia, structured to allow fair comparisons with other OECD countries.

NSW Admitted Patient Data Collection

- administered by the NSW Ministry of Health, is a census of all admitted patient services provided by public and private hospitals in the state.

Interpreting this report

This report sets the performance of the NSW healthcare system alongside Australia and 10 other countries. Summary tables at the beginning of each chapter highlight key results for the state, listing those countries which statistical analyses suggest truly differ from NSW.†

Information is included on the NSW healthcare system as a whole, reflecting both hospital and primary care services. Additionally, many indicators include public and private sector healthcare. This is because international data that support comparisons between countries do not generally distinguish between public and private sectors.

(†) Statistical analyses show that the observed differences were ***not*** due to chance or sampling limitations. See *Technical Supplement: Healthcare in Focus 2011* for details.

Wider determinants of health and wellbeing

Smoking rates have improved but obesity rates have not

The concept of *'wider determinants of health and wellbeing'* refers to factors that impact health but are largely outside the control of the healthcare system. It encompasses:

- *environmental factors*, such as air, food and water quality
- *community and socioeconomic factors*, such as housing, education, employment
- *biomedical factors*, such as genetic susceptibility to disease
- *health behaviours* such as diet, physical activity, smoking and alcohol consumption.[6]

Health behaviours play a particularly important role in influencing the risk of developing a serious illness and preserving health and wellbeing.

In NSW, patterns over time show an increase in self-reported rates of obesity and of being overweight. More positively, there has been an increase in self-reported levels of physical activity and a decrease in smoking rates (Figure 1.4).

Figure 1.5 shows data on obesity in NSW, Australia and comparator countries and highlights the mismatch between adults' self-reported levels of overweight and obesity and their true measurements.

A comprehensive account of health and its wider determinants in NSW can be found in *The Health of the People of NSW - Report of the Chief Health Officer*.[7]

Figure 1.4: Wider determinants time series, % smokers; % overweight or obese; % adequate physical activity, self-reported, NSW persons 16+ years, 2002 – 2010#

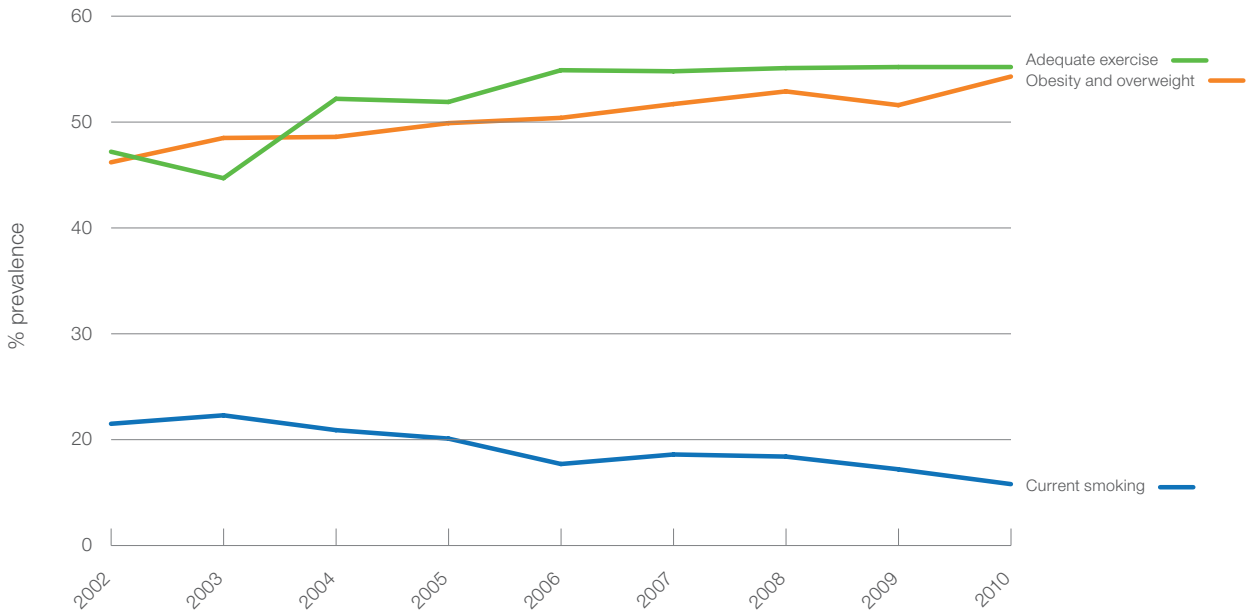
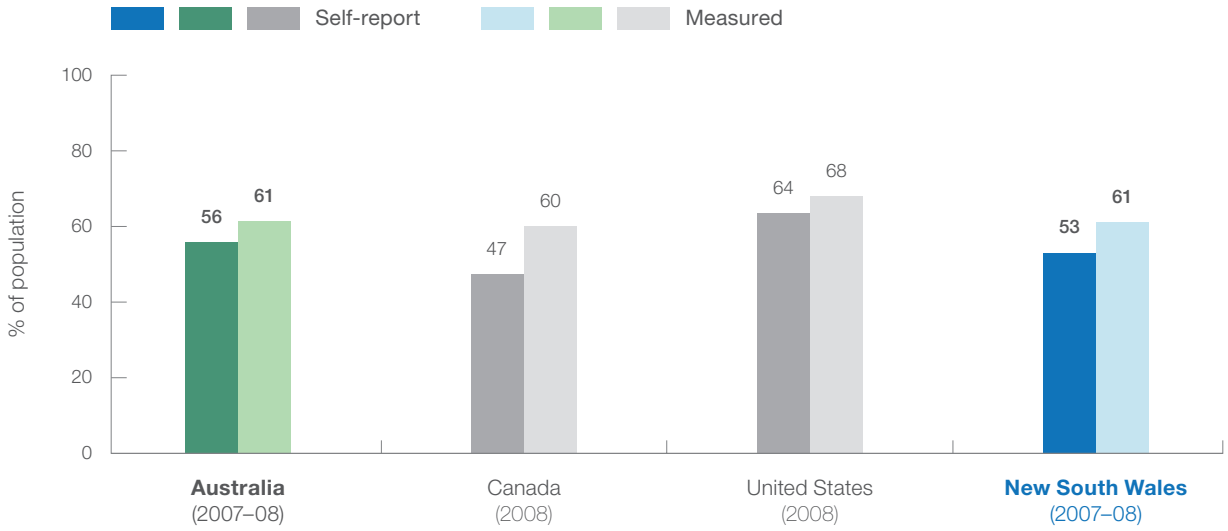


Figure 1.5: International snapshots – self reported and measured overweight and obesity, 2007 or 2008[ΠΠ]



(#) NSW Population Health Survey, 2010. Adequate physical activity defined as undertaking physical activity for a total of at least 150 minutes per week over five separate occasions. Overweight or obese refers to those with a body mass index of 25kg/m^2 or more.

(ΠΠ) NSW Population Health Survey, 2010, Australian Bureau of Statistics (ABS) National Health Survey and OECD Health Data 2011.

Health status

Cancer and heart disease death rates continue to fall

Health status measures provide information on:

- *deaths*, including life expectancy and mortality rates
- *health conditions*, such as prevalence of diseases, injuries or disorders
- *function*, such as activity limitations and restrictions
- *wellbeing*, including physical, mental and social wellbeing.[6]

Actions, behaviours and treatments sometimes take years, or even decades, to have a discernible impact on population measures of health.

Life expectancy is relatively high in NSW. A child born in 2007 can expect to live for 79.8 years if he is male and 84.4 years if she is female.[7]

People are living longer, and mortality rates from common cancers and circulatory diseases fell in NSW between 1999 and 2009 (Figure 1.6).

In NSW, fewer than two in 10 adults (16%) described their overall health as fair or poor; three in 10 adults (33%) said they had a serious or chronic illness, injury or disability for which they had received care in the previous 12 months; and more than two in 10 (24%) reported being hospitalised in the previous two years (Figure 1.7).

Figure 1.6: Mortality from cancer and circulatory diseases, NSW 1999 – 2009†

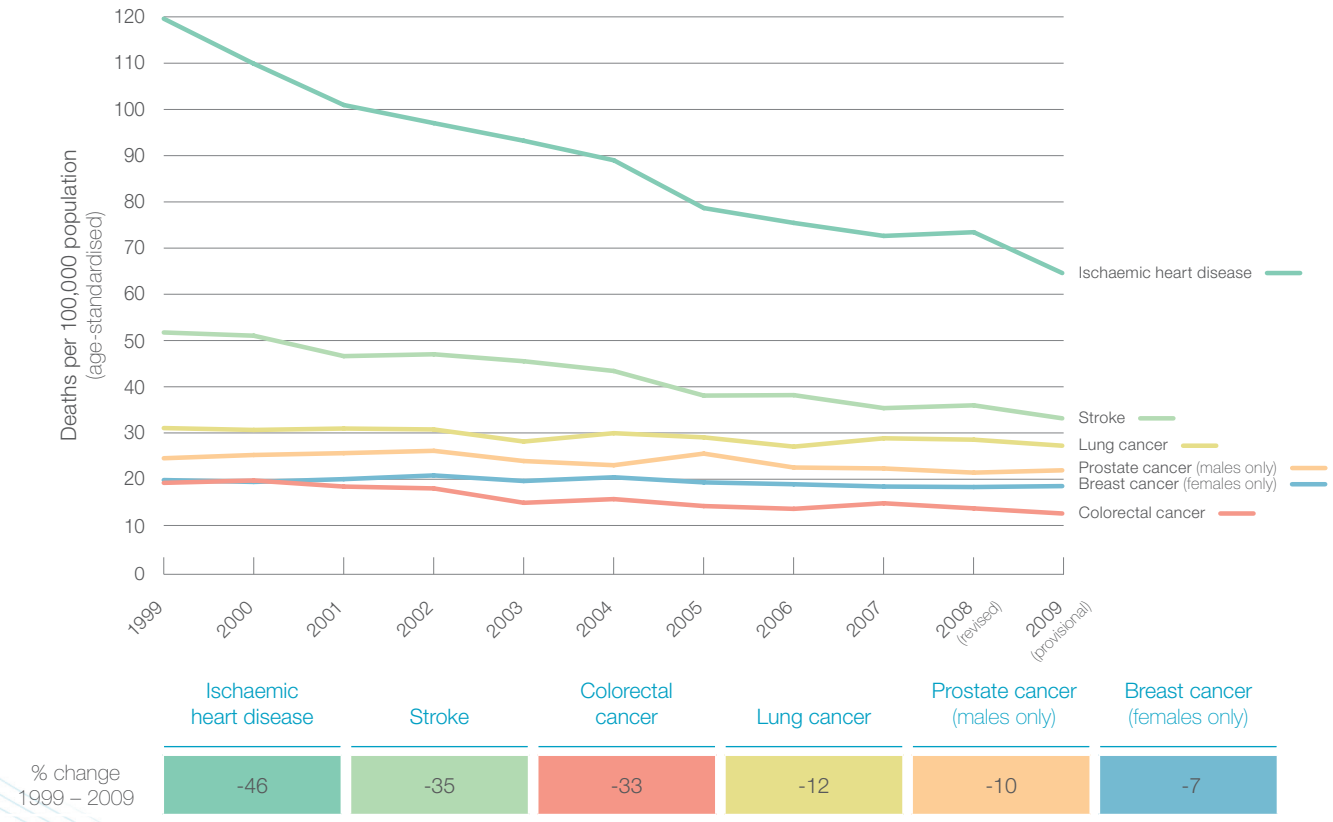
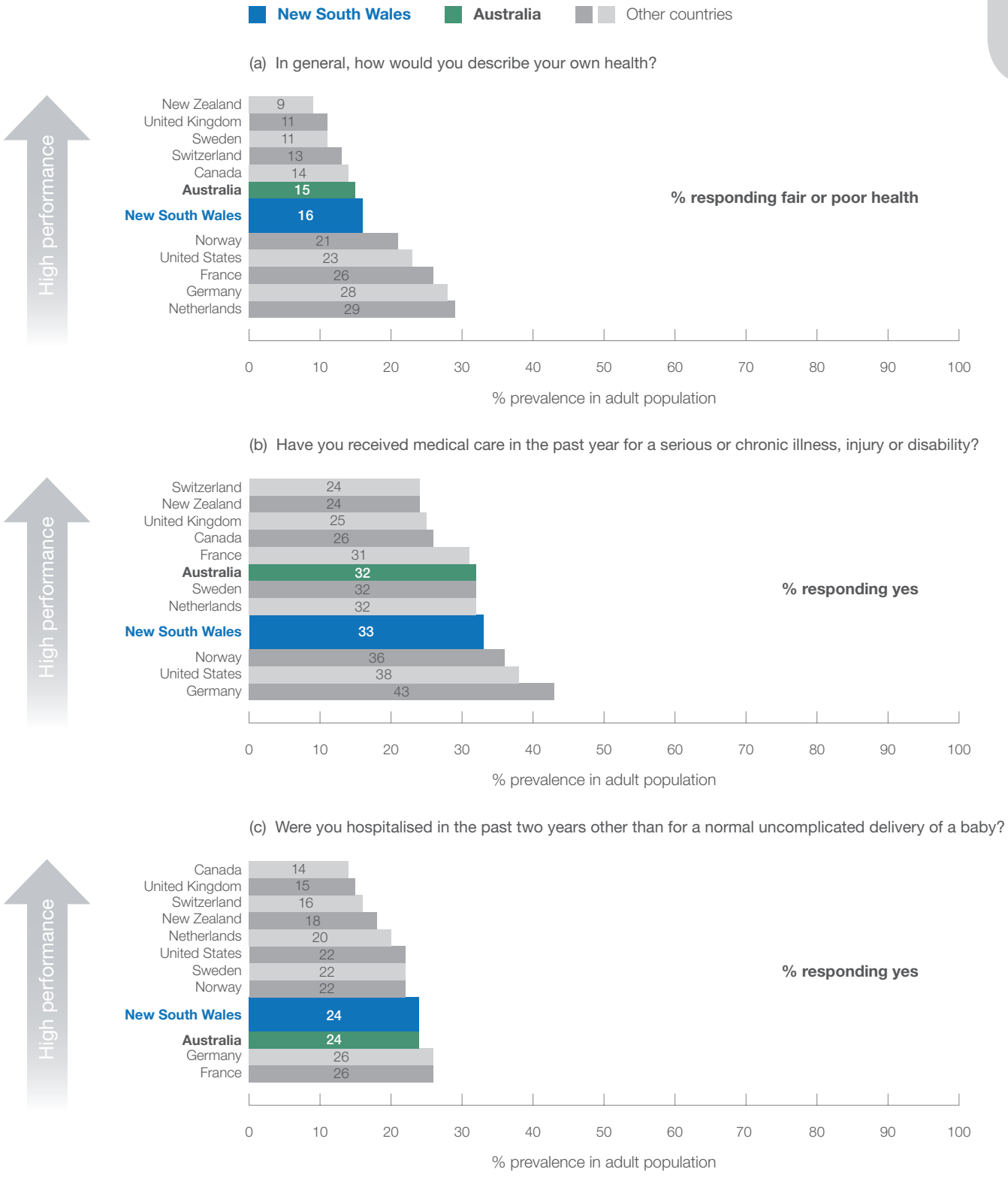


Figure 1.7: Adults' self-reported health status in 11 countries, 2011Ω



(†) HOIST 1999 – 2007, ABS 2007–09. Age-standardised to the 1980 OECD population. ABS figures are subject to further revision.

(Ω) The Commonwealth Fund's 2011 International Survey of Sicker Adults in Eleven Countries. This graph shows responses from adults randomly selected to participate in the *Sicker Adults* survey. For NSW, a total of 2,108 adults were screened to achieve a sicker adult cohort of 1,000 people. Sampling tolerances for these data are 1-3% (95% confidence). For further details, see *Technical Supplement: Healthcare in Focus 2011*.

Effectiveness and appropriateness

Gauging whether services are based on professional standards and evidence

High-performance healthcare systems provide care that is both effective and appropriate.

Effective care refers to use of medical treatments, services and preventive actions that are known to improve health.

This chapter includes effectiveness indicators for high prevalence or high-impact diseases such as cancer, circulatory disease, diabetes and mental health conditions. The indicators focus on:

- Outcomes: whether there have been improvements in health status or determinants of health, which suggest that interventions have worked
- Processes: whether care delivered to patients is evidence-based, or has been shown to be associated with improved health.

Appropriateness indicators measure whether effective care was delivered in accordance with patients' needs. They aim to count cases where:

- Effective care was not provided despite being medically necessary or of proven benefit to patients
- Care was provided when it was not medically necessary
- Care was not provided correctly or was suboptimal because of a preventable problem such as medical error, misdiagnosis or avoidable complication.

In this report, appropriateness indicators focus on two surgical procedures commonly performed on women: Caesarean sections and hysterectomies.

'Sicker adults' refers to people who are likely to have had significant direct experience of the healthcare system in the recent past. It includes people who met at least one of the following criteria:

- Described their overall health as fair or poor
- Received medical care in the previous year for a serious or chronic illness, injury or disability
- Had been hospitalised in the previous two years (for any reason other than childbirth)
- Had surgery in the previous two years.

What we learnt about NSW	How well does NSW perform? NSW performed *better* than:	NSW performed *worse* than:
Potential years of life lost (PYLL) to cancer fell by 19% between 1999 and 2009†	In 2008 or 2009: United Kingdom, Norway, Netherlands, France	In 2008 or 2009: Sweden
Most sicker adults (88%) with circulatory disease or diabetes had their cholesterol checked in the past year*	Netherlands, Sweden	No countries
Almost all sicker adults (99%) with circulatory disease or diabetes had their blood pressure checked in the past year*	Sweden, Netherlands, Switzerland, Norway	No countries
More than seven in 10 (73%) people in the 65+ age group were vaccinated against influenza in 2009	France, United States, Canada, New Zealand, Sweden, Germany, Switzerland	Netherlands, United Kingdom
Potential years of life lost to circulatory disease fell by 31% between 1999 and 2009†	In 2008 or 2009: United Kingdom, Norway, Netherlands	In 2008 or 2009: France, Sweden
In 2009, more than 30% of live births were Caesarean sections	Switzerland, United States	Canada, New Zealand, United Kingdom, France, Sweden, Norway, Netherlands

(†) Australian Bureau of Statistics (ABS) cause of death data for 2009 are subject to revision. PYLL comparisons are limited to those countries with available data for 2008 or 2009.

(*) Statistical analyses suggest that NSW results were truly different from those in the countries indicated.

Effectiveness and appropriateness:
Circulatory disease

Premature deaths have dropped significantly

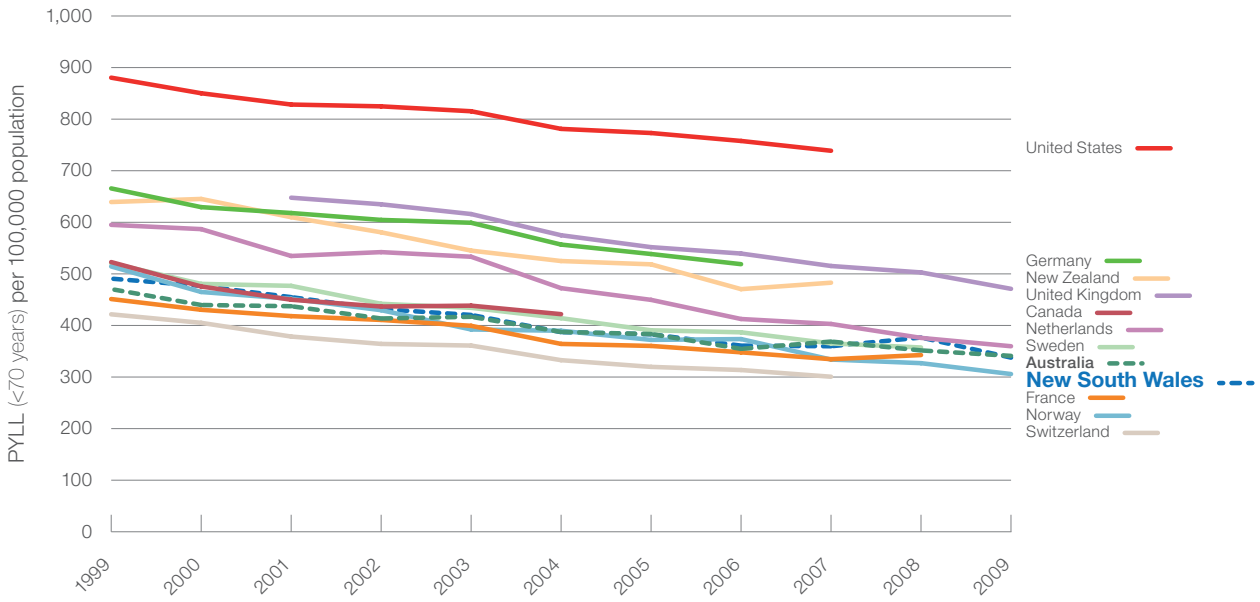
The circulatory system moves blood around the body. Circulatory disease is primarily caused by atherosclerosis (hardening of the arteries). Atherosclerosis is most serious when it disrupts the blood supply to the heart (causing angina or heart attack) or to the brain (causing a stroke).

Between 1999 and 2009, there was a 31% decrease in potential years of life lost to circulatory disease in NSW (Figure 2.1). In 2009, circulatory disease accounted for 15,884 deaths in NSW (34% of all deaths).[1]

In 2009, there were 108,485 overnight hospitalisations (public and private) for which circulatory disease was the principal diagnosis, including 14,600 for acute myocardial infarction (AMI or heart attack) and 12,455 for stroke.[2]

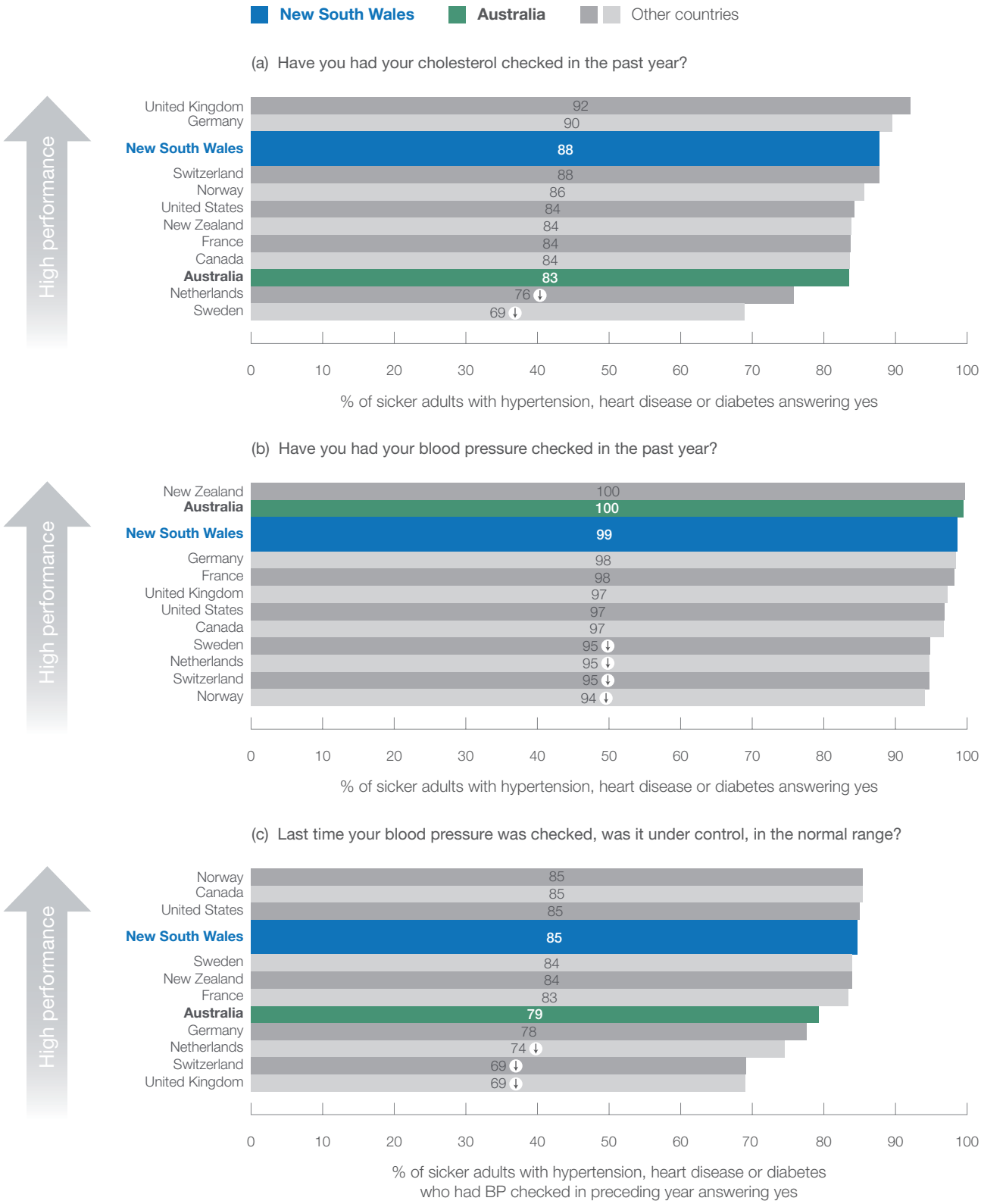
Effective care for circulatory disease involves regular blood pressure (BP) and cholesterol checks. In 2011, most (88%) adults in NSW with hypertension, heart disease or diabetes* reported having their cholesterol checked in the past year. Almost all (99%) reported having their BP checked. Of those checked, 85% reported that their BP result was within the normal range (Figure 2.2).

Figure 2.1: Potential years of life lost (< 70 years) to circulatory disease, 1999 – 2009#



(*) Diabetes, if not well controlled, can affect the circulatory system.

Figure 2.2: **Survey 2011** Appropriate care processes for circulatory disease[Ω]



(#) **OECD Health Data 2011.** Age standardised to the 1980 OECD population. For NSW and Australia, **HOIST** (1999 – 2007); 2008 and 2009 figures are based on ABS data and subject to further revision.

(Ω) **The Commonwealth Fund's 2011 International Survey of Sicker Adults in Eleven Countries** (fair / poor self-rated health OR chronic condition OR hospitalised or had surgery in previous two years). Percentages may not add up to 100 due to rounding, ↑ estimate almost certainly higher than NSW; ↓ estimate almost certainly lower than NSW.

Effectiveness and appropriateness: Cancer

Cancer survival in NSW is higher than in many comparator countries

Cancer is a group of diseases characterised by uncontrolled growth and spread of abnormal cells. In 2008, 36,611 NSW people were diagnosed with cancer. Cancers of the prostate, bowel, breast, skin and lung were together responsible for 63% of all new cases.[3]

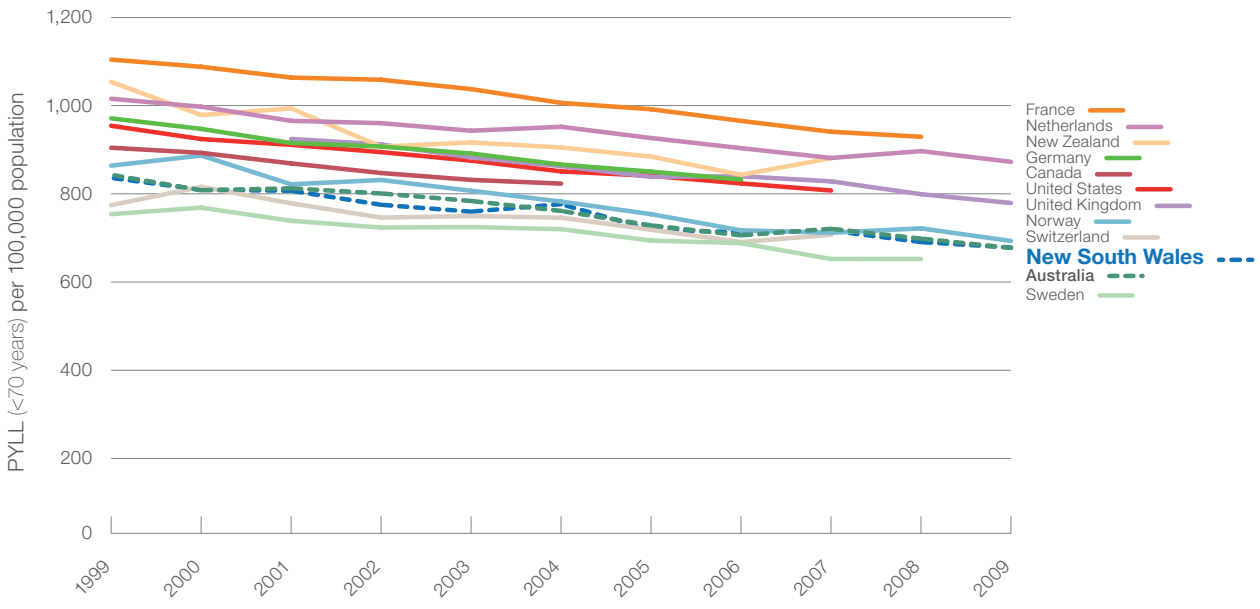
In 2009, there were 13,526 cancer deaths[1] (malignant neoplasms) and 98,722 overnight and day-only hospitalisations (public and private) with cancer as the primary diagnosis.[4]

Potential years of life lost (PYLL) to cancer in NSW fell by 19% between 1999 and 2009. Internationally, NSW performs well, with one of the lowest rates of PYLL (Figure 2.3).

Nine in 10 NSW women diagnosed with breast cancer in 2005–07 (87.8%) will be alive five years after their diagnosis. Almost seven in 10 colorectal cancer patients (66.4%) and two in 10 lung cancer patients (17.6%) in NSW will survive at least five years (Figure 2.4).

Screening can help in the early detection of some cancers, improving outcomes. For breast cancer, 223,823 NSW women in the target age group (50-69 years) were screened for breast cancer in 2009. This corresponds to a participation rate of 54%.[5] The Netherlands (82%), Norway (74%), UK (74%) and New Zealand (67%) achieve higher participation rates. For France (55%), Germany (54%), and Australia (55%), rates are similar to NSW.[6]

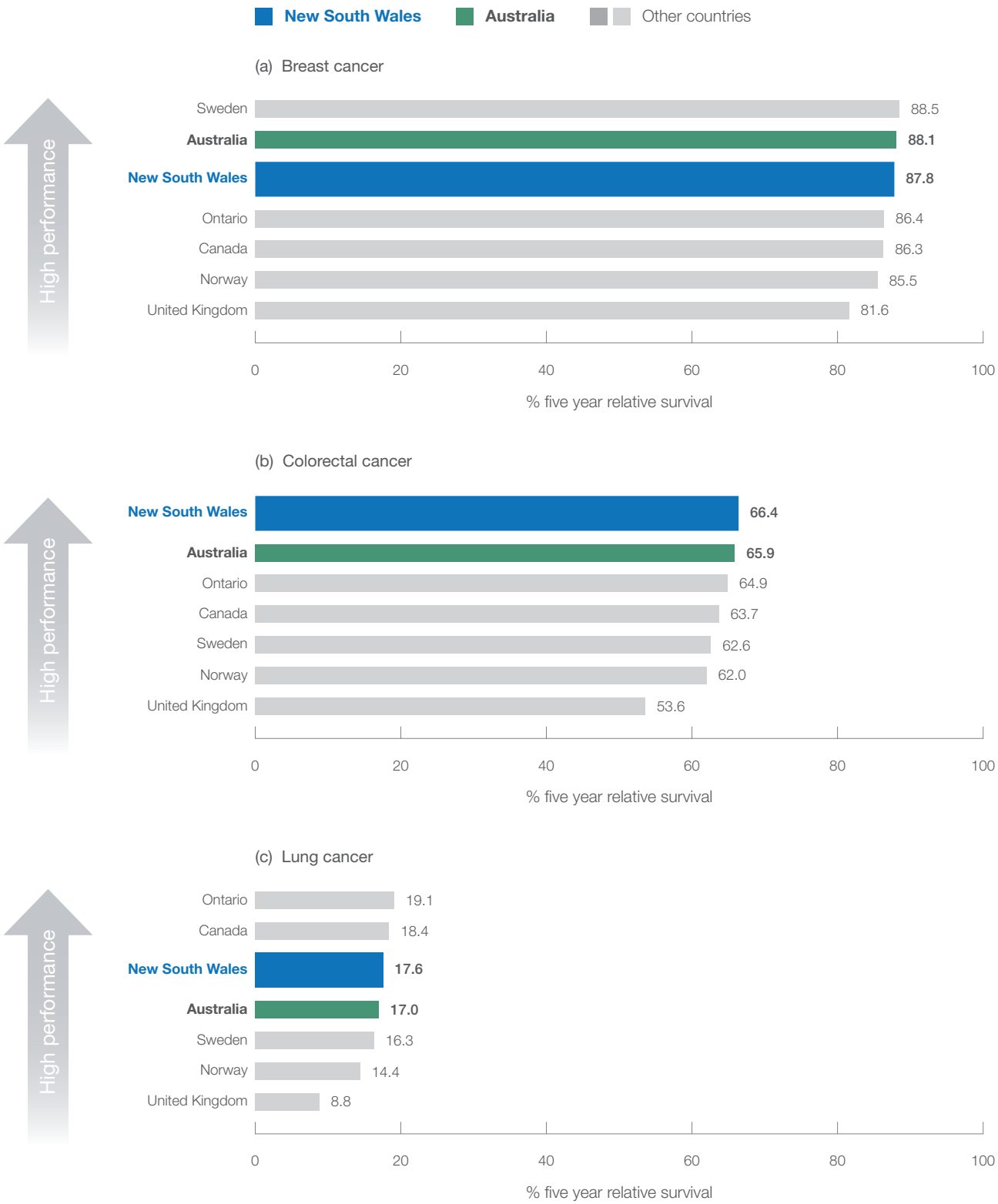
Figure 2.3: Potential years of life lost (< 70 years) to cancer, 1999 – 2009[#]



(#) **OECD Health Data 2011.** Data are age-sex standardised to the 1980 OECD population. For NSW and Australia, HOIST (1999 – 2007); 2008 and 2009 figures are based on ABS data and are subject to further revision. Potential years of life lost is a summary measure of premature mortality, calculated by totalling deaths at each age, multiplying that by the number of remaining years of life up to a selected age limit, which for OECD analyses is 70 years.

(¶) **Population-based cancer registries.** Measures survival from cancer after adjustment for other causes of death. Estimates made using period approach. For details see *Coleman et al, 2010.*[7]

Figure 2.4: Age-standardised five-year relative survival, breast, colorectal and lung cancer, 2005–07¶



Effectiveness and appropriateness: Diabetes

Most diabetes patients in NSW receive recommended care

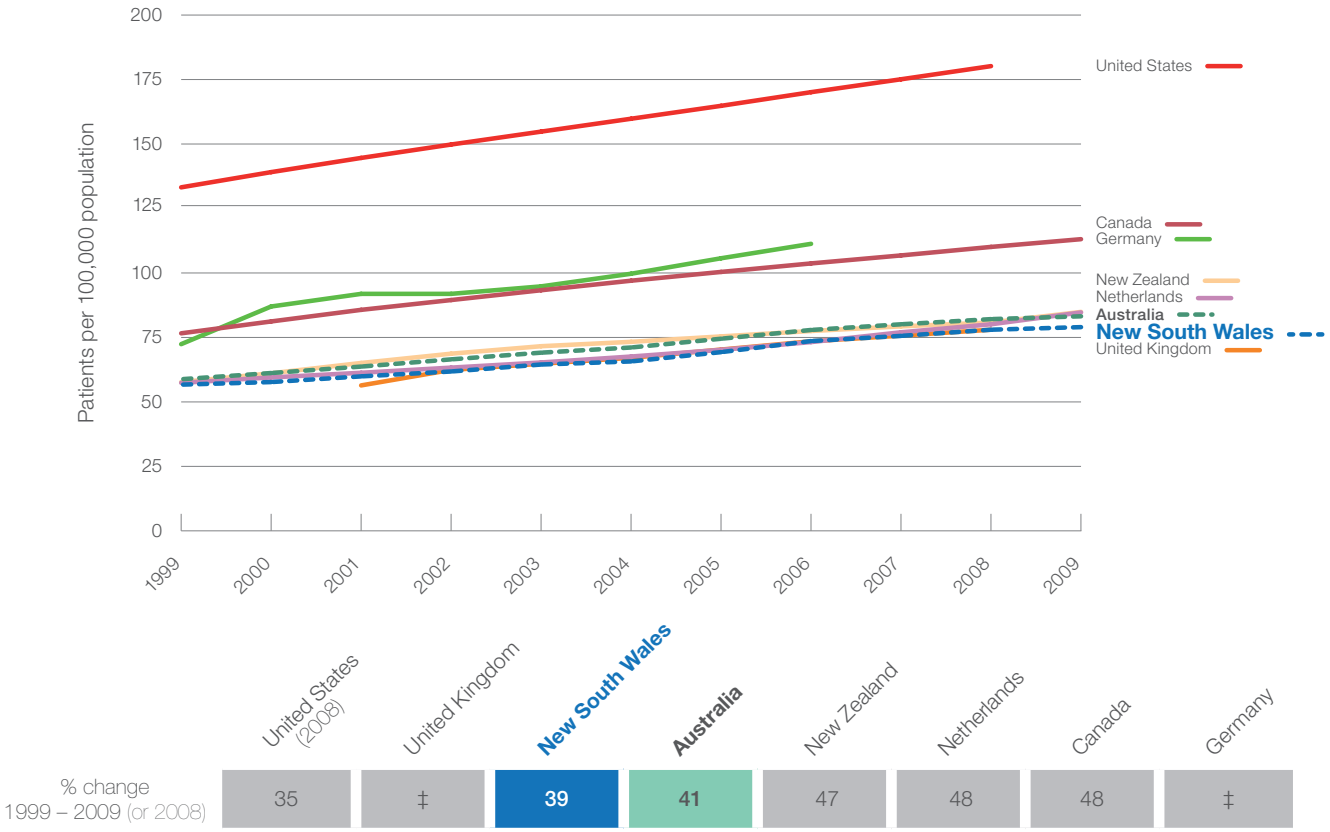
Diabetes mellitus occurs when the pancreas does not produce enough insulin (type 1), or the body is resistant to insulin (type 2). Type 2 diabetes is the most common (90% of all cases).

Careful control of blood sugar levels, cholesterol, blood pressure and weight help prevent complications. Poor control can result in serious chronic ill-health, disability and premature death. For example, diabetes is the leading cause of kidney failure requiring dialysis or transplantation (referred to as end-stage renal disease).

Between 1999 and 2009, NSW saw a 39% increase in end-stage renal disease prevalence (Figure 2.5). At the same time, NSW and Australia saw steep increases in overall hospitalisations for diabetes (Figure 2.6).

Among NSW diabetics participating in the 2011 Commonwealth Fund survey, most reported receiving three elements of recommended care. Nine in 10 (94%) had their HbA1c* checked in the preceding year. Almost seven in 10 diabetics (67%) had a foot exam; and eight in 10 diabetics (81%) had an eye exam (Figure 2.7).

Figure 2.5: End-stage renal disease, prevalence, 1999 – 2009#



(*) Indicates whether blood sugar levels are well controlled.

Figure 2.6: Hospitalisations for diabetes mellitus (principal diagnosis), 1999 – 2009[μ]

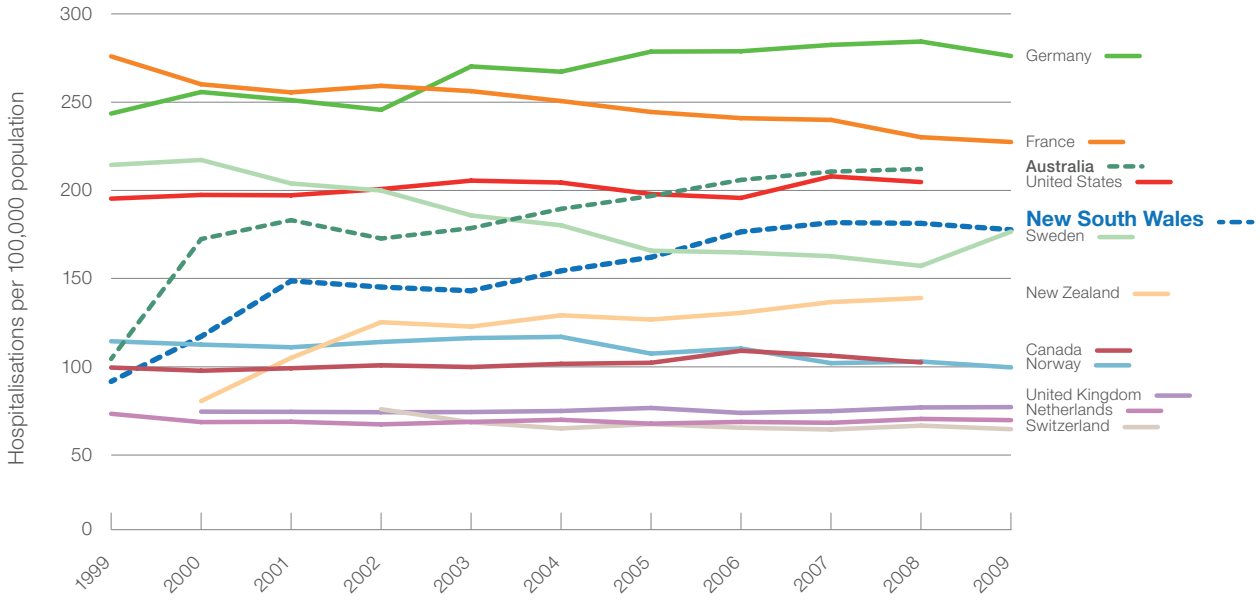
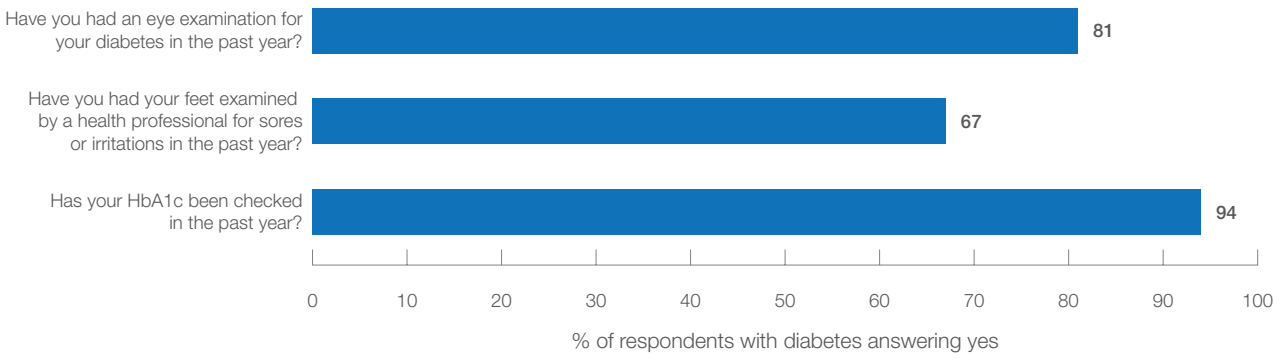


Figure 2.7: **Survey 2011** Diabetes process measures, in NSW[Ω]



(#) OECD Health Data 2011 and NSW Australia and New Zealand Dialysis and Transplant Registry.
(‡) Suppressed due to truncated time series.
(μ) OECD Health Data 2011 and NSW Admitted Patient Data Collection. Excludes day-only hospitalisations.
(Ω) The Commonwealth Fund's 2011 International Survey of Sicker Adults in Eleven Countries (fair / poor self-rated health OR chronic condition OR hospitalised or had surgery in previous two years). Sample size for NSW is 126 people with diabetes out of 2,108 people screened for survey participation.

Effectiveness and appropriateness:
Respiratory disease

Nearly three-quarters of older adults receive flu vaccination

The respiratory system supplies the blood with oxygen for delivery to all parts of the body. It includes the airways and the lungs. Respiratory disease comprises both acute (e.g. influenza and pneumonia) and chronic (e.g. chronic obstructive pulmonary disease and asthma) conditions.

Potential years of life lost (PYLL) to respiratory disease in NSW decreased by 28% between 1999 and 2009. The latest available PYLL results place NSW mid-range internationally (Figure 2.8).

Many hospitalisations for respiratory diseases are considered to be potentially avoidable with vaccination and appropriate management.

In NSW, hospitalisation rates for respiratory disease are relatively high compared with international figures (Figure 2.9).

Annual influenza vaccination is recommended for people aged 65 years or over as an effective way of preventing illness and minimising hospitalisations. More than seven in 10 (72.7%) people in the 65+ age group in NSW were vaccinated in 2009 – a high rate in international terms (Figure 2.10).

Figure 2.8: Potential years of life lost (< 70 years), respiratory disease, 1999 – 2009#

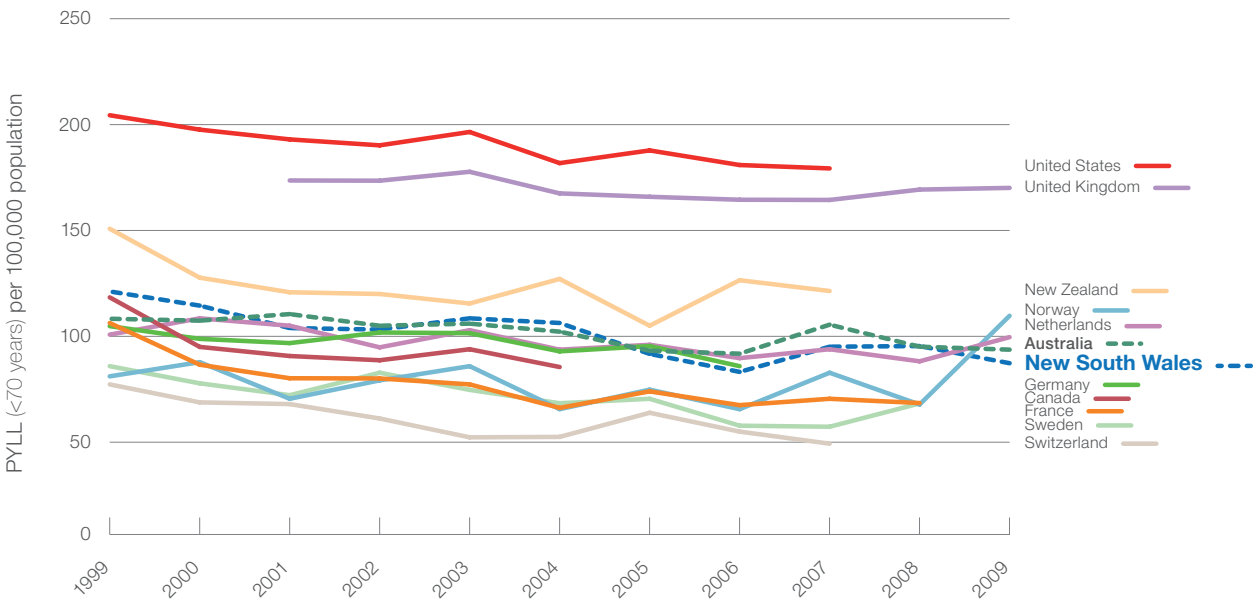


Figure 2.9: Hospitalisations for respiratory conditions (principal diagnosis), 1999 – 2009¶

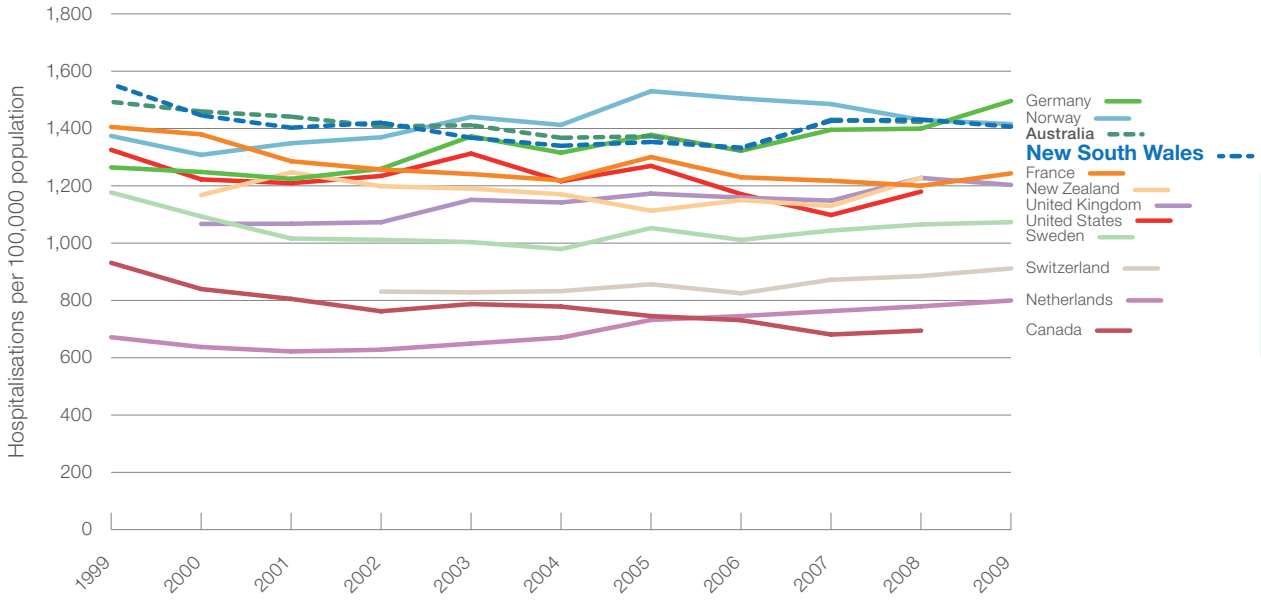
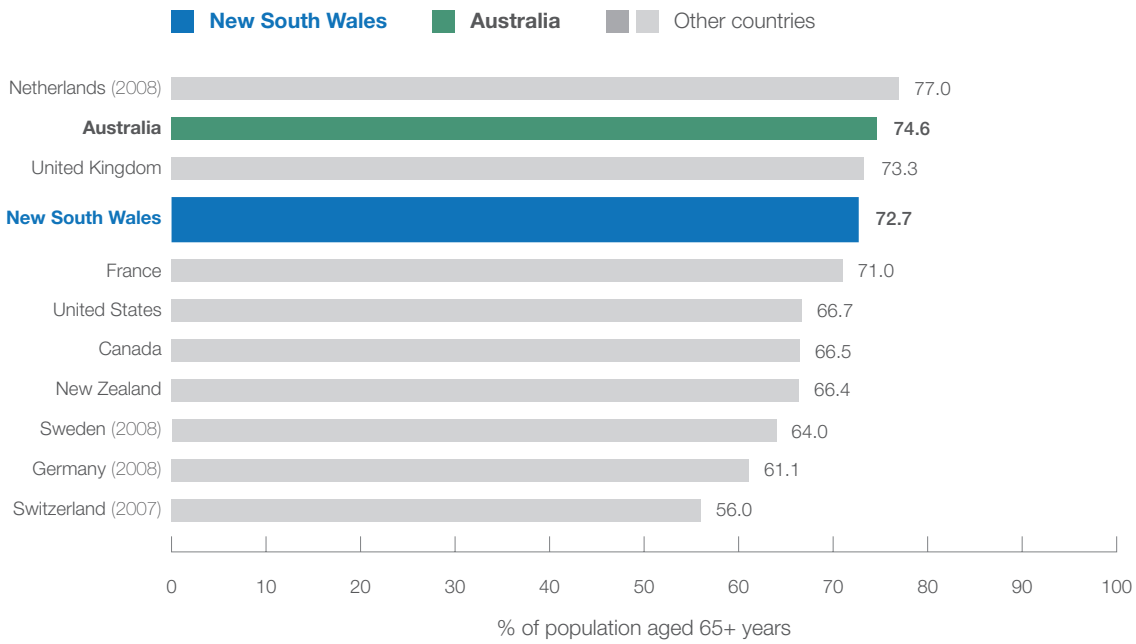


Figure 2.10: Influenza vaccination, people aged 65+ years, 2009 (or latest year)ø



(#) OECD Health Data 2011. Data are age-sex standardised to the 1980 OECD population. For NSW and Australia, HOIST (1999 – 2007); 2008 and 2009 figures are based on ABS data and are subject to further revisions. Potential years of life lost is a summary measure of premature mortality, calculated by totalling deaths at each age, multiplying that by the number of remaining years of life up to a selected age limit, which for OECD analyses is 70 years.

(¶) OECD Health Data 2011 and NSW Admitted Patient Data Collection. Excludes day-only hospitalisations.

(Ø) OECD Health Data 2011 and AIHW 2009 Adult Vaccination Survey.

Effectiveness and appropriateness: Mental health

Community mental healthcare after discharge is improving

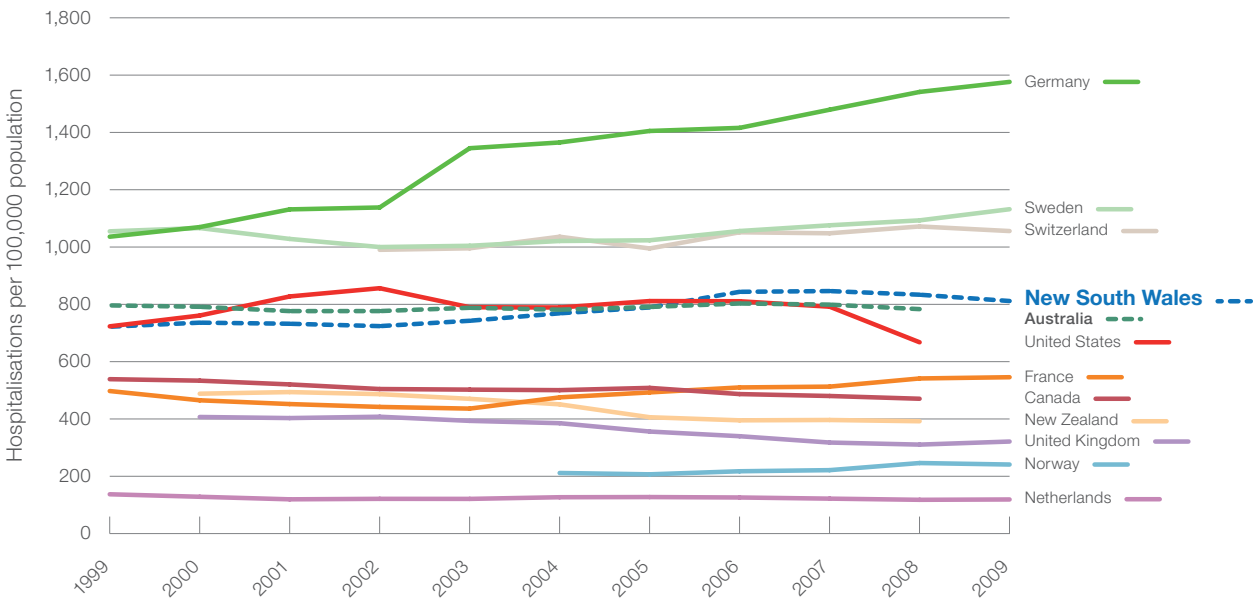
NSW has recorded a steady rate of hospitalisations for mental and behavioural disorders over the past decade. The NSW rate is mid-range internationally (Figure 2.11).

For patients admitted to psychiatric inpatient services, the provision of a responsive community support system is essential to maintaining clinical and functional stability and minimising the need for hospital readmission. International literature suggests one week as a key time period following discharge.[8]

In 2009–10, over five in 10 people discharged from psychiatric inpatient services (56%) in NSW received follow-up community care within seven days of discharge. This is an increase from the rate recorded in 2005–06 and is higher than that for Australia as a whole (Figure 2.12).

The episodic and cyclic nature of some chronic mental illness can lead to multiple admissions over a lifetime. However, high levels of unplanned readmissions are generally considered indicative of poor care or coordination either from inadequate inpatient treatment and / or discharge planning, or inadequate community follow up to maintain the person in the community, or a combination of both.[9] In 2009–10, NSW recorded a 16% readmission rate, higher than for Australia as a whole (Figure 2.13).

Figure 2.11: Hospitalisations for mental and behavioural disorders (principal diagnosis), 1999 – 2009¶



(¶) OECD Health Data 2011 and NSW Admitted Patient Data Collection. Excludes day-only hospitalisations.
(#) Australian Health Ministers Advisory Council. COAG National Action Plan for Mental Health 2006–2011: Progress Report 2009–10. Data provided by INFORMH, NSW Ministry of Health. 2009–10 data are for first nine months of the year only.

Figure 2.12: Rates of community follow-up within seven days of discharge from psychiatric inpatient services, NSW and Australia, 2005–06 to 2009–10[#]

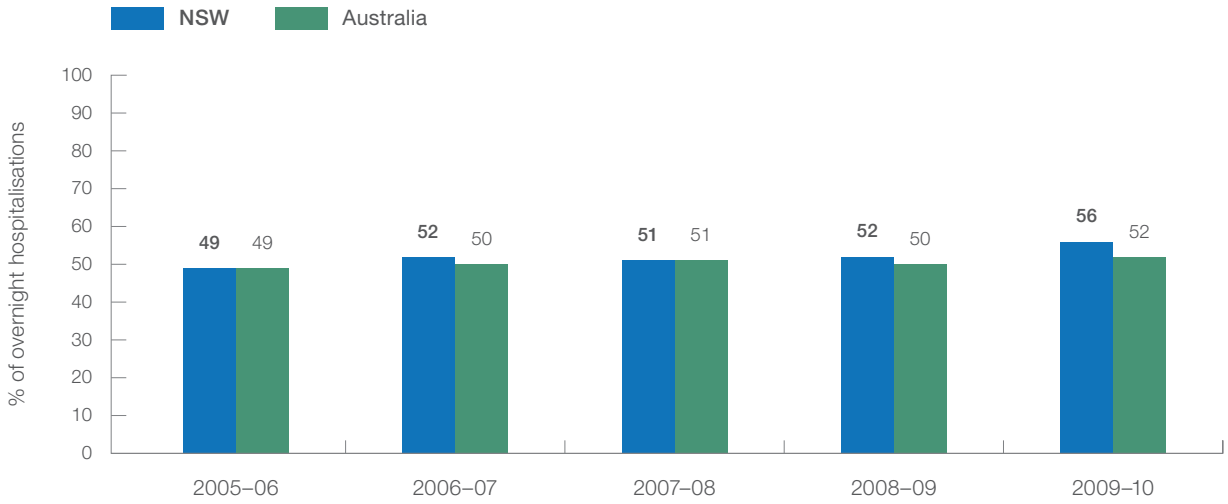
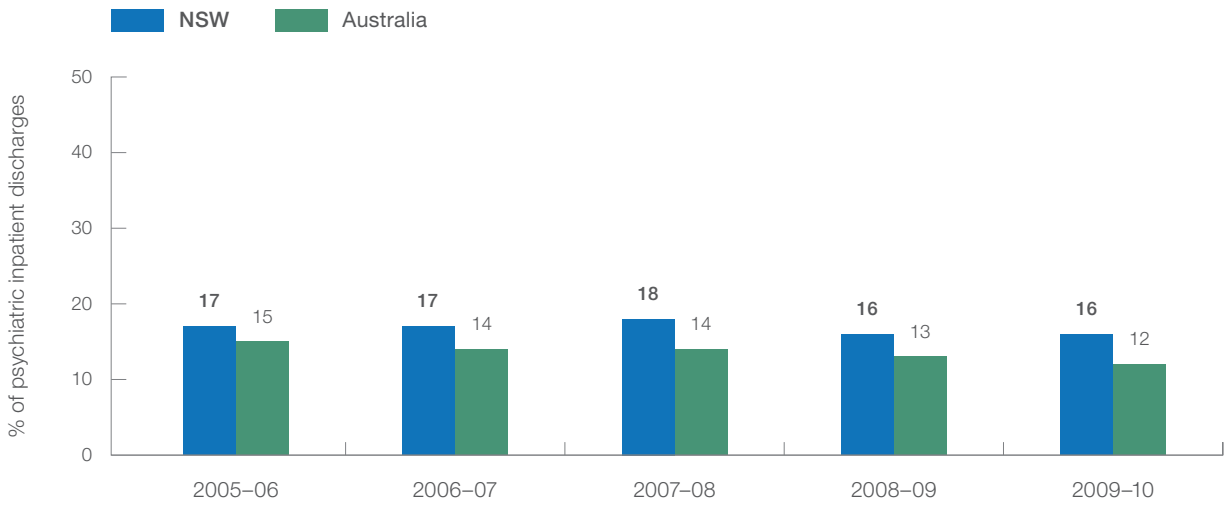


Figure 2.13: Readmissions to psychiatric inpatient services within 28 days of discharge, 2005–06 to 2009–10[#]



Effectiveness and appropriateness:
Women's healthcare

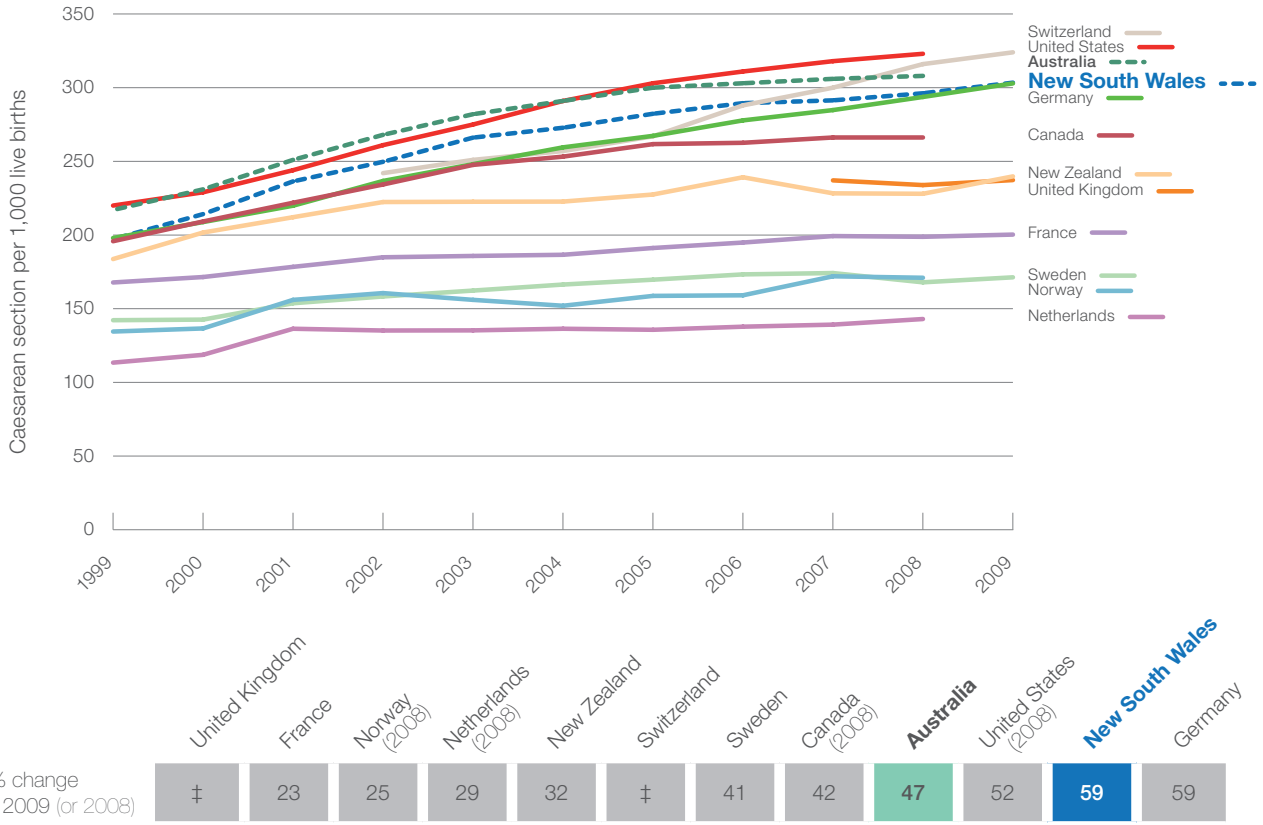
Caesarean section rates continue to increase in NSW

There have been longstanding concerns about the overuse of some procedures in healthcare such as Caesarean sections and hysterectomies.

A Caesarean section is the surgical delivery of a baby and is indicated when there is a significant risk to the health of the mother or baby from a vaginal delivery. Although a Caesarean section is appropriate for some mothers, the surgery involves risk and requires more resources than a vaginal delivery. In 2009, more than 30% of all live births in NSW were Caesareans. Between 1999 and 2009, there was a 59% increase in Caesarean section rates (Figure 2.14).

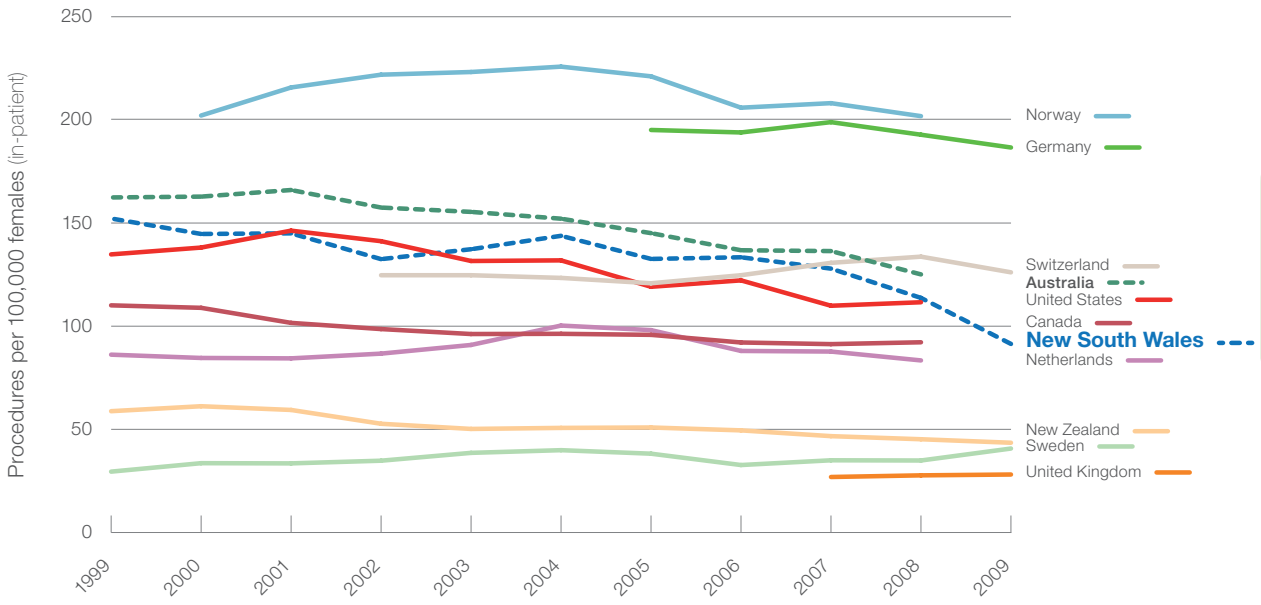
Hysterectomy is the surgical removal of the uterus. It is used to treat cancer, menorrhagia (heavy menstrual bleeding), chronic pelvic pain and uterine fibroids. There are a range of less invasive treatments available for non-cancer cases that involve fewer risks than surgery.[10] If a hysterectomy is performed in non-cancer cases, a vaginal procedure is recommended.[11] Therefore, greater use of alternative treatments should be reflected in a fall in vaginal hysterectomy rates.[#] Recent data show that vaginal hysterectomy rates in NSW are falling (Figure 2.15).

Figure 2.14: Caesarean sections per 1,000 live births, 1999 – 2009[¶]



(#) The proportion of vaginal vs abdominal have remained fairly constant over time in NSW.

Figure 2.15: Hysterectomy rates (vaginal procedures only), 1999 – 2009¶



(¶) OECD Health Data 2011 and NSW Admitted Patient Data Collection.
(‡) Suppressed due to truncated time series.

Access and timeliness

Getting services when and where needed

Ensuring people receive services when and where they need them is a central element of quality healthcare. Access and timeliness of healthcare are important because:

- Long-term disability or risk of death from acute conditions such as stroke and heart attack are greatly influenced by timeliness of treatment
- Prolonged waiting for certain procedures such as hip replacement and spinal surgery may reduce patients' quality of life, their productivity at work, and the likelihood of achieving good health outcomes
- If healthcare services and diagnostic test results are not available or not delivered in a timely way, patients can experience emotional distress, physical harm and higher treatment costs
- Waiting times can influence the way patients seek care, such as visiting a hospital emergency department rather than a GP
- Availability of strong community and primary care delivers better access to specialised care when needed and achieves better health outcomes, often at a lower cost
- Receiving reassurance that appropriate healthcare will be available when needed is very important to the people of NSW.

This chapter covers:

- Patient assessments of how easily they are able to access healthcare
- Waits for primary care and specialist appointments
- Cost-based barriers to access.

'Sicker adults' refers to people who are likely to have had significant direct experience of the healthcare system in the recent past. It includes people who met at least one of the following criteria:

- Described their overall health as fair or poor
- Received medical care in the previous year for a serious or chronic illness, injury or disability
- Had been hospitalised in the previous two years (for any reason other than childbirth)
- Had surgery in the previous two years.

What we learnt about NSW	How well does NSW perform? NSW performed *better* than*:	NSW performed *worse* than*:
More than nine in 10 sicker adults (94%) have a regular doctor	Canada United States Sweden	Netherlands Switzerland France Norway United Kingdom
Six in 10 sicker adults (60%) waited four weeks or less for a specialist appointment	Canada Norway	Switzerland United States Netherlands United Kingdom Germany New Zealand France
One in 10 sicker adults (10%) who needed out-of-hours care said it was very easy to access care without going to the emergency department (ED)	No countries	United Kingdom Norway Switzerland New Zealand
Around two in 10 sicker adults (17%) reported that concerns about costs discouraged them from visiting a doctor for a specific medical problem	United States	Sweden Canada United Kingdom Netherlands Norway France Switzerland Germany
Four in 10 sicker adults (42%) said they and their family had out-of-pocket healthcare costs of more than $1,000 (USD) in the previous year	No countries	United Kingdom Sweden France Netherlands Germany New Zealand Norway Canada Switzerland

* Statistical analyses suggest that NSW results were truly different from those in the countries indicated.

Access and timeliness: Primary care

Sicker adults in NSW have good access to primary care

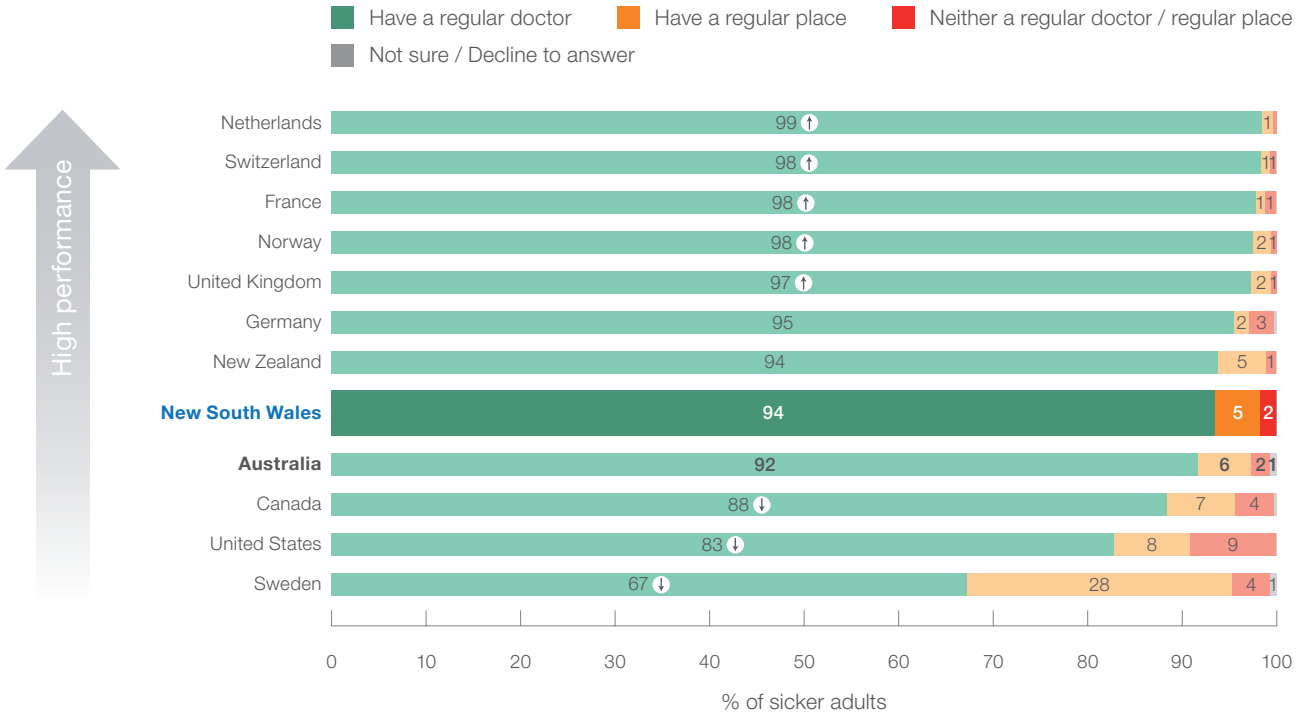
Having a regular doctor who provides and coordinates medical care increases access to healthcare services, bolsters satisfaction and improves health.[1]

In 2011, more than nine in 10 NSW sicker adults (94%) reported having one GP they usually see for their medical care. An additional 5% have a group health centre or clinic they usually go to for care (Figure 3.1).

More than six in 10 NSW sicker adults (63%) said that the last time they were sick they were able to get an appointment to see a doctor or nurse on the same day (46%) or the next day (17%) (Figure 3.2).

Almost four in 10 NSW sicker adults who needed care in the evening, on weekends or on holidays said it was very easy (10%) or somewhat easy (28%) to access medical care without going to the emergency department. Responses from sicker adults in the UK, Norway, Switzerland and New Zealand indicate that out-of-hours care is easier to access in those countries (Figure 3.3).

Figure 3.1: **Survey 2011** Is there one GP or GP practice you usually go to for your medical care?(Ω)



(Ω) The Commonwealth Fund's 2011 International Survey of Sicker Adults in Eleven Countries (fair / poor self-rated health OR chronic condition OR hospitalised or had surgery in previous two years). Percentages may not add up to 100 due to rounding, ↑ estimate almost certainly higher than NSW; ↓ estimate almost certainly lower than NSW.

Figure 3.2: **Survey 2011** Last time you were sick, how quickly could you get to see a doctor or a nurse? (Please do not include a visit to the hospital emergency room)[Ω]

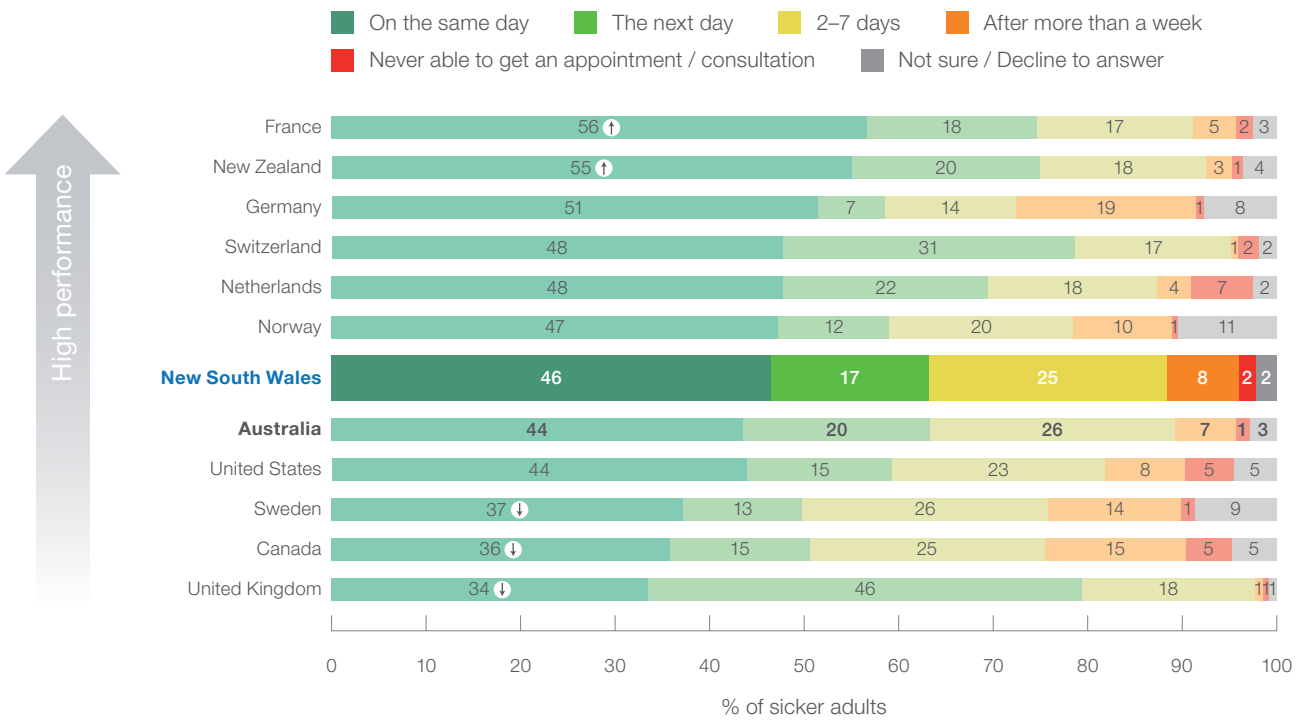
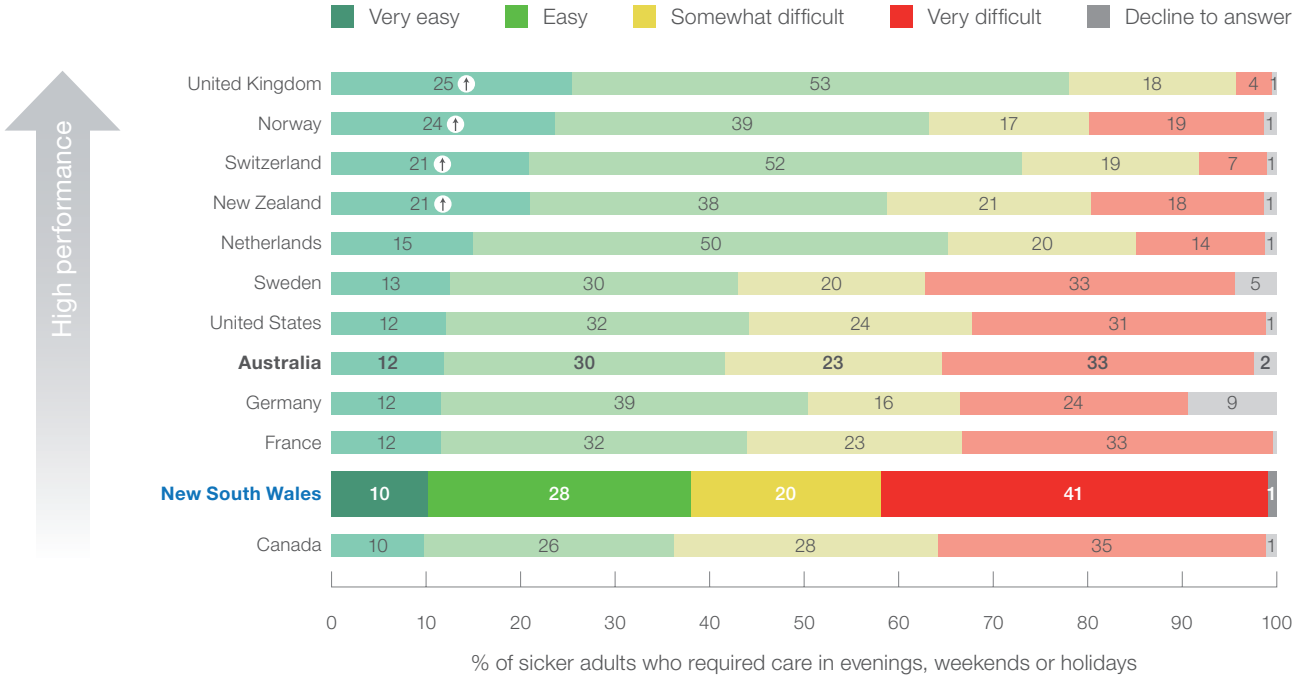


Figure 3.3: **Survey 2011** Last time when you needed medical care in the evening, on a weekend or on a holiday, how easy or difficult was it to get care without going to the emergency department?[Ω]



Access and timeliness: Specialist and ED care

Two in 10 sicker adults wait more than eight weeks for a specialist appointment

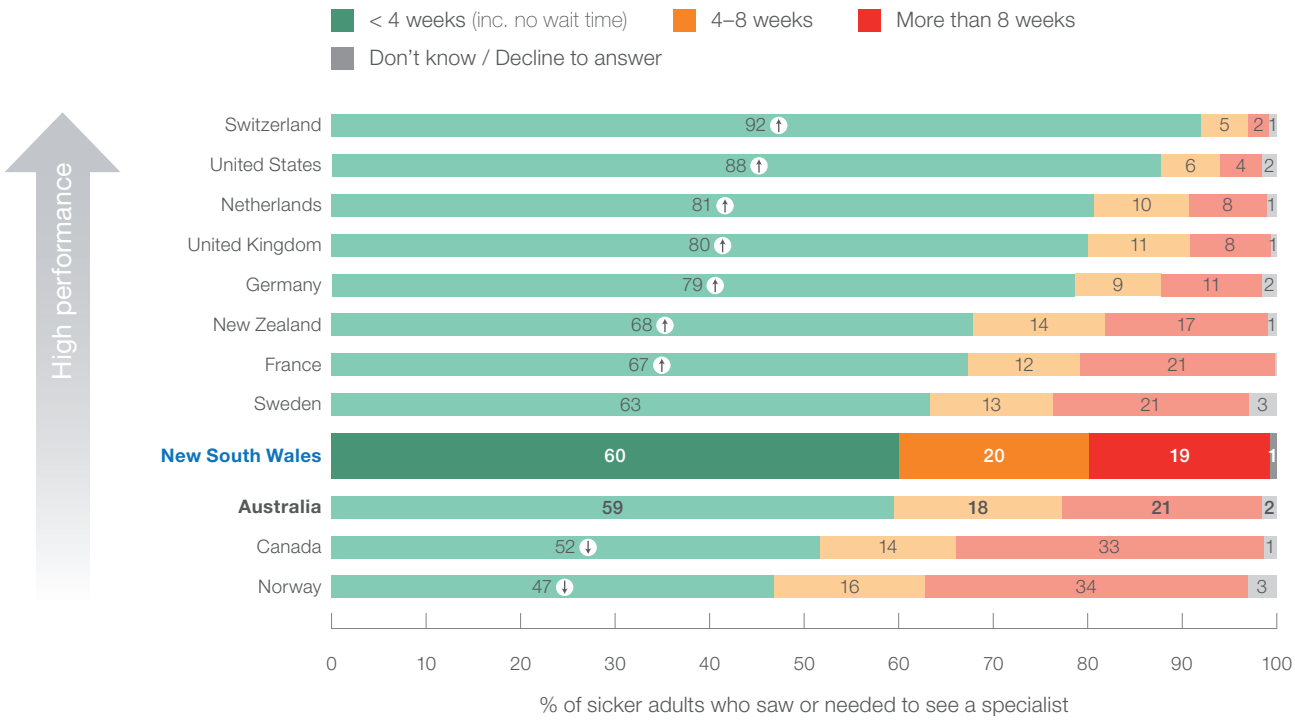
In 2011, six in 10 NSW sicker adults (60%) who needed to see a specialist in the past two years reported waiting fewer than four weeks for an appointment. About one in five (19%) reported waiting more than eight weeks (Figure 3.4).

Like many other jurisdictions, there are concerns in NSW that long waiting times in ED are exacerbated by patients having difficulties getting primary or community care.

In 2011, more than three in 10 NSW sicker adults (35%) who had used an ED in the previous two years reported that the condition prompting their most recent ED visit could have been treated at their regular general practice if it had been available. Sicker adults in the UK, France and New Zealand were less likely to say their ED visits could have been prevented with greater availability of primary care (Figure 3.5).

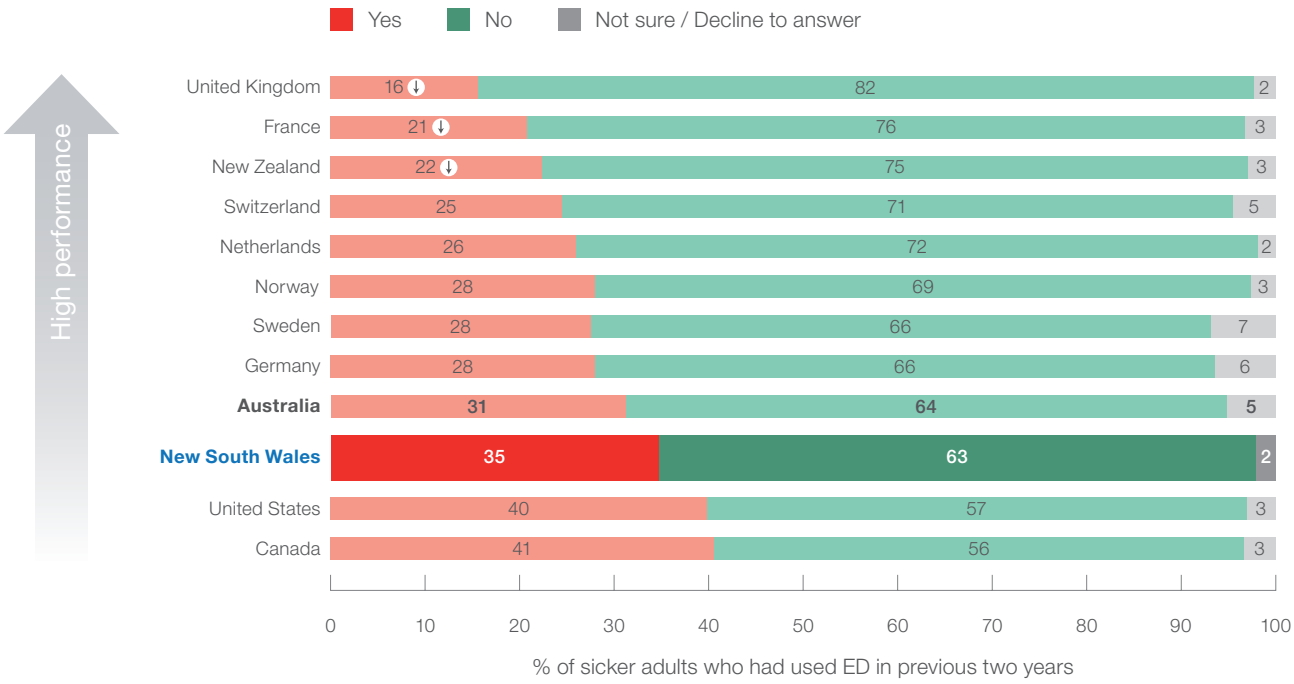
The Bureau releases quarterly reports on waiting times for planned surgery and emergency departments (ED).[2]

Figure 3.4: **Survey 2011** After you were advised to see, or decided to see, a specialist or consultant, how long did you have to wait for an appointment?(Ω)



(Ω) The Commonwealth Fund's 2011 International Survey of Sicker Adults in Eleven Countries (fair / poor self-rated health OR chronic condition OR hospitalised or had surgery in previous two years). Percentages may not add up to 100 due to rounding, ↑ estimate almost certainly higher than NSW; ↓ estimate almost certainly lower than NSW.

Figure 3.5: **Survey 2011** The last time you went to the hospital emergency department, was it for a condition that you thought could have been treated by your regular GP if he or she had been available?Ω



Access and timeliness: Barriers to healthcare

Cost is a barrier to care in NSW

Barriers to healthcare can be caused by a range of factors such as difficulties travelling, lack of health insurance coverage, limited availability of services, low health literacy and costs.

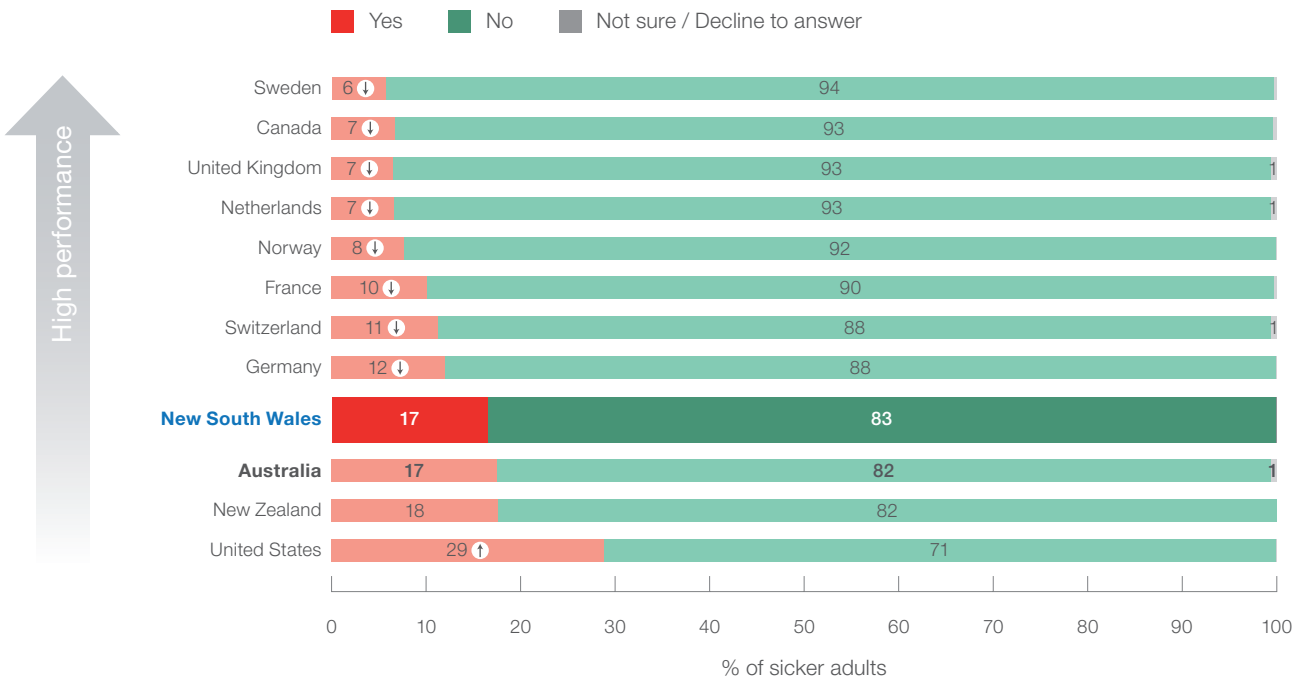
In terms of financial barriers, almost two in 10 NSW sicker adults (17%) said concerns about costs discouraged them from visiting a doctor for a specific medical problem, a higher proportion than in eight comparator countries (Figure 3.6).

Similarly, 16% of NSW sicker adults reported cost concerns prevented them filling a prescription or caused them to skip doses (Figure 3.7).

Almost two in 10 NSW sicker adults (19%) reported that, in the past two years, as a result of cost concerns they had skipped or did not get a medical test, treatment or follow-up that was recommended by a doctor (Figure 3.8).

In comparison with 10 countries, only the United States had a higher proportion of sicker adults reporting cost barriers to access doctors, medicines, tests and treatments.

Figure 3.6: **Survey 2011** Was there a time in the past year when you had a specific medical problem but did not visit a doctor because of cost?(Ω)



(Ω) The Commonwealth Fund's 2011 International Survey of Sicker Adults in Eleven Countries (fair / poor self-rated health OR chronic condition OR hospitalised or had surgery in previous two years). Percentages may not add up to 100 due to rounding, ↑ estimate almost certainly higher than NSW; ↓ estimate almost certainly lower than NSW.

Figure 3.7: **Survey 2011** Was there a time in the past year when you did not fill a prescription for medicine or skipped doses because of cost?Ω

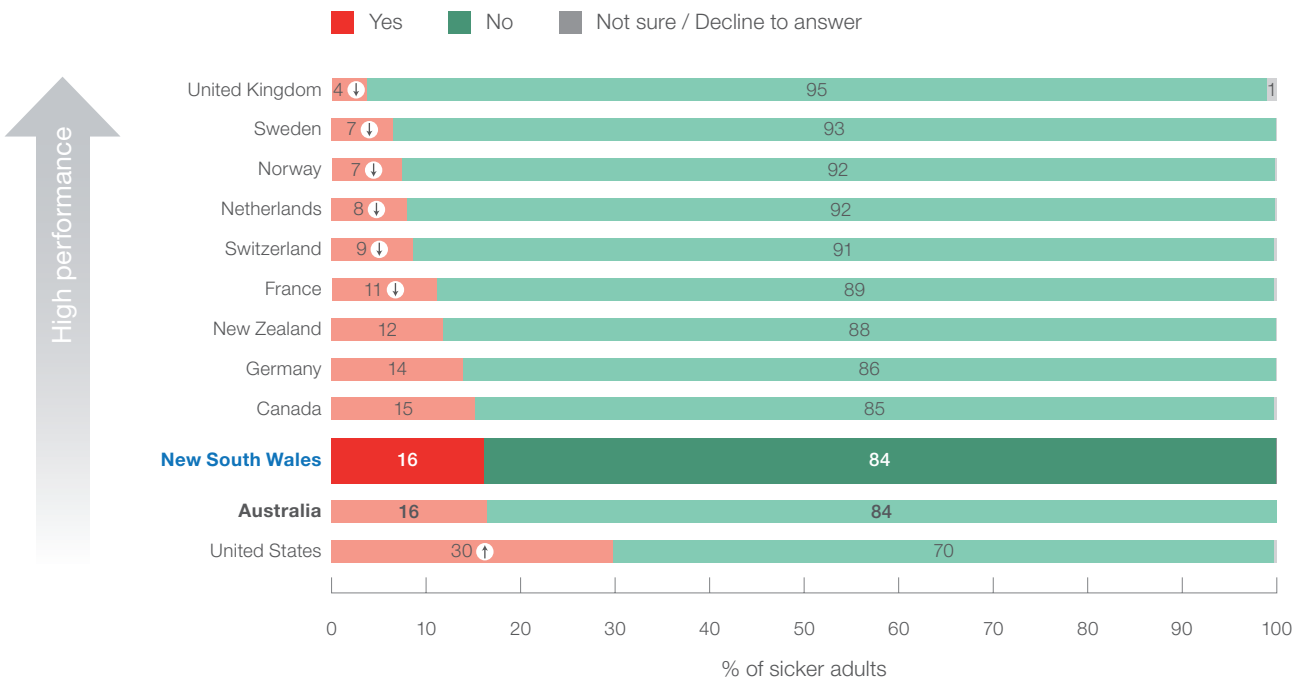
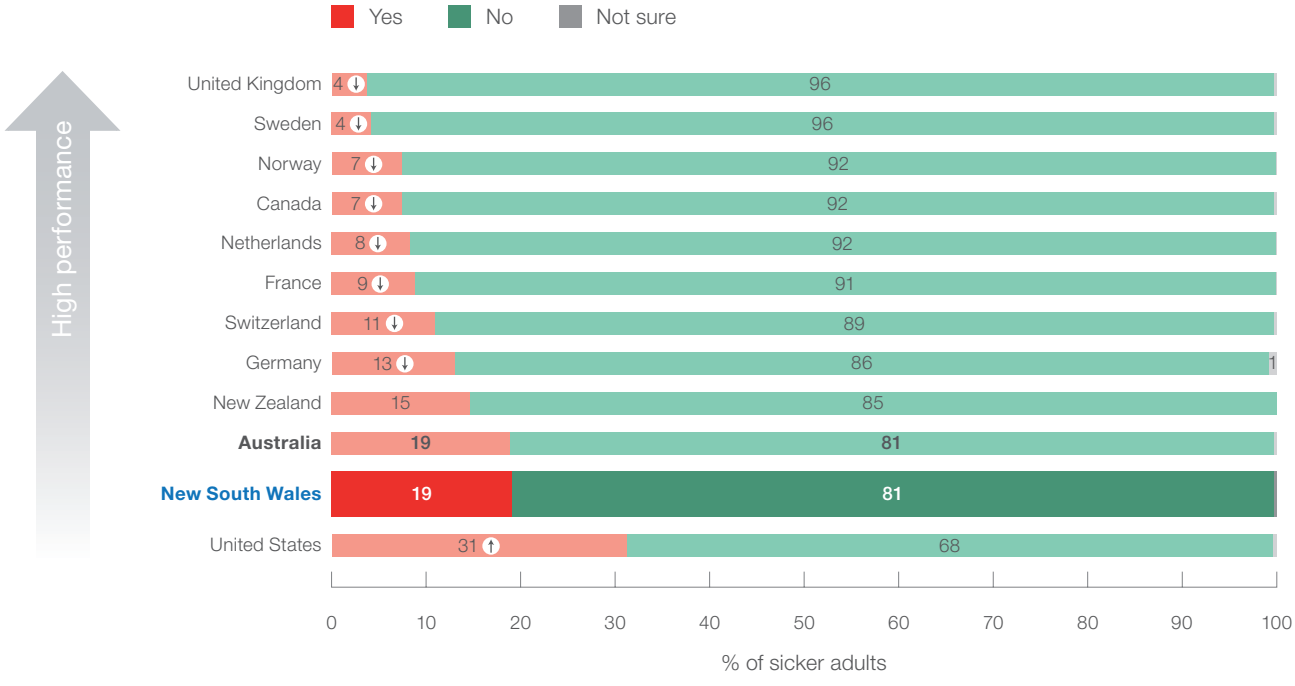


Figure 3.8: **Survey 2011** Was there a time in the past year when you skipped or did not get a medical test, treatment or follow-up that was recommended by a doctor because of cost?Ω



Access and timeliness: Costs of healthcare

Out-of-pocket healthcare costs are high in NSW

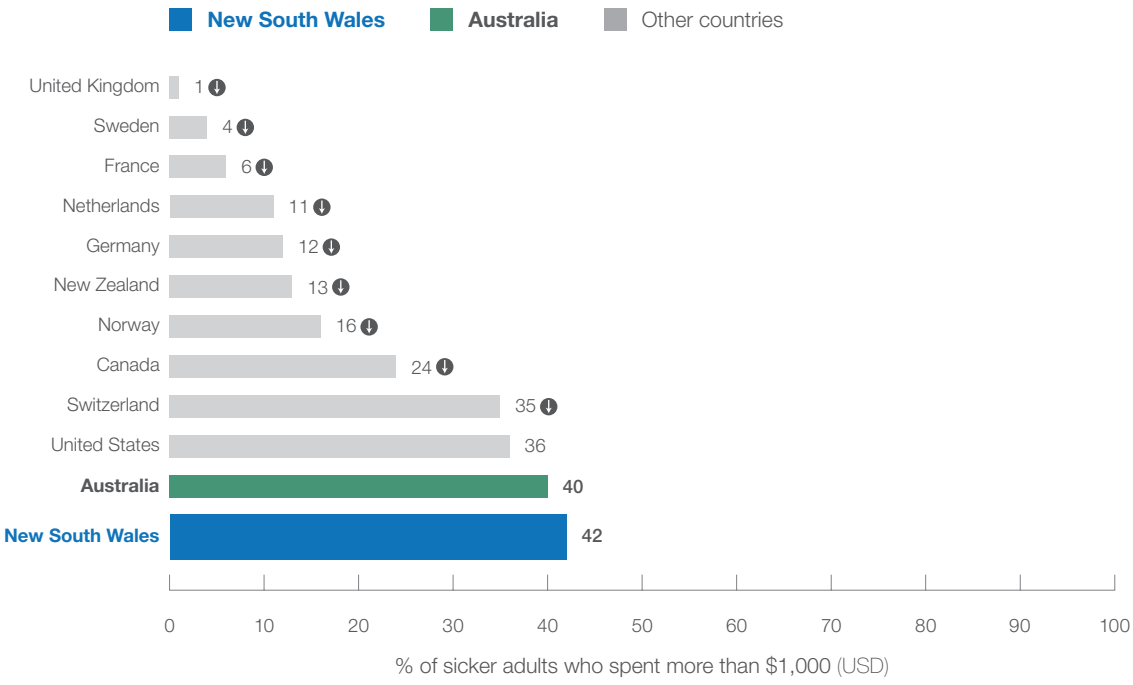
In Australia, out-of-pocket healthcare costs include charges for treatments and consultations not covered by Medicare or private health insurance and any differences between actual charges for healthcare and the amount that Medicare or private health insurance reimburses the patient.

While no public patient in NSW incurs out-of-pocket costs for hospitalisation, more than four in 10 NSW sicker adults (42%) said they and their family had out-of-pocket costs of more than $1,000 (USD) in the previous year for medical treatments or services not covered by Medicare or insurance. Statistical analysis shows that this proportion is almost certainly higher than that reported in nine comparator countries (Figure 3.9).

One in 10 NSW sicker adults (10%) reported they had serious problems paying, or were unable to pay, their medical bills in the past year (data not shown).

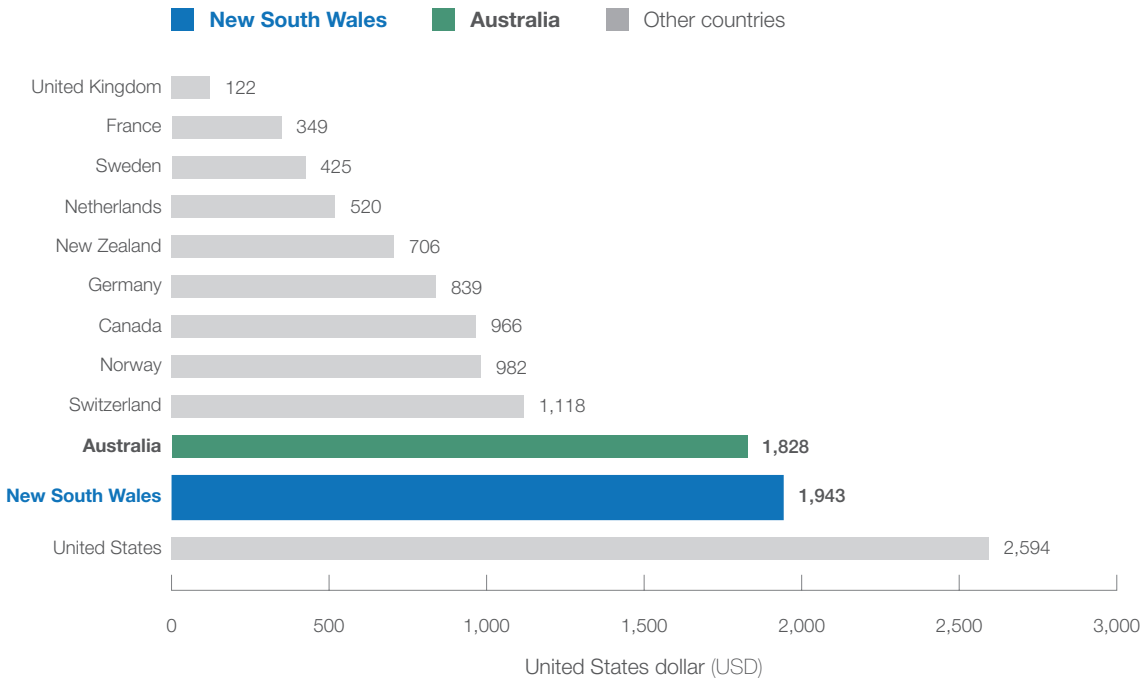
The average out-of-pocket costs among NSW sicker adults* and their families were about $2,000 (USD) in the past year. This was higher than reported spends in all other countries compared, except the United States (Figure 3.10).

Figure 3.9: **Survey 2011** In the past 12 months, about how much have you and your family spent out-of-pocket for medical treatments or services that were not covered by insurance? (percent of sicker adults who spent more than $1,000 USD)Ω



* Excludes sicker adults who did not know out-of-pocket spend.

Figure 3.10: **Survey 2011** In the past 12 months, about how much have you and your family spent out-of-pocket for medical treatments or services that were not covered by insurance? (average)[Ω¥]



(Ω) The Commonwealth Fund's 2011 International Survey of Sicker Adults in Eleven Countries (fair / poor self-rated health OR chronic condition OR hospitalised or had surgery in previous two years). Percentages may not add up to 100 due to rounding, ⓘ estimate almost certainly higher than NSW; ⓘ estimate almost certainly lower than NSW.

(¥) Excludes sicker adults who did not know out-of-pocket spend. USD calculated on the basis of purchase price parity and current prices.

Safety

Essential for quality and high performance

Safety is central to healthcare quality. It means avoiding medical error and eliminating unnecessary risk to patients.

In NSW between 1 July and 31 December 2009, healthcare staff made 64,767 clinical incident notifications to the Incident Management System. The most frequently reported incidents were for falls (13,137), issues associated with medication and intravenous fluids (10,793) and clinical management (10,082). The rate of serious incidents reported was 0.10 per 1,000 bed days – or 0.04% of all admissions.[1] The rate of reported incidents increased from 14.6 per 1,000 bed days in 2005–06 to 19.6 in 2008–09.[2]

Such reported incident data should be interpreted with care. While an increase in the rate of adverse events may seem to suggest deteriorating quality, it might actually represent an improvement culture. There may be greater willingness to report adverse events within a '*safety culture*' where people see opportunities to learn from and prevent future incidents. This, rather than a true increase in the incidence of adverse events, may be behind the higher numbers.

Survey data give a patient-eye view of safety incidents and processes in place to prevent them. In providing these data, however, patients may not have all the information needed to determine whether there has been a safety incident in their care. For example, they may be unaware of some errors, or may assume errors in situations with a poor medical outcome, when in fact no mistake was made.

This chapter covers:

- Patient-reported safety incidents
- Patient reports of medication errors
- Communication processes designed to improve safety.

'Sicker adults' refers to people who are likely to have had significant direct experience of the healthcare system in the recent past. It includes people who met at least one of the following criteria:

- Described their overall health as fair or poor
- Received medical care in the previous year for a serious or chronic illness, injury or disability
- Had been hospitalised in the previous two years (for any reason other than childbirth)
- Had surgery in the previous two years.

What we learnt about NSW	How well does NSW perform?	
	NSW performed *better* than*:	NSW performed *worse* than*:
Over six in 10 sicker adults (65%) had their medications reviewed and discussed with them in the past year	Netherlands Sweden France Norway	United Kingdom Switzerland
Seven in 10 sicker adults (70%) who were hospitalised or had surgery received a written plan for their care after discharge	Netherlands Norway Switzerland	United Kingdom United States
Around one in 10 of hospitalised sicker adults (13%) developed an infection during or shortly after their surgery or hospital stay	No countries	United States
Around one in 10 hospitalised sicker adults (9%) visited the ED or were readmitted to a hospital within a month of discharge as a result of complications that occurred during their recovery	No countries	Germany
Just over two in 10 sicker adults (21%) think a medical mistake, medication error or incorrect test result occurred in their care in the past two years	No countries	United Kingdom Switzerland France

* Statistical analyses suggest that NSW results were truly different from those in the countries indicated.

Managing for safety: Outcomes

One in five sicker adults reports a safety incident in their care

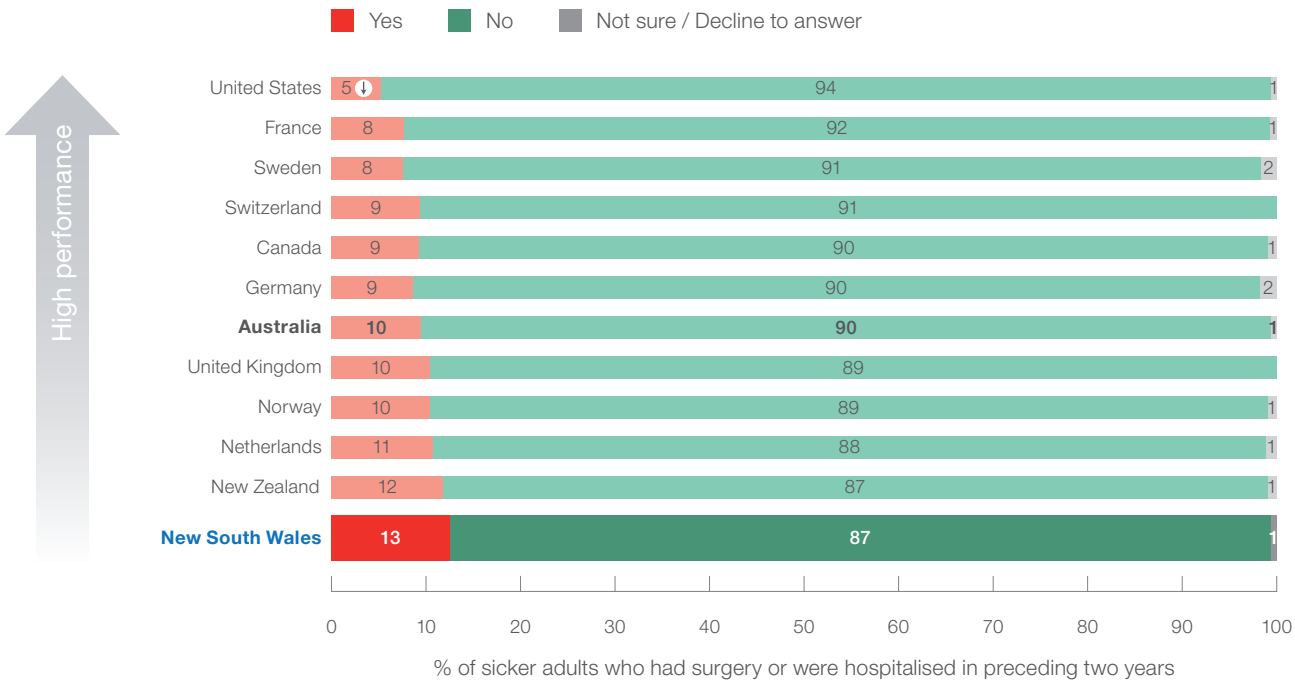
Safety is often measured in terms of ***'adverse events'***, which refer to incidents where healthcare treatment results in harm. Adverse events include infections, medication problems and falls that cause injuries.

Among NSW sicker adults who had surgery or were hospitalised in the past two years, one in 10 (13%) reported developing an infection during or shortly after their hospital stay. The NSW result was similar to most other countries surveyed, except the United States which almost certainly had a lower patient-reported infection rate (Figure 4.1).

In 2011, one in five sicker adults (21%) in NSW reported a medical mistake, medication error, or incorrect lab result had occurred in their care in the past two years. The United Kingdom, Switzerland and France recorded fewer mistakes or errors (Figure 4.2).

High readmission rates following surgery or hospitalisation can be an indicator of premature or inappropriate discharge, or inadequate levels of community and primary follow-up care. Patient-reported readmission rates in NSW were comparable to those in other countries surveyed, except Germany which had rates that statistical analyses indicate were lower (Figure 4.3).

Figure 4.1: **Survey 2011** Did you develop an infection during or shortly after your hospital stay or surgery?(Ω)



(Ω) The Commonwealth Fund's 2011 International Survey of Sicker Adults in Eleven Countries (fair / poor self-rated health OR chronic condition OR hospitalised or had surgery in previous two years). Percentages may not add up to 100 due to rounding, ⓘ estimate almost certainly higher than NSW; ⓘ estimate almost certainly lower than NSW.

Figure 4.2: **Survey 2011** In the past two years, do you believe any of the following occurred: a medical mistake or medication error or incorrect test result?Ω

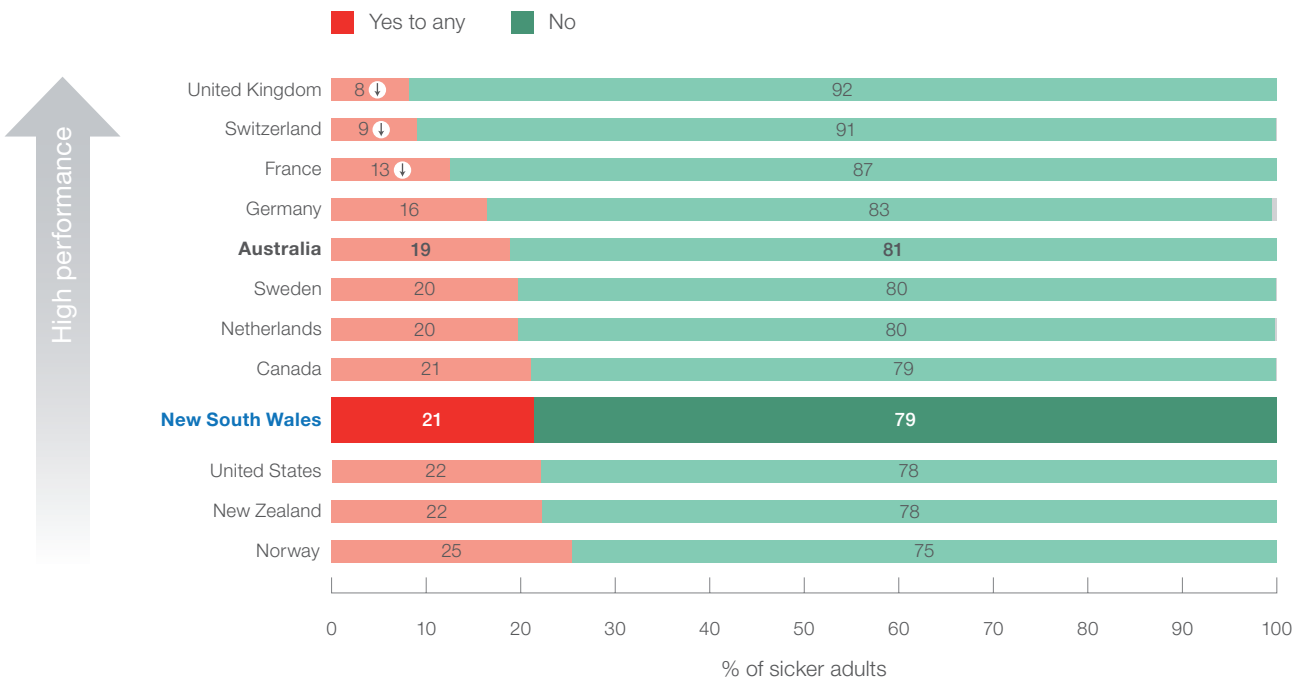
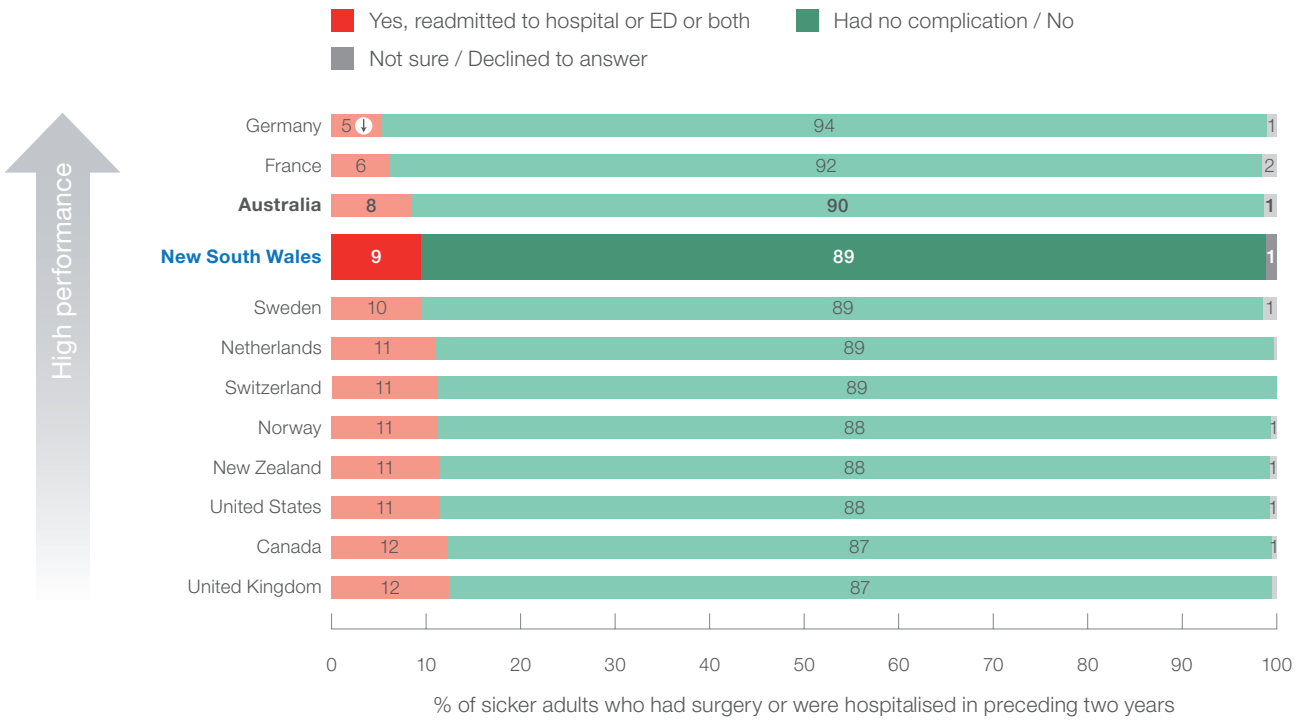


Figure 4.3: **Survey 2011** After you were discharged, were you readmitted to a hospital or did you have to go to an ED within a month as a result of complications that occurred during your recovery?Ω



Managing for safety: Medications

Most sicker adults received information about safe use of medicines

Medicines are the most commonly provided healthcare treatment and are associated with a higher incidence of errors and adverse events than other interventions.[3] Many medication-related adverse events are potentially avoidable.

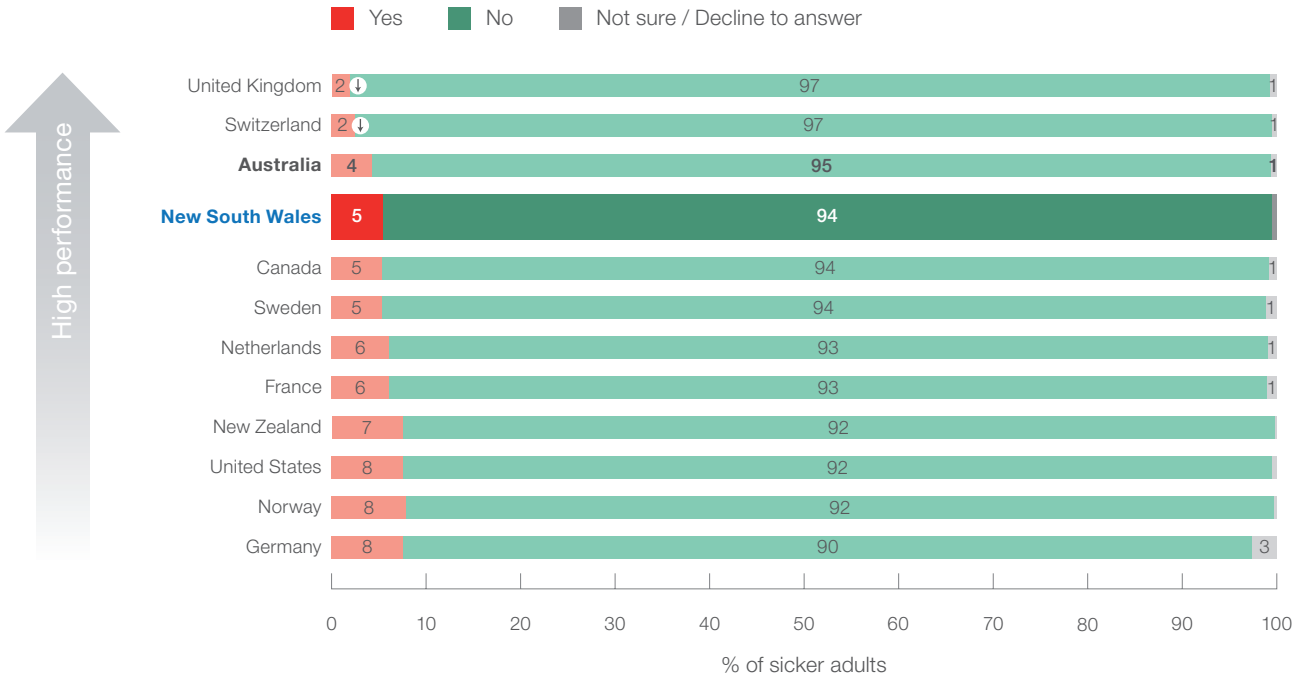
In 2011, 5% of sicker adults in NSW said they had been given the wrong medicine or wrong dose either at a pharmacy or while hospitalised in the past two years (Figure 4.4).

Most NSW sicker adults (75%) reported taking one or more prescription medications. Almost one in 10 (8%) of this group reported a negative reaction to a medicine in the past two years that resulted in them going to hospital (data not shown).

To minimise adverse medication events, patients taking prescription medicine should be given an up-to-date list of their medications and be provided with information about appropriate use and potential side effects.

In 2011, more than six in 10 NSW sicker adults (65%) reported having their medications reviewed in the past year. NSW does significantly better than four countries, but not as well as the United Kingdom and Switzerland (Figure 4.5). More than six in 10 (66%) were given a written list of their prescribed medications (Figure 4.6).

Figure 4.4: **Survey 2011** In the past two years, have you ever been given the wrong medicine or wrong dose at a pharmacy or while hospitalised?(Ω)



(Ω) The Commonwealth Fund's 2011 International Survey of Sicker Adults in Eleven Countries (fair / poor self-rated health OR chronic condition OR hospitalised or had surgery in previous two years). Percentages may not add up to 100 due to rounding, ⇧ estimate almost certainly higher than NSW; ⇩ estimate almost certainly lower than NSW.

Figure 4.5: **Survey 2011** In the past year, has a pharmacist or any doctor reviewed and discussed all the different medicines you are using?[Ω]

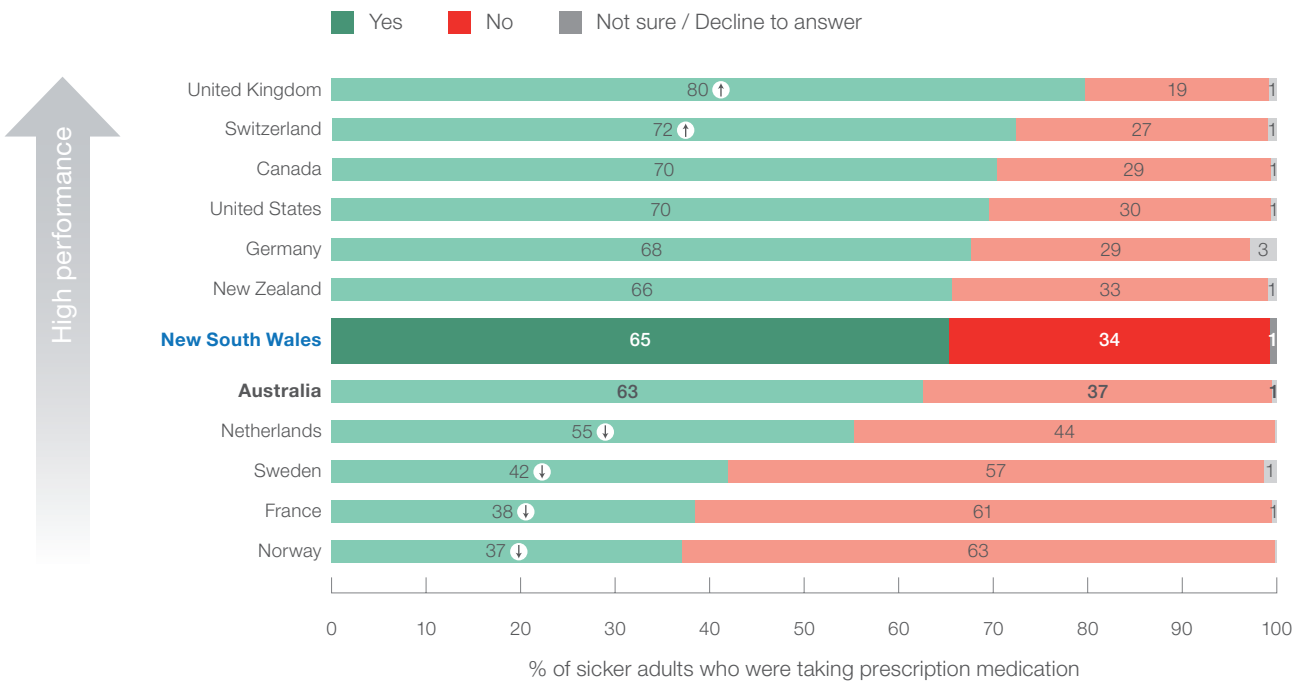
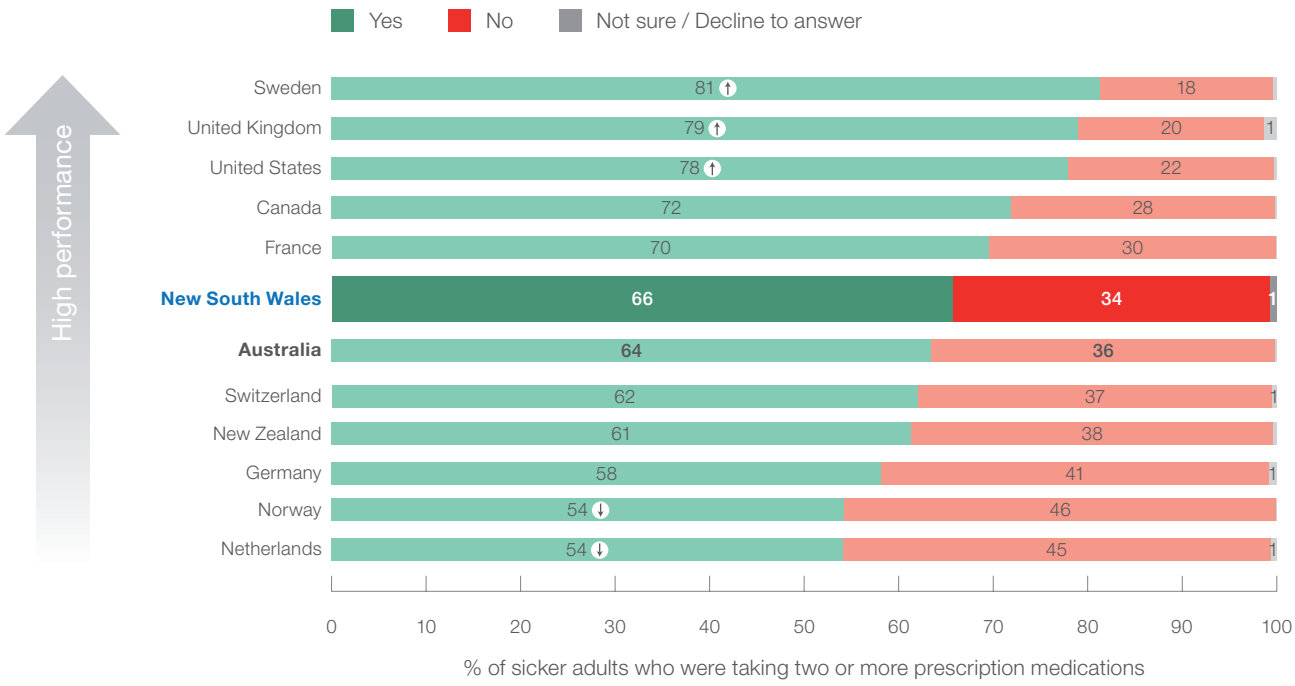


Figure 4.6: **Survey 2011** Do you have a written list of all the medications you are currently taking?[Ω]



Managing for safety: Communication processes

One in four hospitalised patients were not given post-discharge care plans

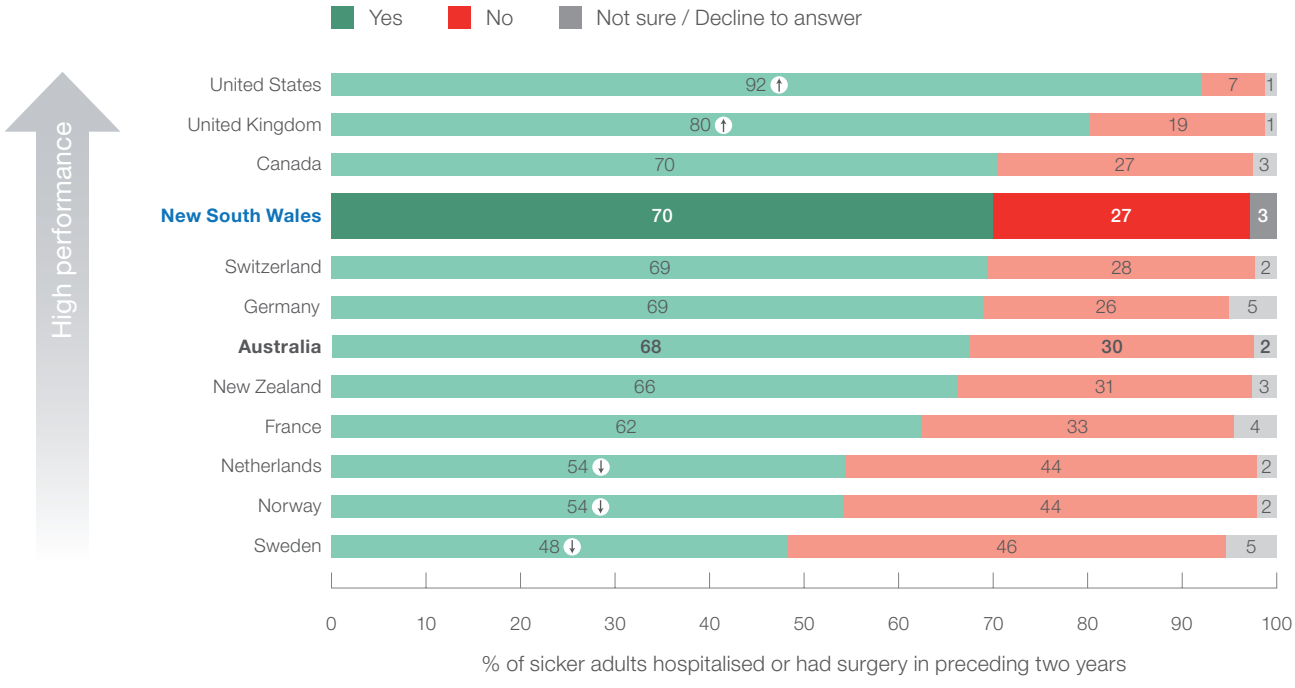
High-quality healthcare requires clear and effective communication between healthcare professionals, their patients and carers. For patients, verbal and written health information improves both knowledge and satisfaction.[4]

In 2011, most (70%) NSW sicker adults who were hospitalised or had surgery in the previous two years were given a written plan for care after discharge. NSW did better than the Netherlands, Norway and Sweden on this measure, but was outperformed by the United States and the United Kingdom (Figure 4.7).

Almost one in 10 sicker NSW adults (8%) who had a diagnostic test experienced delays in being notified about abnormal test results (Figure 4.8). Almost one in 20 (4%) of those who had a test said they were given incorrect results (data not shown).

One in six NSW sicker adults (15%) reported occasions when healthcare professionals had failed to share with each other important information about their medical history or treatment (Figure 4.9).

Figure 4.7: **Survey 2011** After hospitalisation or surgery, did the hospital staff provide you with a written plan for your care after discharge?(Ω)



(Ω) The Commonwealth Fund's 2011 International Survey of Sicker Adults in Eleven Countries (fair / poor self-rated health OR chronic condition OR hospitalised or had surgery in previous two years). Percentages may not add up to 100 due to rounding, ↑ estimate almost certainly higher than NSW; ↓ estimate almost certainly lower than NSW.

Figure 4.8: **Survey 2011** In the past two years, have you experienced delays in being notified about abnormal test results?[Ω]

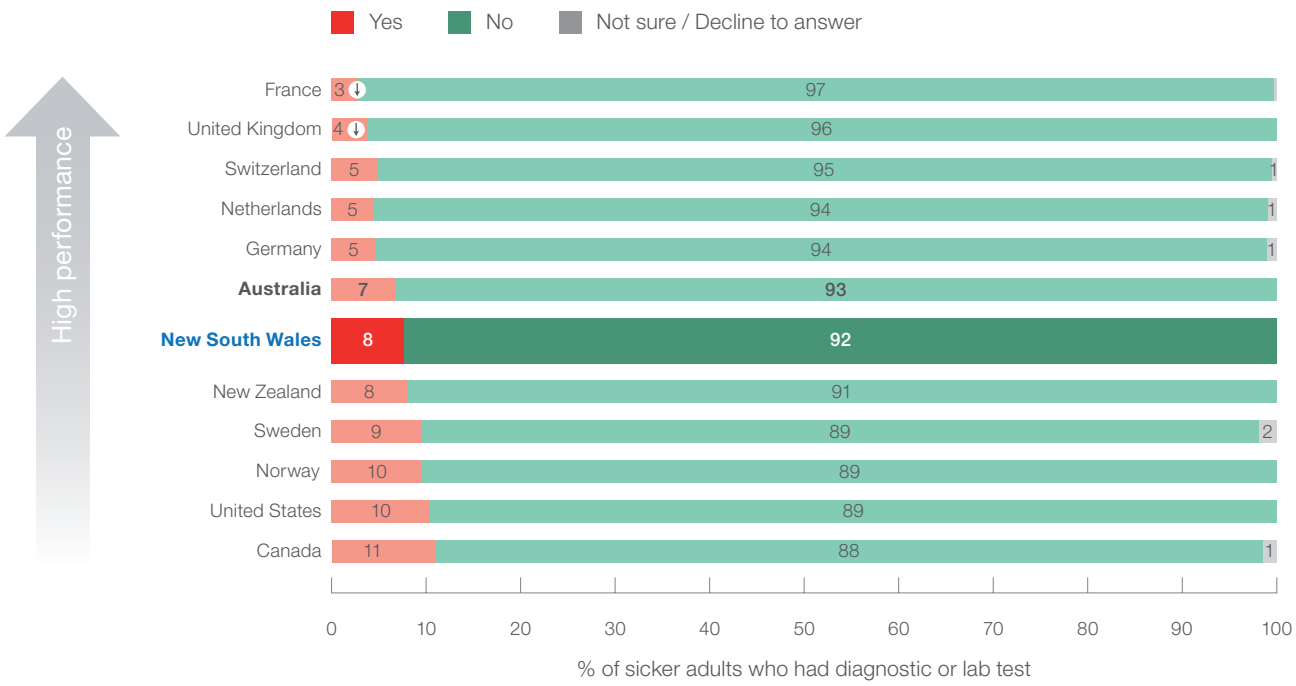
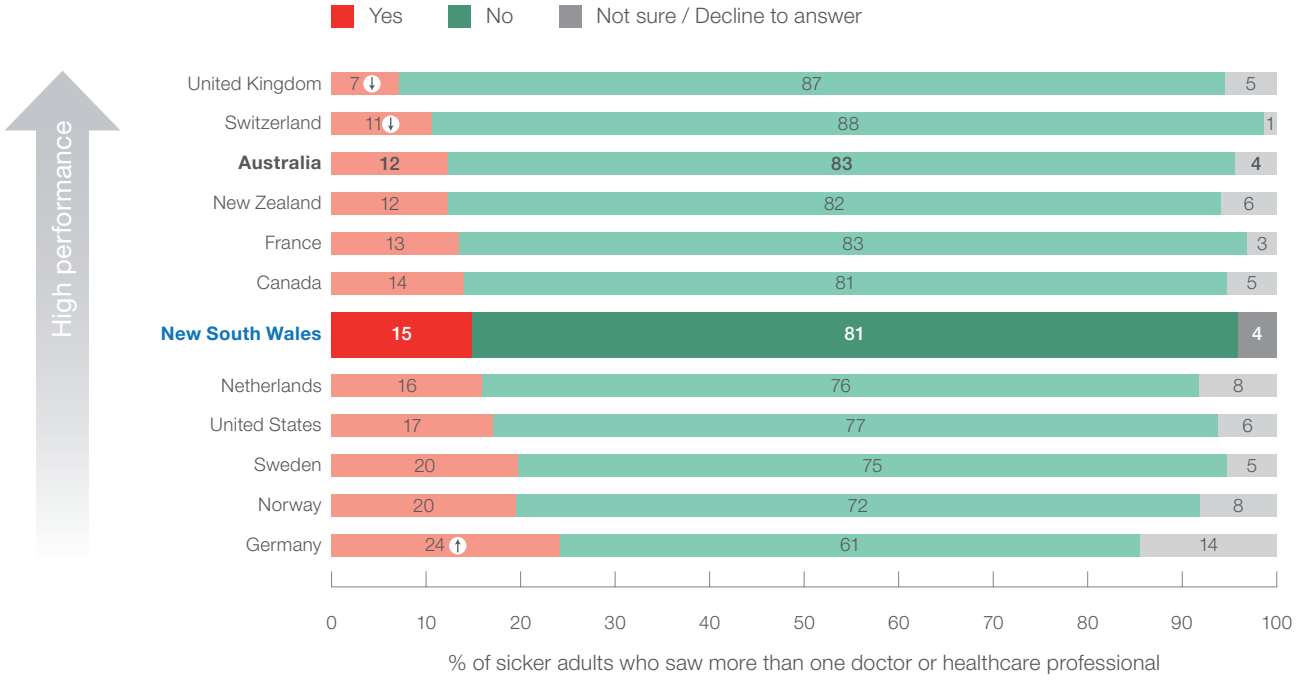


Figure 4.9: **Survey 2011** In the past two years, was there ever a time when doctors or other healthcare professionals failed to share important information about your medical history or treatment with each other?[Ω]



Person centredness

Responsiveness, respect and reliability – putting patients, carers and the community at the heart of healthcare

Person centredness means that patients, families, carers and the community participate with healthcare providers in achieving a high-performing healthcare system.

At a day-to-day level, person centredness places patients at the heart of medical decisions and treatment; and is about effective relationships between patients, their families and healthcare professionals.

These relationships are *"grounded in strong communication and trust, highlighted by clinicians and patients engaging in a two-way dialogue, sharing information, exploring patients' values and preferences, and helping patients and families make clinical decisions."*[1]

At a planning level, it means positively involving people in efforts to improve the healthcare system's performance. For example, patients can offer their views on the system and help set priorities to make sure healthcare policy, management and practice respond to the needs, concerns and expectations of the community.

Person centredness therefore encompasses care which: is respectful; provides emotional support, physical comfort, continuity, information and communication; is accessible, coordinated and involves family and carers.[2]

Evidence shows that person centredness enhances care experiences and improves outcomes, safety, costs and appropriateness of care.[3]

This chapter covers sicker adults' views on:

- Communication, including how information is shared
- How engaged they are in discussions and decision-making about their care
- Co-ordination of their care
- Whether they have a ***'medical home'*** (that is, whether they have a regular doctor or place of care which is accessible, knows them and helps coordinate care).

'Sicker adults' refers to people who are likely to have had significant direct experience of the healthcare system in the recent past. It includes people who met at least one of the following criteria:

- Described their overall health as fair or poor
- Received medical care in the previous year for a serious or chronic illness, injury or disability
- Had been hospitalised in the previous two years (for any reason other than childbirth)
- Had surgery in the previous two years.

What we learnt about NSW	How well does NSW perform?	
	NSW performed ***better*** than*:	NSW performed ***worse*** than*:
Three in 10 sicker adults (30%) rated the quality of healthcare they received as excellent	Sweden Switzerland France Netherlands Germany	New Zealand
Seven in 10 sicker adults (71%) reported that the GP or practice staff they saw always explained things in a way that was easy to understand	Sweden Norway	France
More than one in 10 sicker adults with a chronic condition (15%) said they were hospitalised or visited the ED in the previous year because of it	France Netherlands Norway	United Kingdom Switzerland
Around one-third of sicker adults (31%) who received care from multiple doctors, said someone in their GP practice always helped coordinate their care	Sweden France	United Kingdom United States Canada Switzerland Norway New Zealand
Among sicker adults hospitalised, seven in 10 (70%) said their GP seemed informed about the care they received	Sweden	United States Switzerland United Kingdom France Netherlands
Just over half of sicker adults (52%) reported having a ***'medical home'***	Sweden	United Kingdom Switzerland New Zealand

* Statistical analyses suggest that NSW results were truly different from those in the countries indicated.

Patient views on quality of healthcare

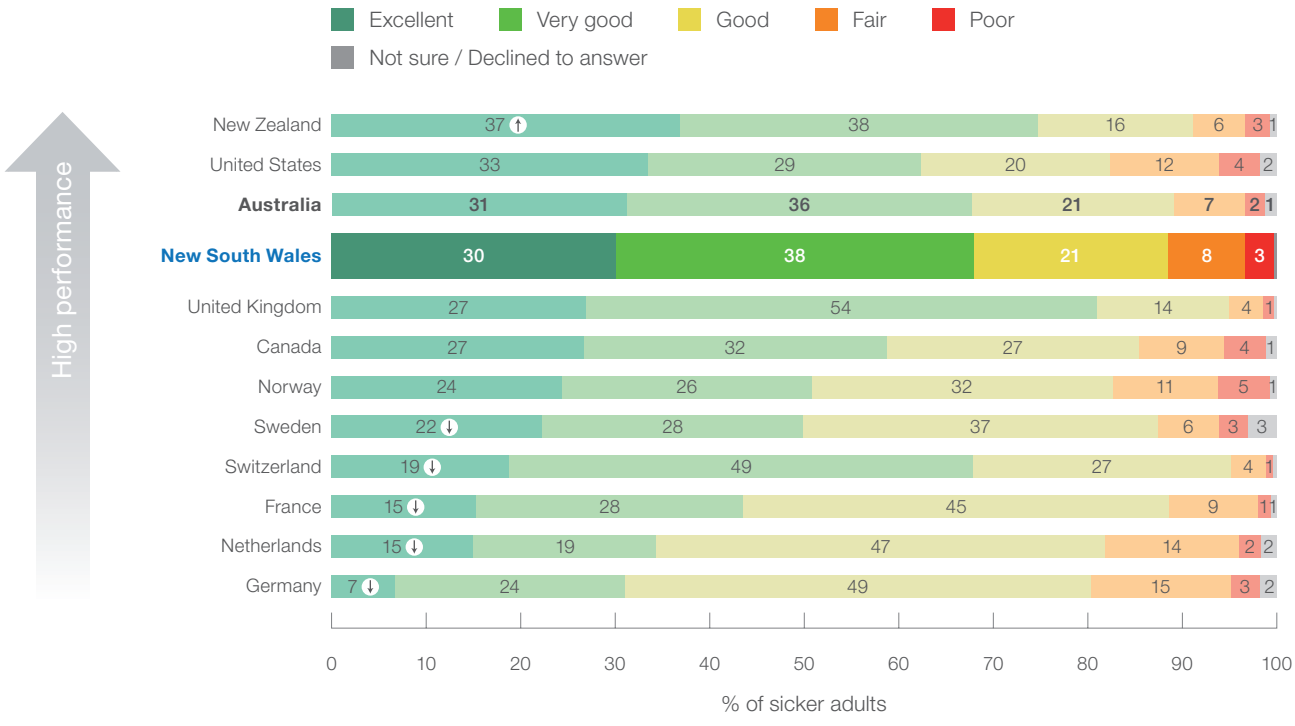
Seven in 10 sicker adults rate quality of healthcare as excellent or very good

Regular monitoring of patient experiences and public perceptions can be a way to measure healthcare quality. It can guide efforts to improve responsiveness of healthcare services.

In 2011, most NSW sicker adults (68%) rated the quality of medical care received in the past year as excellent (30%) or very good (38%). NSW had a higher proportion of excellent ratings than Sweden, Switzerland, France, Netherlands, and Germany, and was outperformed only by New Zealand (Figure 5.1).

In NSW, the percentage of sicker adults who rated their care as excellent did not vary across subgroups based on region or sex. However, older sicker adults (aged 65+ years) were more likely to offer an excellent rating than those in younger age groups (Figure 5.2).

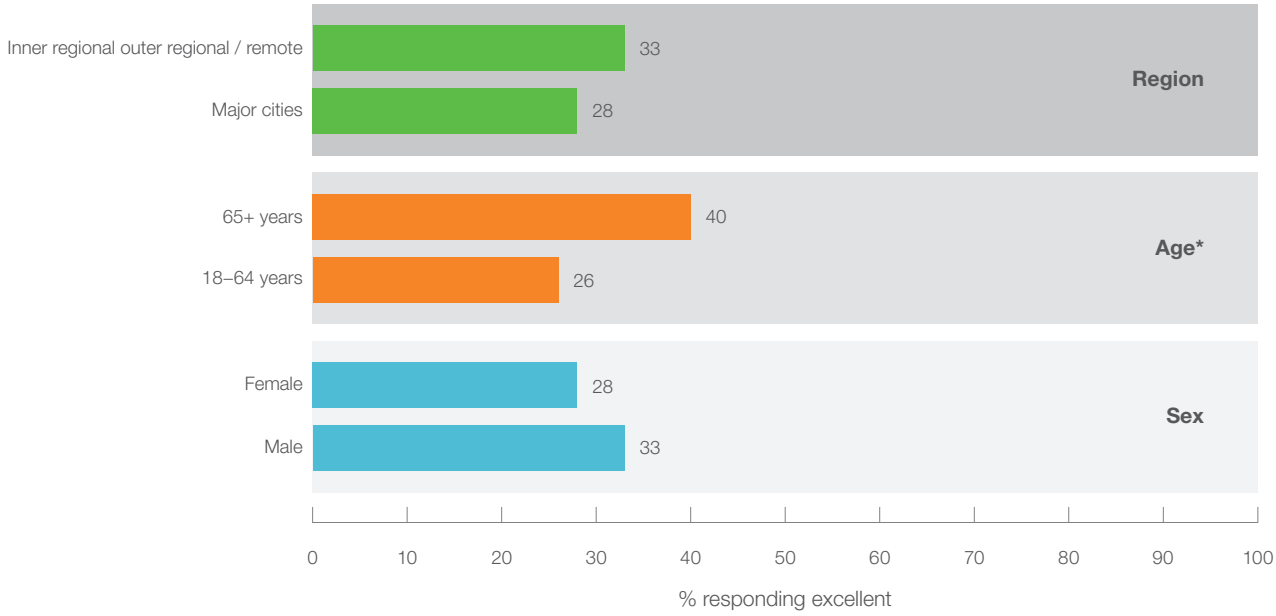
Figure 5.1: **Survey 2011** Overall, how do you rate the quality of medical care that you have received in the past 12 months?(Ω)



(Ω) The Commonwealth Fund's 2011 International Survey of Sicker Adults in Eleven Countries (fair / poor self-rated health OR chronic condition OR hospitalised or had surgery in previous two years). Percentages may not add up to 100 due to rounding, (↑) estimate almost certainly higher than NSW; (↓) estimate almost certainly lower than NSW.

(*) Statistical analyses suggest results almost certainly differed.

Figure 5.2: **Survey 2011** Overall, how do you rate the quality of medical care that you have received in the past 12 months?[Ω] NSW



Communicating with patients

Sicker adults report good communication with regular doctors

Patients want to engage with healthcare professionals who have clinical knowledge and skills and are good communicators. Clear and active communication between patients and the healthcare professionals caring for them has a positive effect on health and wellbeing.

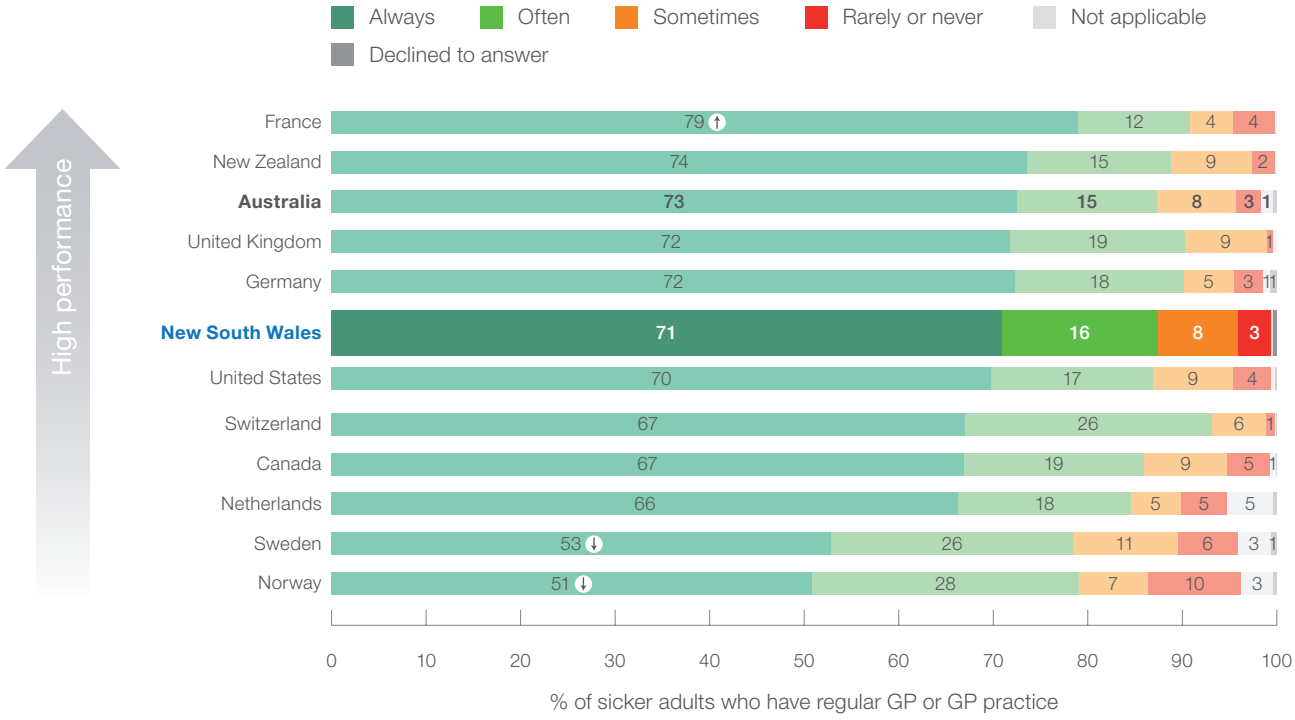
In 2011, nine in 10 NSW sicker adults (87%) reported that the GP or practice staff they saw *always* (71%) or *often* (16%) explained things in a way that was easy to understand (Figure 5.3).

Among sicker adults who had called their GP practice with a medical question or concern, 51% said they *always* got an answer on the same day and 24% said they *often* got an answer on the same day (data not shown).

Seven in 10 NSW sicker adults (71%) reported that when they needed care or treatment, their GP *always* (57%) or *often* (14%), encouraged them to ask questions (Figure 5.4).

When asked a similar question about specialist doctors, 79% of sicker adults in NSW reported that he or she *always* (62%) or *often* (17%) gave them an opportunity to ask questions about recommended treatment (Figure 5.5).

Figure 5.3: **Survey 2011** When you receive care or treatment, how often does your GP or someone in the GP's practice explain things in a way that is easy to understand?(Ω)



(Ω) The Commonwealth Fund's 2011 International Survey of Sicker Adults in Eleven Countries (fair / poor self-rated health OR chronic condition OR hospitalised or had surgery in previous two years). Percentages may not add up to 100 due to rounding, ↑ estimate almost certainly higher than NSW; ↓ estimate almost certainly lower than NSW.

Figure 5.4: **Survey 2011** When you receive care or treatment, how often does your GP or someone in the GP's practice encourage you to ask questions?Ω

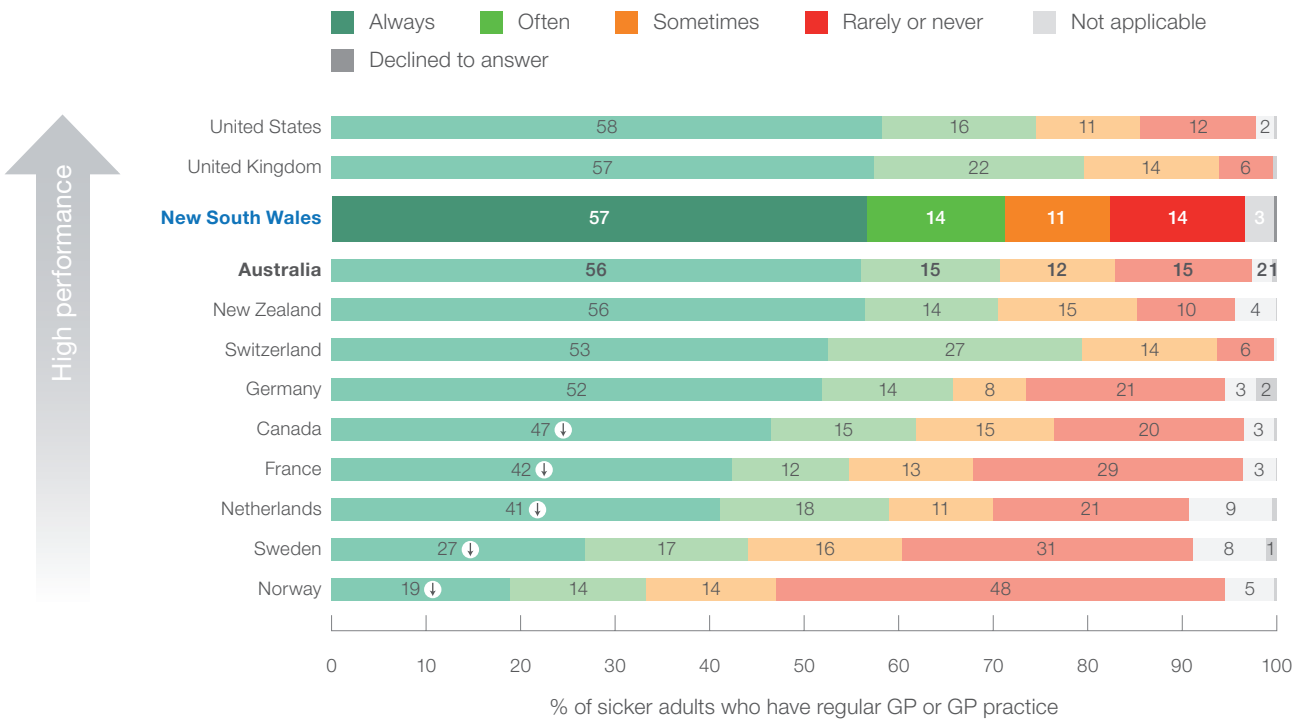
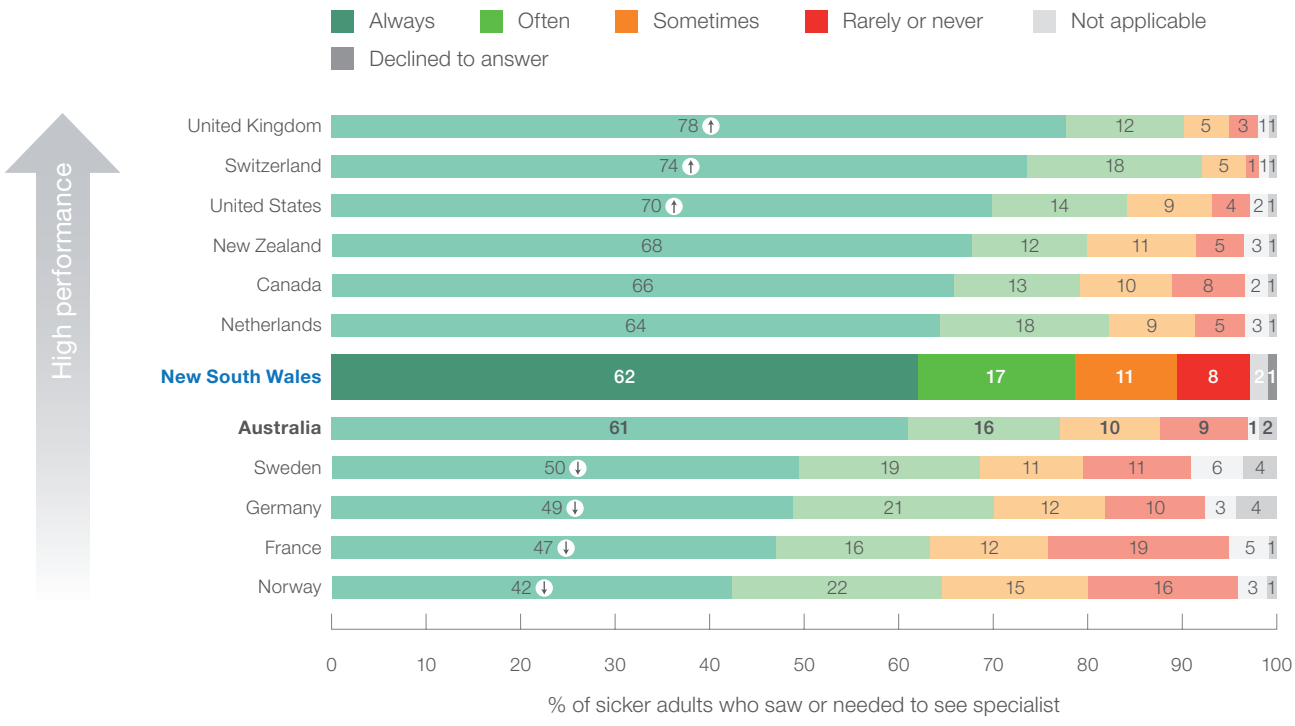


Figure 5.5: **Survey 2011** When you have received care or treatment from specialists, how often did they give you an opportunity to ask questions about recommended treatment?Ω



Patient engagement

Sicker adults are engaged in their own care

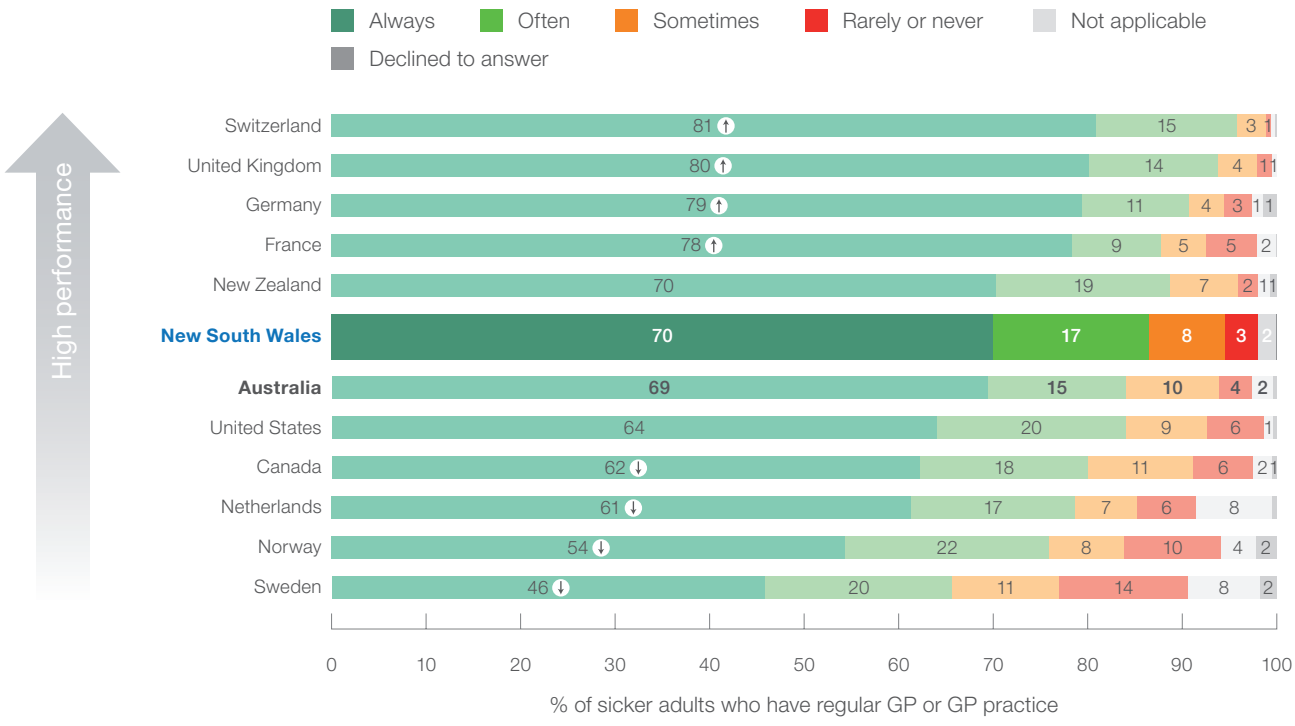
Most patients want to be given information about their health and treatment options, and for clinicians to take account of their preferences. Some wish to be an active participant in the decision-making process. They also want healthcare workers to know them well and give them enough time and attention.

In 2011, seven in 10 NSW sicker adults (70%) said their GP ***always*** knew important information about their medical history (Figure 5.6).

When asked whether staff at the GP practice spent enough time with them, seven in 10 NSW sicker adults (69%) indicated that was always the case. No country significantly outperformed NSW on this measure (Figure 5.7).

In terms of specialist care, about six in 10 NSW sicker adults (64%) reported that they were ***always*** involved, as much as they wanted to be, in decisions about treatment and care. New Zealand is the only country with a truly higher percentage (Figure 5.8).

Figure 5.6: **Survey 2011** When you receive care or treatment, does your GP or someone in the GP's practice know important information about your medical history?(Ω)



(Ω) The Commonwealth Fund's 2011 International Survey of Sicker Adults in Eleven Countries (fair / poor self-rated health OR chronic condition OR hospitalised or had surgery in previous two years). Percentages may not add up to 100 due to rounding, ↑ estimate almost certainly higher than NSW; ↓ estimate almost certainly lower than NSW.

Figure 5.7: **Survey 2011** When you receive care or treatment, does your GP or someone in the GP's practice spend enough time with you?Ω

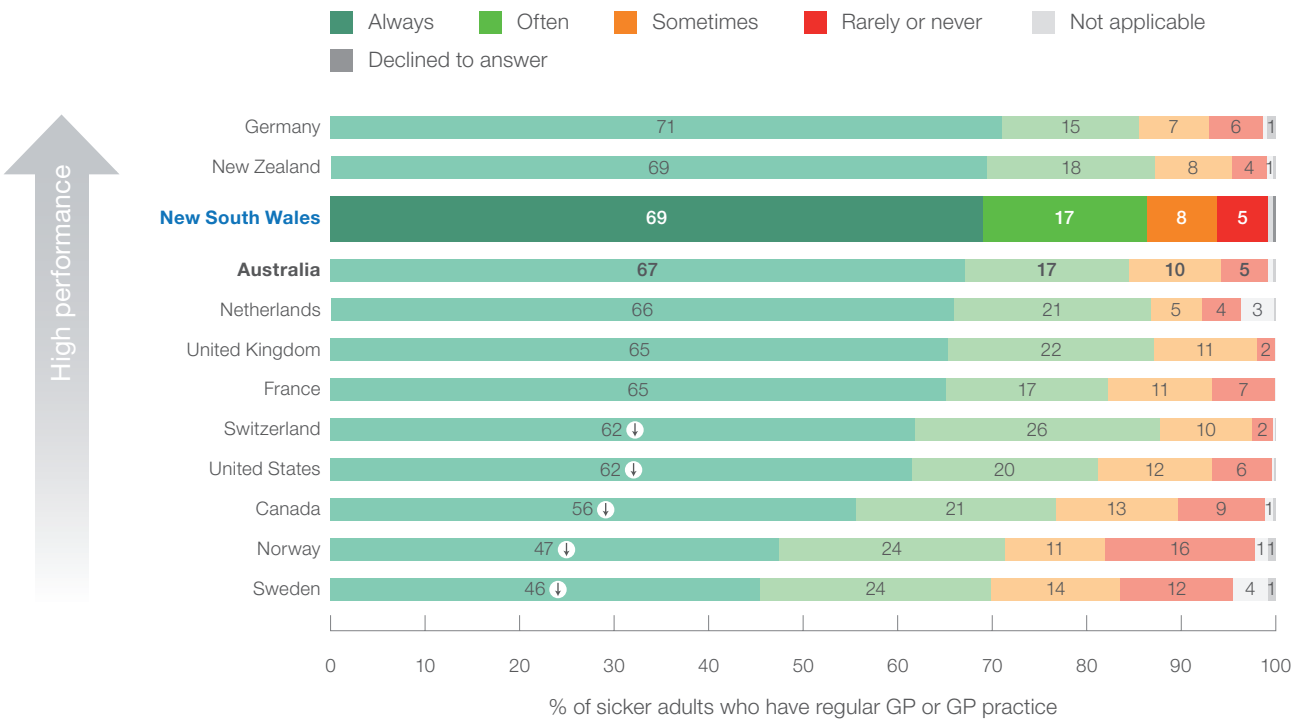
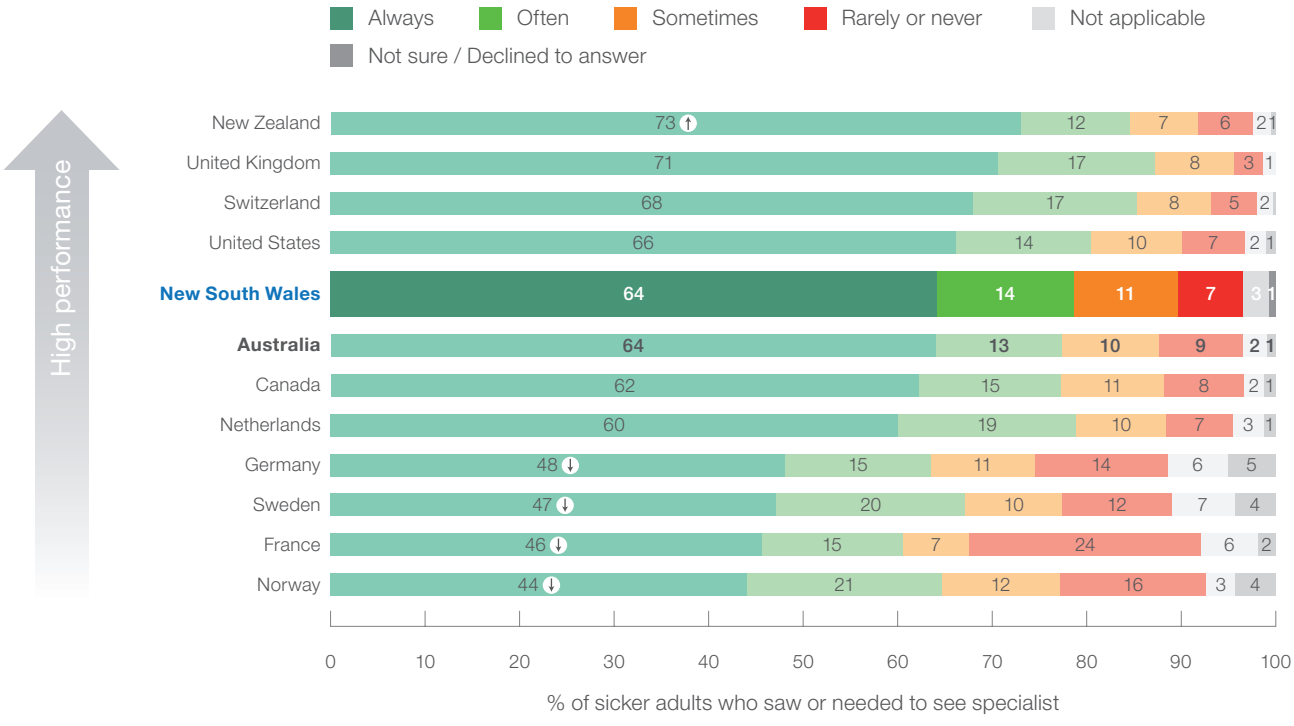


Figure 5.8: **Survey 2011** When you have received care or treatment from specialists or consultants, did they involve you as much as you wanted in decisions about your treatment or care?Ω



Coordination and continuity of care

Care for sicker adults is not always well coordinated

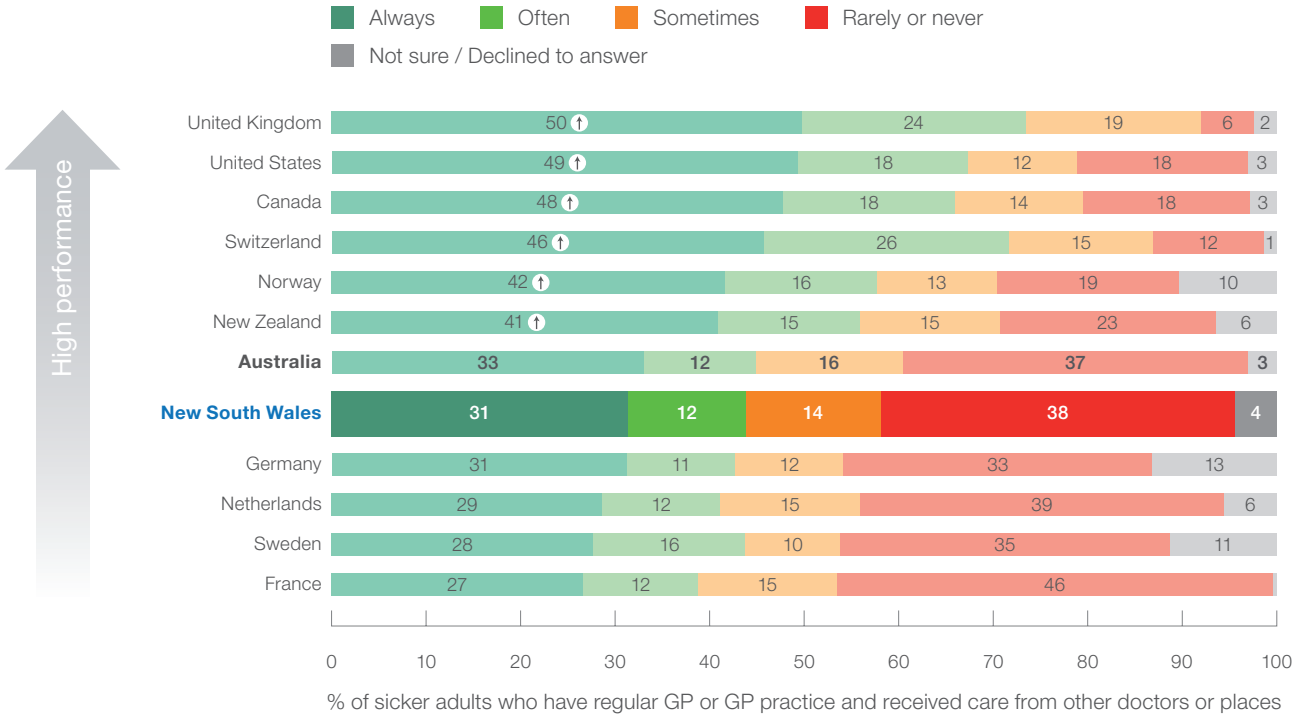
Patients expect healthcare professionals to work together in a coordinated way. Coordination can include helping patients arrange appointments, following-up to ensure they get recommended care, and making sure important information is given to other professionals involved in their care.

In 2011, three in 10 NSW sicker adults (31%) said someone in their GP practice always helped coordinate their care. NSW sicker adults were less likely to report their GP practice always helped with coordination than those in six comparator countries (Figure 5.9).

Among NSW sicker adults who needed to see a specialist in the previous year, most (74%) said the specialist had relevant information about their medical history. Eight in 10 (83%) said their regular GP seemed informed about the care they received from the specialist.

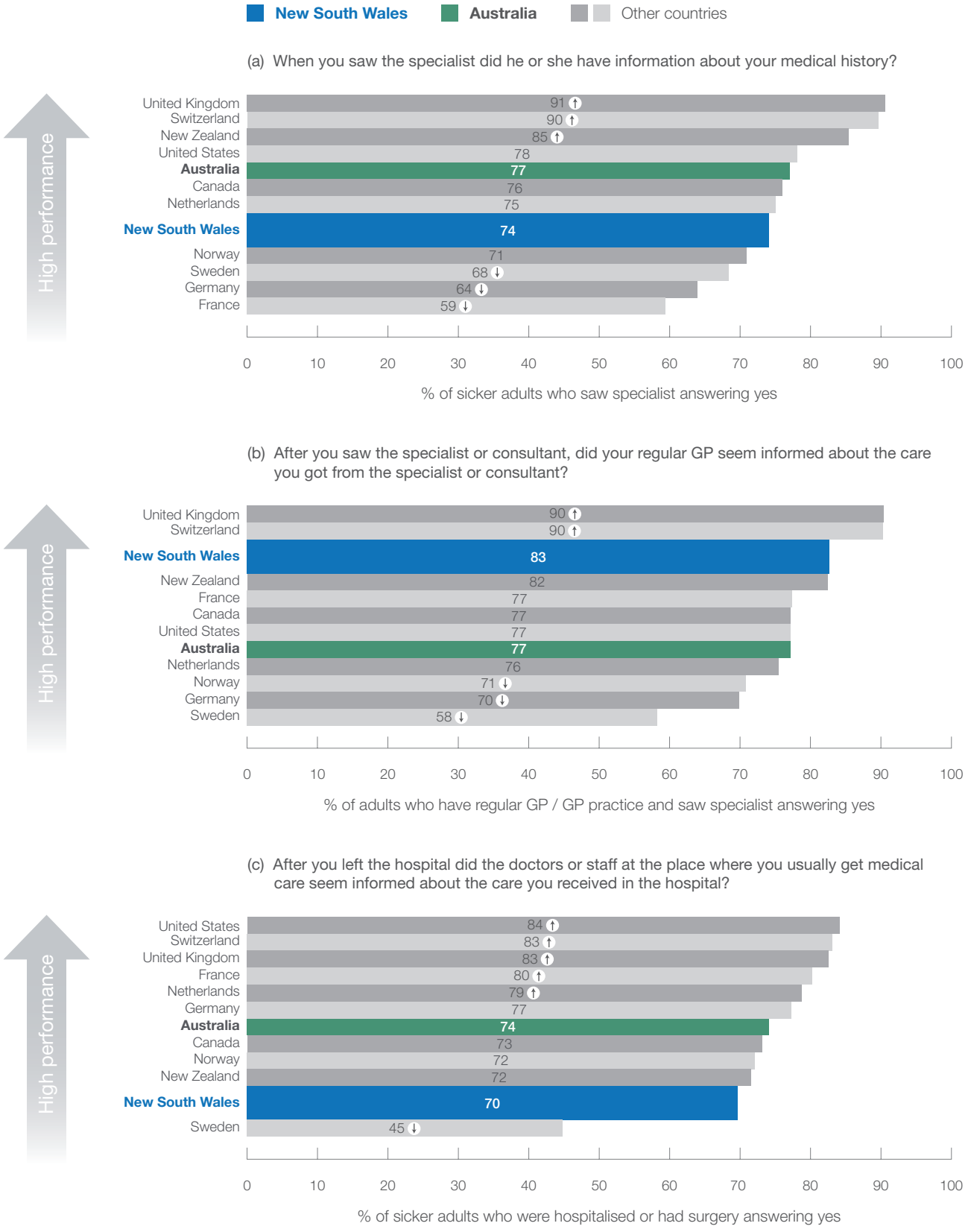
For those who were hospitalised or had surgery in the previous year, most (70%) reported their regular doctor seemed informed about the care they received in hospital. NSW was outperformed by five countries on this measure (Figure 5.10).

Figure 5.9: **Survey 2011** How often does your regular GP or someone in your GP's practice help coordinate or arrange the care you receive from other doctors and places, such as make appointments?(Ω)



(Ω) The Commonwealth Fund's 2011 International Survey of Sicker Adults in Eleven Countries (fair / poor self-rated health OR chronic condition OR hospitalised or had surgery in previous two years). Percentages may not add up to 100 due to rounding, ↑ estimate almost certainly higher than NSW; ↓ estimate almost certainly lower than NSW.

Figure 5.10: **Survey 2011** Patient information flow processes between primary and secondary care[Ω]



Person centredness and the '*medical home*'

Only half of NSW sicker adults receive benefits of a medical home

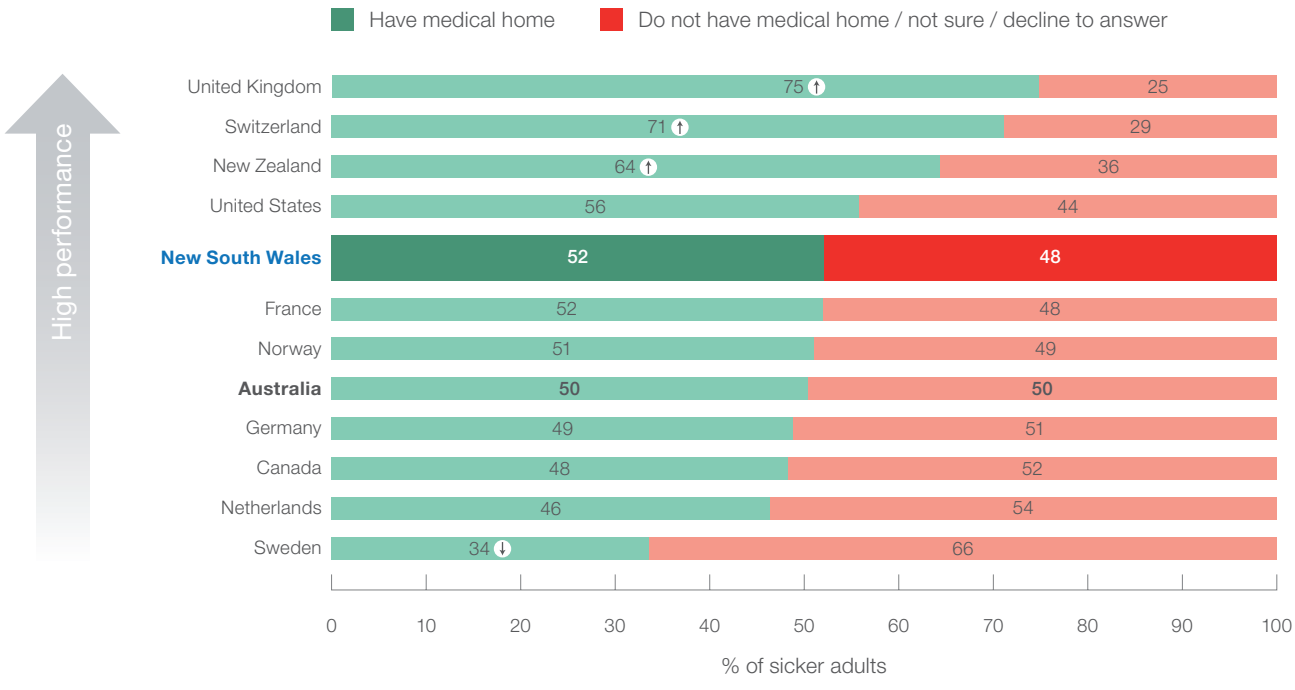
A person has a medical home if their primary care practice is accessible and offers comprehensive and coordinated care.[4]

Sicker adults have a ***'medical home'*** if: they have a regular doctor or GP practice; ***and*** their regular doctor always / often knows about their medical history; ***and*** they are able to get a same-day / next-day appointment ***or*** the GP practice always / often gives a same-day response to telephoned medical questions; ***and*** one person is responsible for all care they receive from other doctors for a chronic condition ***or*** the GP practice always / often helps coordinate care received from other doctors or places.

Just over half of NSW sicker adults (52%) had a medical home - a lower proportion than in three comparator countries (Figure 5.11). Statistical analyses showed that the limited prevalence of medical home in NSW was primarily the result of coordination issues (See Figure 5.9 on page 49).

NSW sicker adults who had a medical home reported higher levels of care quality and more appropriate use of care across a range of measures (Figure 5.12).

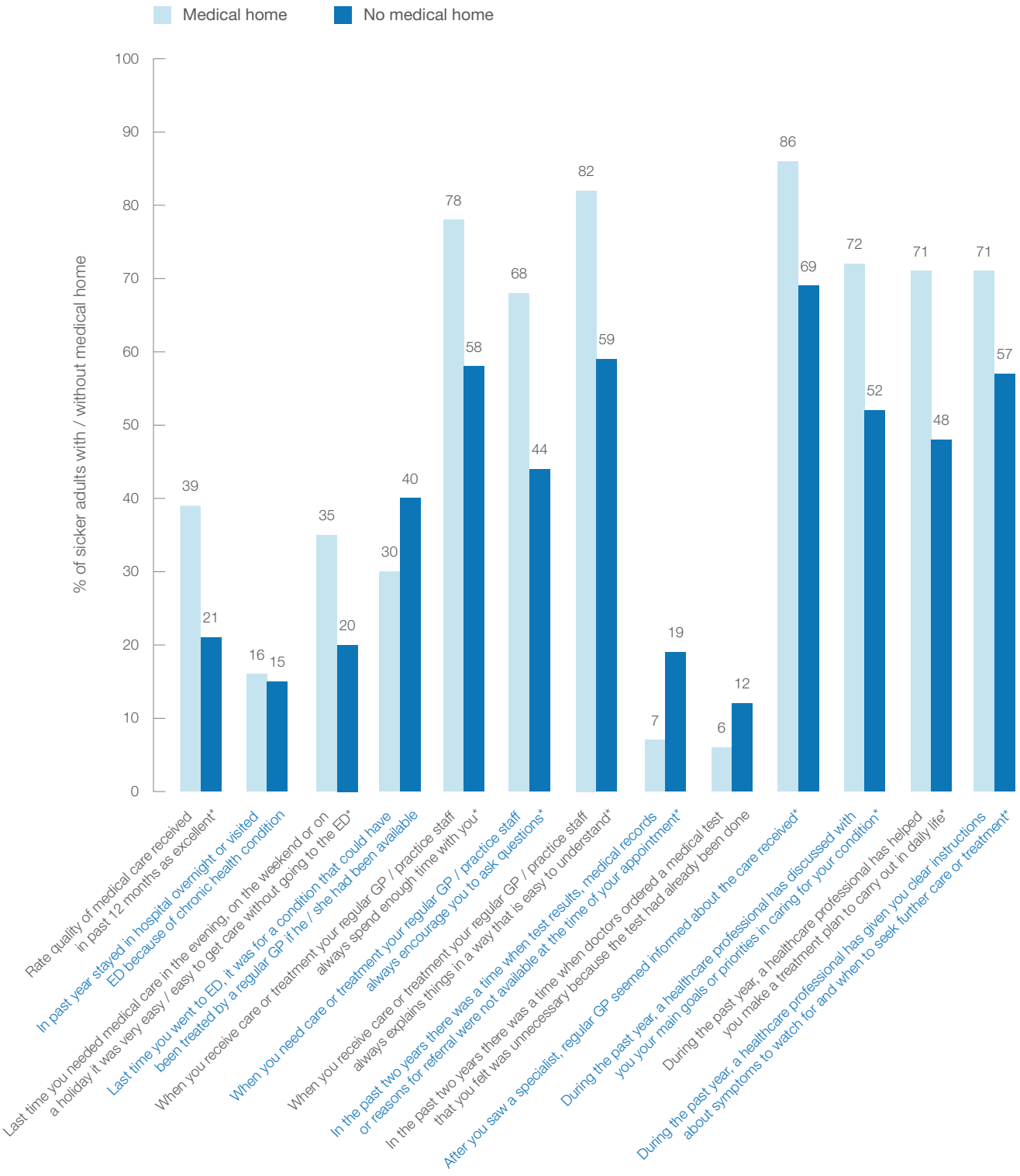
Figure 5.11: **Survey 2011** Percentage of sicker adults who have a medical home(Ω)



(Ω) The Commonwealth Fund's 2011 International Survey of Sicker Adults in Eleven Countries (fair / poor self-rated health OR chronic condition OR hospitalised or had surgery in previous two years). Percentages may not add up to 100 due to rounding, ↑ estimate almost certainly higher than NSW; ↓ estimate almost certainly lower than NSW.

(*) Statistical analyses suggest a true difference between those with and without a medical home.

Figure 5.12: **Survey 2011** Comparing responses - NSW sicker adults with and without a medical home*



Patient-centred chronic care

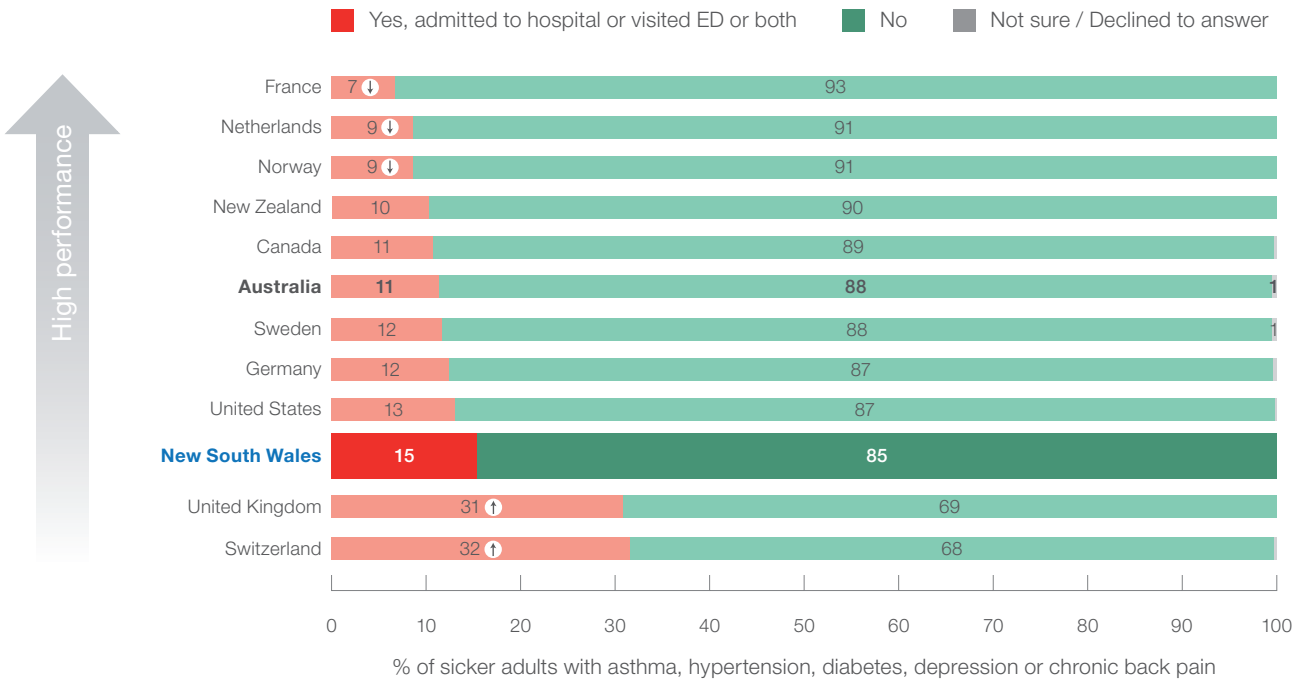
Two-thirds of sicker adults with chronic conditions receive information and support to help manage their care

In NSW, 73% of sicker adults reported having at least one of the following chronic conditions: hypertension (high blood pressure), heart disease; diabetes; joint pain or arthritis; asthma, chronic obstructive pulmonary disease (COPD) or other chronic lung problems; depression, anxiety or other mental health problems; chronic back pain; or cancer.

Hospitalisations for chronic conditions can be minimised with effective monitoring and treatment. In 2011, 15% of NSW sicker adults with a chronic condition said that it prompted hospitalisation or a visit to the ED. Those in the UK (31%) and Switzerland (32%) were more likely to report going to hospital, while those in France (7%), the Netherlands (9%) and Norway (9%) were less likely to do so (Figure 5.13).

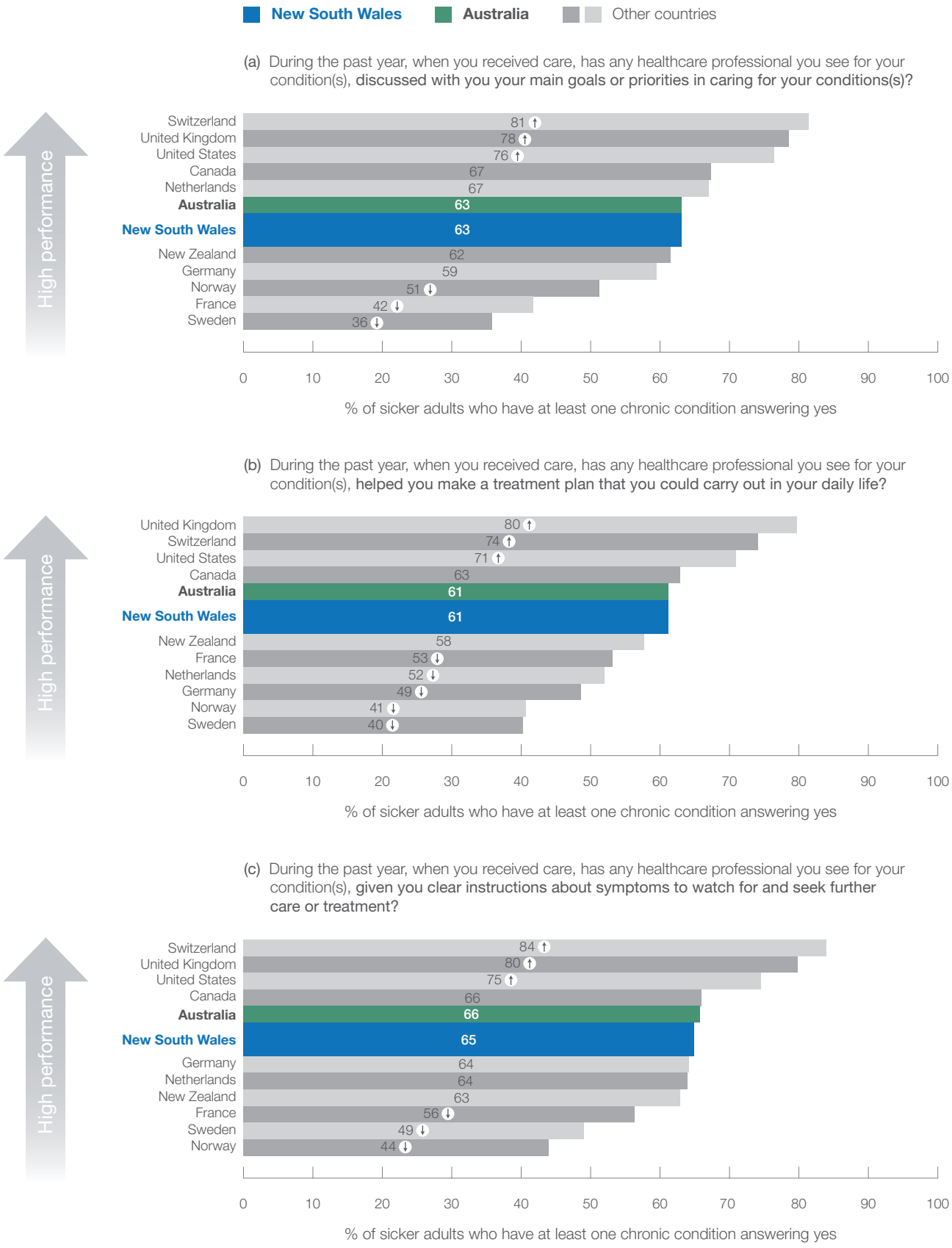
Properly supported, patients are highly effective at managing their chronic conditions from day to day. About two-thirds of adults with chronic conditions in NSW indicated they had appropriate support and that they had been involved in their treatment plans (Figure 5.14).

Figure 5.13: **Survey 2011** In the past year, have you stayed overnight in a hospital or visited the ED because of your chronic condition?(Ω)



(Ω) The Commonwealth Fund's 2011 International Survey of Sicker Adults in Eleven Countries (fair / poor self-rated health OR chronic condition OR hospitalised or had surgery in previous two years). Percentages may not add up to 100 due to rounding, ↑ estimate almost certainly higher than NSW; ↓ estimate almost certainly lower than NSW.

Figure 5.14: **Survey 2011** Patients with long-term chronic conditions - engagement in care plans?[Ω]



Coordination of care for those with chronic conditions

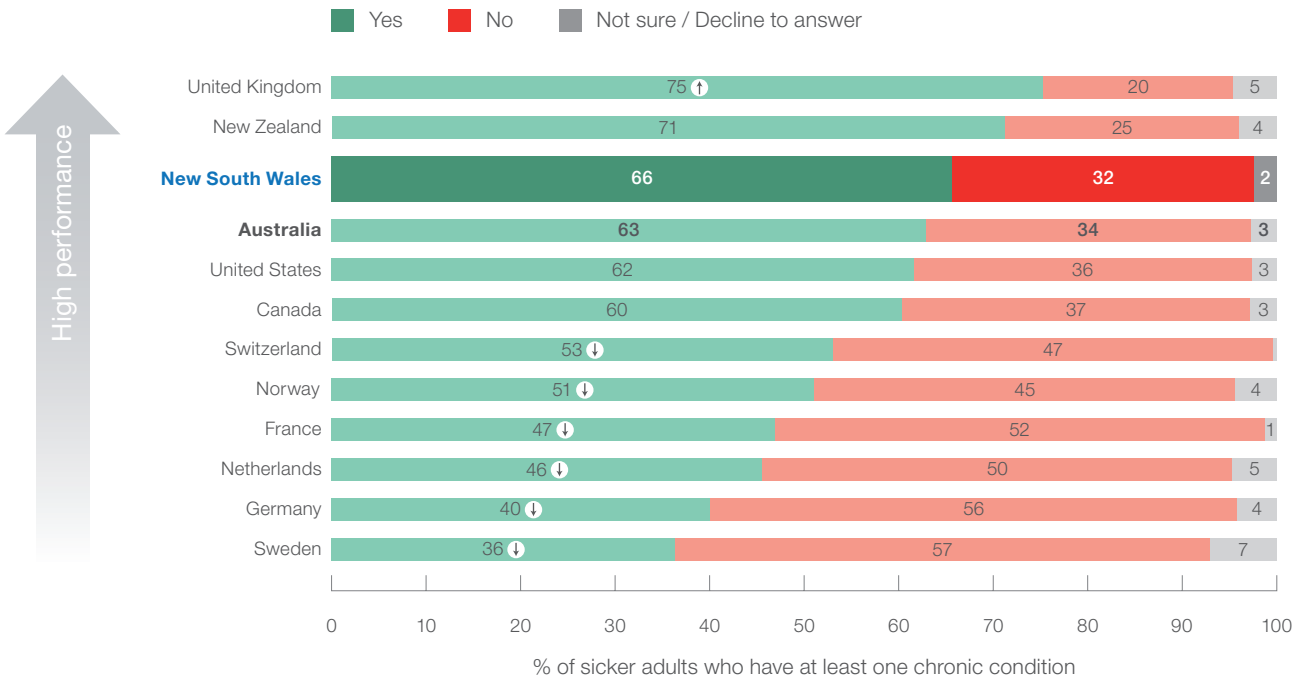
Seven in 10 people with chronic health conditions get help coordinating their care

People with chronic conditions such as: hypertension (high blood pressure), heart disease; diabetes; joint pain or arthritis; asthma, chronic obstructive pulmonary disease (COPD), or any other chronic lung problems; depression, anxiety or other mental health problems; chronic back pain; or cancer, often have complex health needs and need help to coordinate their care effectively.

In 2011, almost seven in 10 NSW sicker adults (66%) with at least one health condition reported that there was one person responsible for coordinating their care across different doctors and services. NSW performed well, ranking higher than six countries (Figure 5.15).

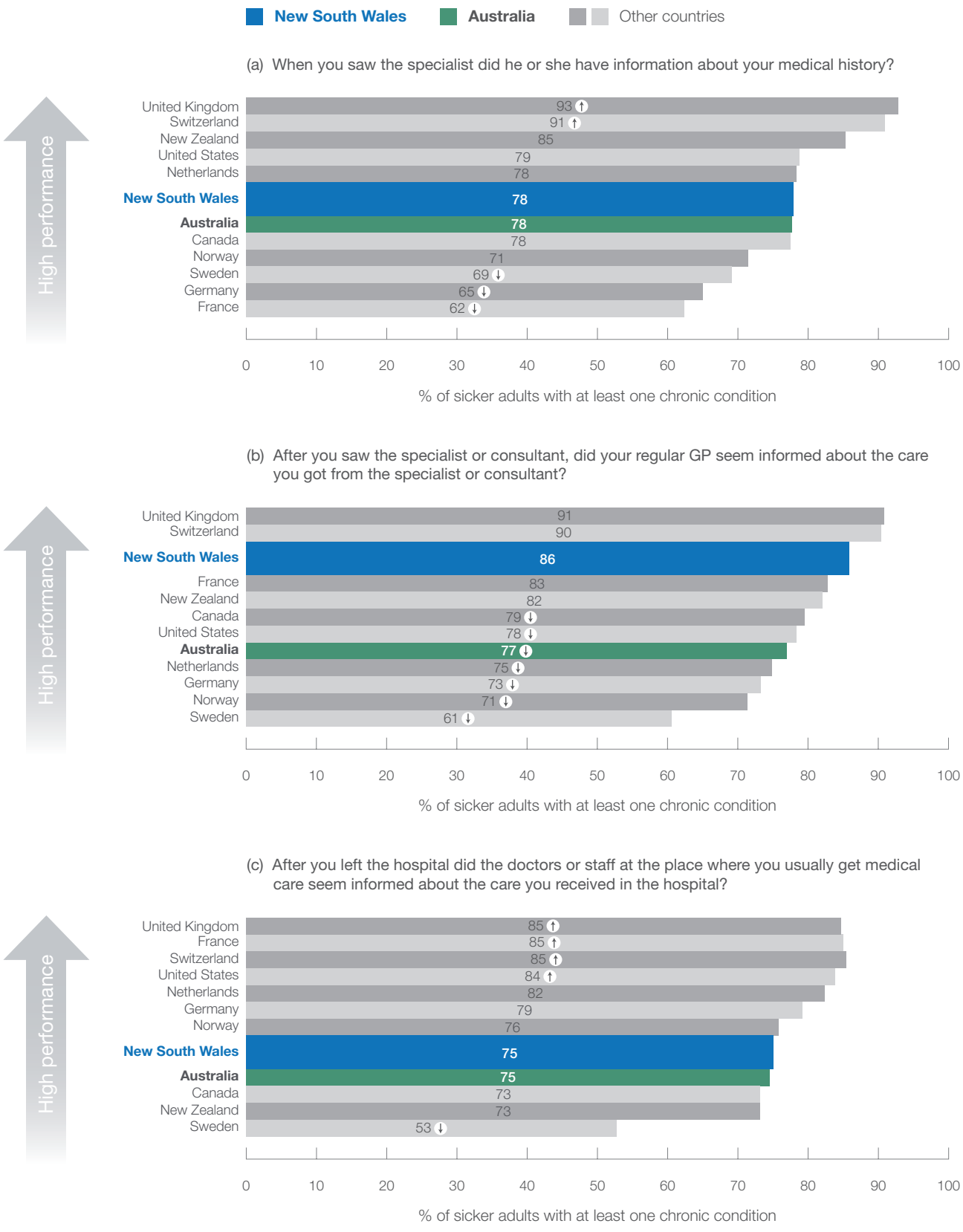
More than three-quarters of sicker adults with a chronic condition reported that information seems to flow between their GP and other specialists or consultants they see. In terms of care coordination between GPs and hospitals for sicker adults with chronic conditions, NSW was outperformed by four countries (Figure 5.16).

Figure 5.15: **Survey 2011** Is there one person responsible for all the care you receive from various doctors for your chronic condition(s)?(Ω)



(Ω) The Commonwealth Fund's 2011 International Survey of Sicker Adults in Eleven Countries (fair / poor self-rated health OR chronic condition OR hospitalised or had surgery in previous two years). Percentages may not add up to 100 due to rounding, ↑ estimate almost certainly higher than NSW; ↓ estimate almost certainly lower than NSW.

Figure 5.16: **Survey 2011** Care coordination and information flows, sicker adults with chronic conditions[Ω]



Equity

Healthcare for all – regardless of circumstances

Equity means that healthcare should be provided:

- On the basis of clinical need, regardless of personal characteristics such as age, gender, race, ethnicity, income, socioeconomic status or geographical location
- To reduce differences or disparities in health status across various sections of the population.

Equity in healthcare has been described as:

". . . grounded in the principle of distributive justice. [It] reflects a concern to reduce unequal opportunities to be healthy associated with membership in less privileged social groups, such as poor people; disenfranchised racial, ethnic or religious groups; women and rural residents."[1]

Treating patients equitably on the basis of clinical need, in a culturally sensitive way - remains a fundamental goal of the NSW public healthcare system.

We have used the term Aboriginal people, rather than Aboriginal and Torres Strait Islander people, in line with NSW Health usage, which recognises that Aboriginal people are the original inhabitants of NSW. Where we have drawn data from national sources (AIHW), we have retained the terminology of the source material.

This chapter covers:

- International comparisons of the relationship between self-reported income and views about the need for healthcare system change and health status
- International comparisons of the relationship between rurality and access to healthcare
- NSW level data on Aboriginal health.

'Sicker adults' refers to people who are likely to have had significant direct experience of the healthcare system in the recent past. It includes people who met at least one of the following criteria:

- Described their overall health as fair or poor
- Received medical care in the previous year for a serious or chronic illness, injury or disability
- Had been hospitalised in the previous two years (for any reason other than childbirth)
- Had surgery in the previous two years.

What we learnt about NSW	How well does NSW perform?	
	NSW performed *better* than:	NSW performed *worse* than:
Almost five in 10 sicker adults in rural areas (46%) said their most recent visit to the ED could have been avoided by the availability of a regular doctor, compared with 26% in urban areas	Full comparative data unavailable	
Five in 10 sicker adults in rural areas (50%) were able to see a doctor or nurse on the same or next day when sick, compared with 71% of sicker adults in urban areas	Full comparative data unavailable	
Just over one-quarter of sicker adults in rural areas (28%) said it was ***easy*** or ***very easy*** to access healthcare out of working hours, compared with 44% of those in urban areas	Full comparative data unavailable	
Aboriginal people in NSW have rates of potentially preventable hospitalisations that are more than double those for non-Aboriginal people	No international comparative data available	
Among NSW sicker adults with below average income, four in 10 (44%) said their health keeps them from working full-time or limits their ability to carry out daily activities. For those with above average income, 19% reported such limitations. The difference represents an '***income-associated gap***' of 25 percentage points.*	United States United Kingdom	Germany Switzerland Norway New Zealand Sweden Netherlands France Canada
One in 10 sicker adults (10%) with above-average income said the healthcare system required a complete rebuild, compared with 23% of those on below-average income. The difference represents an ***'income-associated gap'*** of 13 percentage points.*	No countries	Germany Sweden New Zealand France Canada Netherlands Norway United States

* Percentage point differences compared.

Income gaps: International context

Health-based activity limitations are associated with lower income

Indicators of equity usually focus on disparities within the population that a healthcare system serves. International surveys provide an opportunity to place any differences in context – allowing comparisons of the gap between subgroups within different populations.

The graphs on these two pages illustrate international data on the *'income-associated gap'*, which depicts differences between those with above-average and below-average income.

So, for example, on the question of how much change is needed in the healthcare system, 23% of sicker adults in NSW with below-average income said a complete rebuild was necessary, compared with 10% of those on above-average income. The income-associated gap is the difference – or 13 percentage points. Internationally, NSW and Australia had the biggest gaps (Figure 6.1).

This type of analysis can also be used to explore the relationship between income and health status. Among NSW sicker adults with below-average income, four in 10 (44%) said their health keeps them from working full time or limits their ability to carry out daily activities. For those with above-average income, 19% reported such limitations. The income-associated gap for NSW was 25 percentage points (Figure 6.2).

Figure 6.1: **Survey 2011** Our country's healthcare system has so much wrong with it that we need to completely rebuild it; below- and above-average income[ΩΦ]

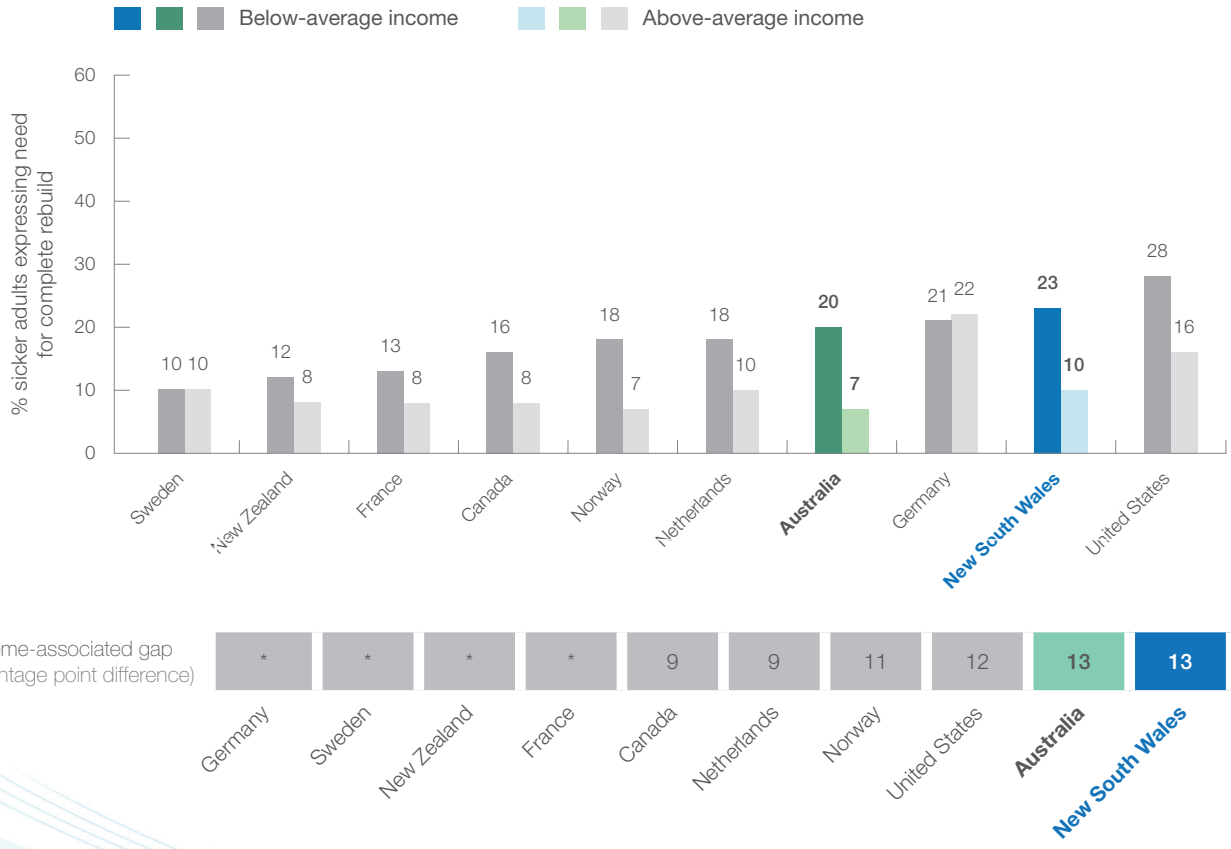
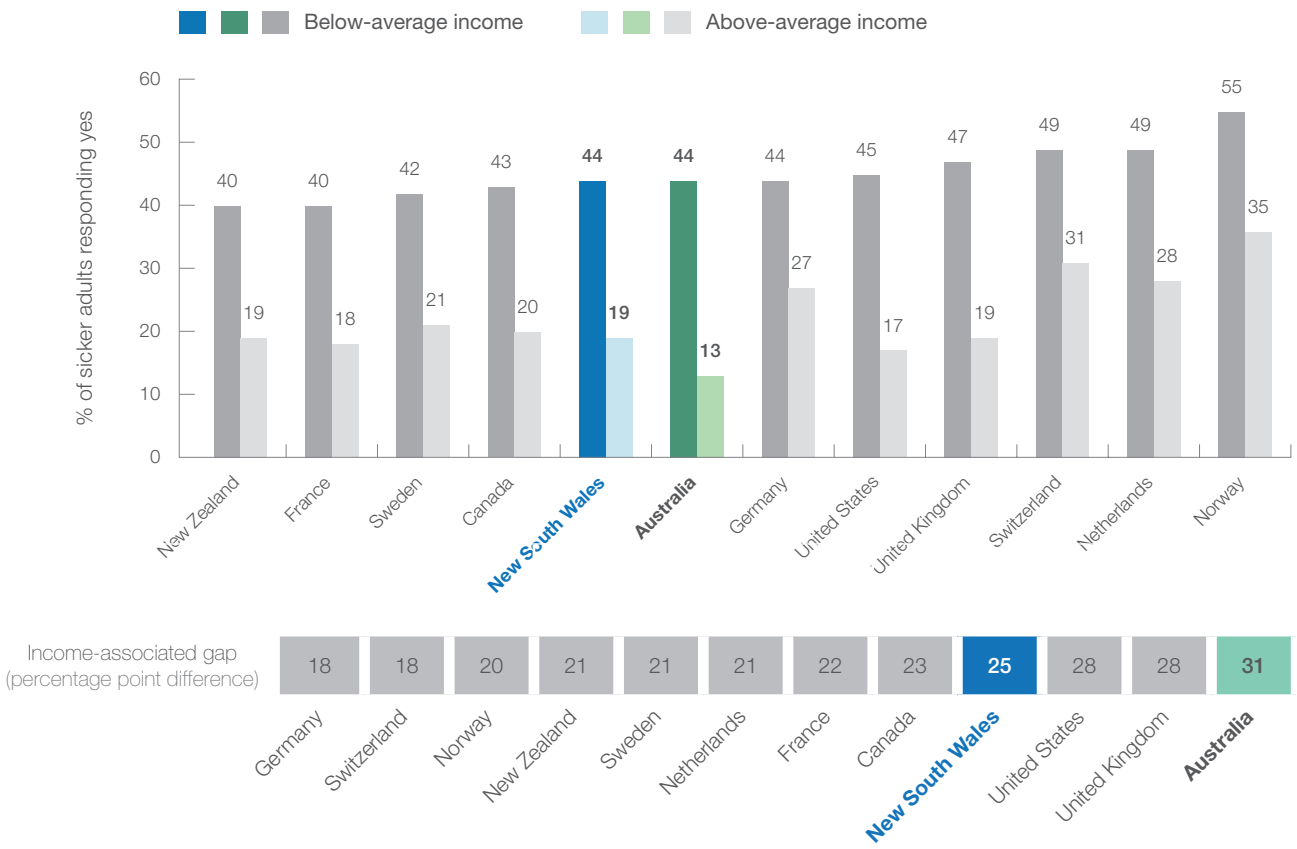


Figure 6.2: **Survey 2011** Does your health keep you from working full time or limit your ability to do housework? below- and above-average income[Ω]



(Ω) The Commonwealth Fund's 2011 International Survey of Sicker Adults in Eleven Countries (fair / poor self-rated health OR chronic condition OR hospitalised or had surgery in previous two years). Percentages may not add up to 100 / gaps may appear discordant due to rounding.

(◊) Figure 6.1: United Kingdom and Switzerland results suppressed due to small numbers.

(*) Statistical analyses did not show that the responses between high and low income groups in this jurisdiction were different.

Rurality and access to healthcare

NSW sicker adults in rural areas have difficulty accessing healthcare

Access to healthcare for those in rural areas of NSW has been a longstanding concern.[2,3]

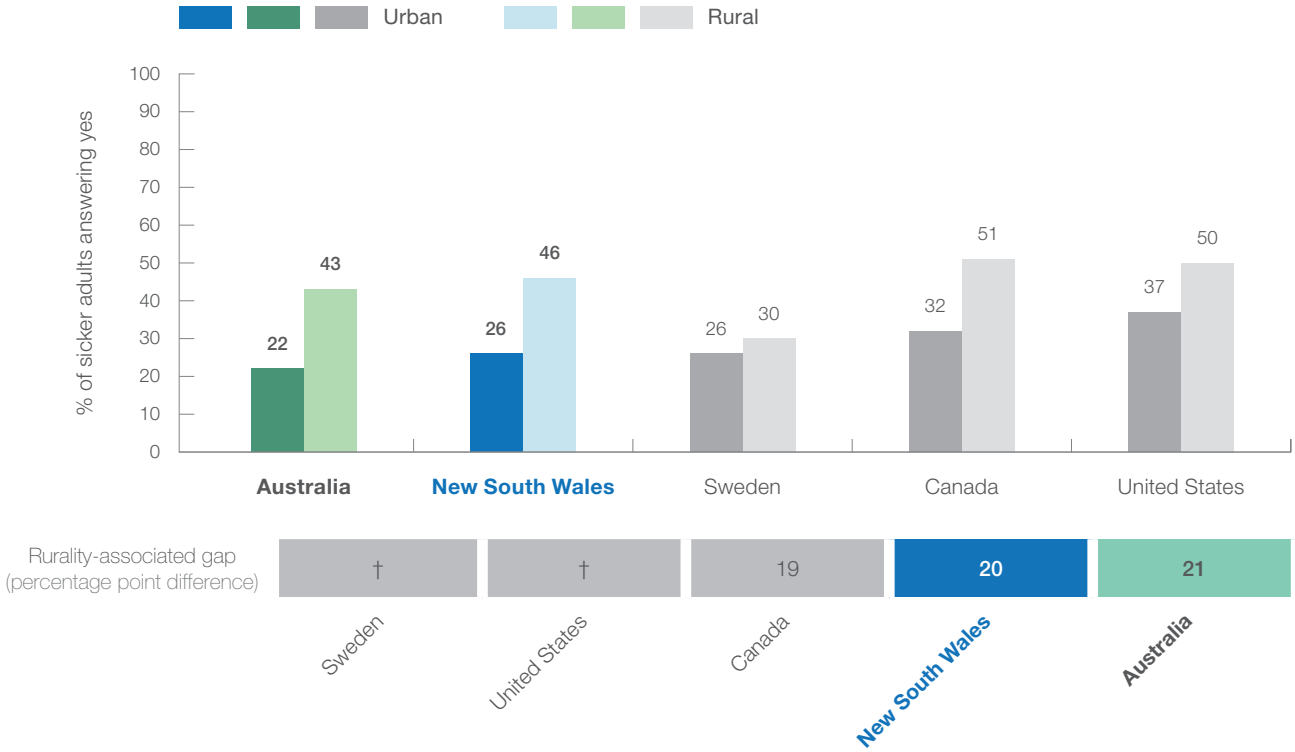
The graphs on this page illustrate 2011 survey data on the *'rurality-associated gap'* highlighting differences in responses between urban and rural sicker adults.

For example, on the question of whether their most recent visit to the ED could have been avoided by availability of their regular doctor, 26% of NSW sicker adults in urban areas answered yes, compared with 46% in rural areas. The *'rurality-associated gap'* is the difference – or 20 percentage points (Figure 6.3).

When asked about the ability to see a doctor or nurse on the same or next day when sick, the rurality-associated gap was 21 percentage points in NSW (Figure 6.4).

On the ease of accessing healthcare out-of-hours, the rurality-associated gap was 16 percentage points among NSW sicker adults (Figure 6.5).

Figure 6.3: **Survey 2011** The last time you went to the ED, was it for a condition that you thought could have been treated by your regular doctor if he or she had been available? urban and rural residents(Ω)



(Ω) The Commonwealth Fund's 2011 International Survey of Sicker Adults in Eleven Countries (fair / poor self-rated health OR chronic condition OR hospitalised or had surgery in previous two years). Percentages may not add up to 100 due to rounding, Data are provided for jurisdictions that are geographically large (total land area of 400,000 square kilometres or more). Within jurisdictions, urban and rural areas were defined slightly differently, see *Technical Supplement: Healthcare in Focus 2011*.

(†) Statistical analyses found no true difference between urban and rural populations.

Figure 6.4: **Survey 2011** The last time you were sick, were you able to see doctor or nurse on same day or next day? urban and rural residents[Ω]

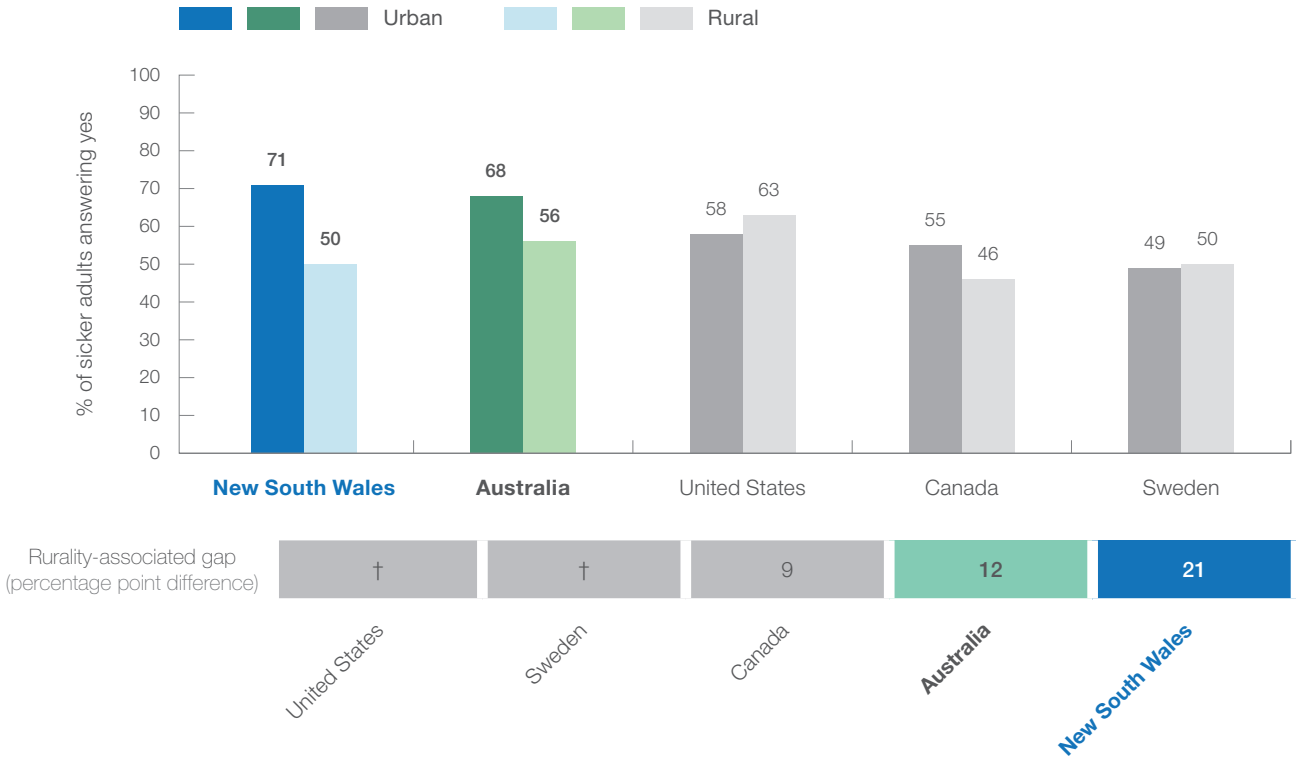
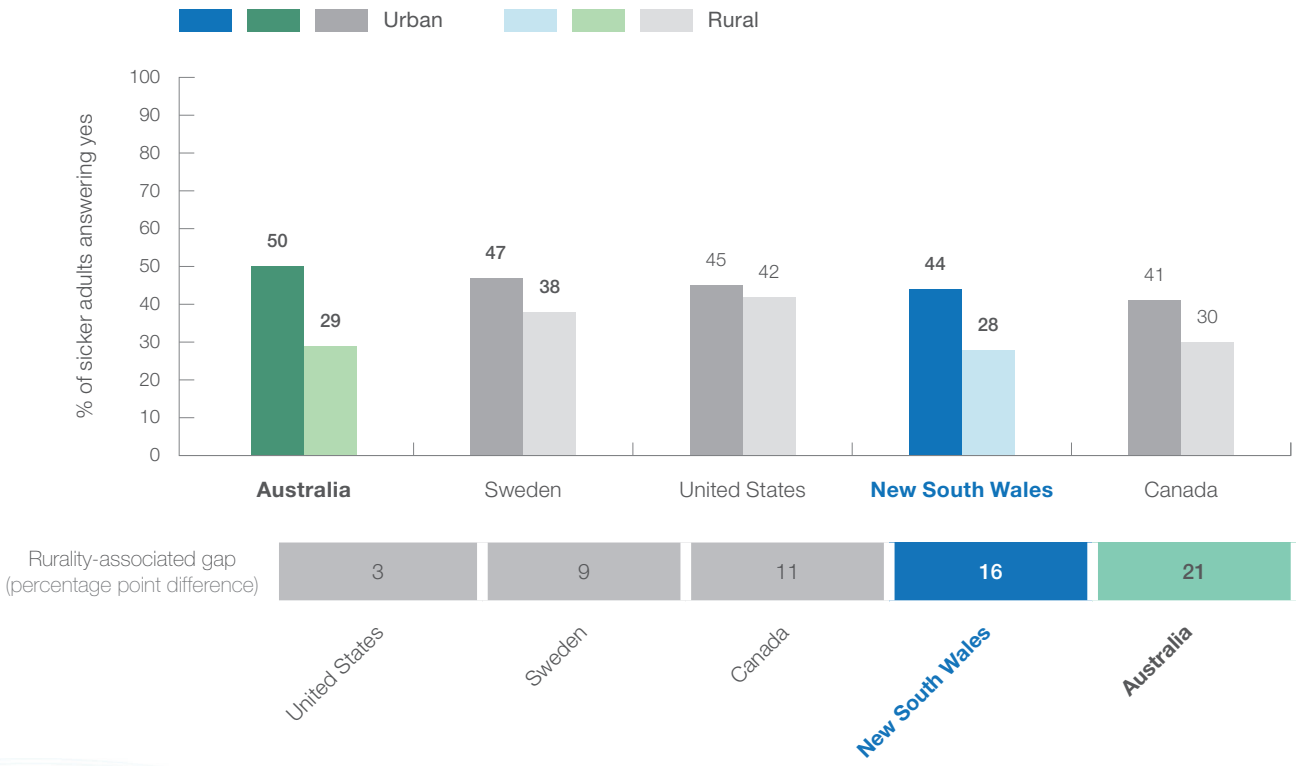


Figure 6.5: **Survey 2011** The last time you needed medical care in the evening, on a weekend, or on a holiday, was it very easy or easy to get care without going to the ED? urban and rural residents[Ω]



Aboriginal people and health disparities

Aboriginal people suffer more ill health than other Australians

Around 160,000 Aboriginal people live in NSW, making up 2.3% of the total population and 32.5% of the total Australian Aboriginal and Torres Strait Islander population. Around 5% of Aboriginal people in NSW live in remote or very remote areas.[4]

A range of national data show that Aboriginal people are significantly disadvantaged compared with non-Aboriginal people in terms of health status and health risk factors including socioeconomic status and access to health services.

According to a recent AIHW report:

- In December 2009, Indigenous children were less likely to be fully immunised than non-Indigenous children at one, two and five years of age
- Indigenous people are more than two times as likely to be hospitalised than non-Indigenous people in Australia
- Indigenous people experience longer waiting times for surgery
- In 2008–09, the rate of potentially preventable hospitalisations for Indigenous people was 4.9 times that of other Australians.[5]

There is a life expectancy gap of 8.8 years for Aboriginal males, and 7.5 years for Aboriginal females, compared to non-Aboriginal people.[6]

In NSW, Aboriginal people have higher rates of potentially avoidable deaths (Figure 6.6) and premature deaths (before the age of 75) than non-Aboriginal people (Figure 6.7), however the gender gap is wider for Aboriginal people.

Figure 6.6: Potentially avoidable deaths, by sex and Aboriginality, NSW, 1998 – 2007[ΣΠ]

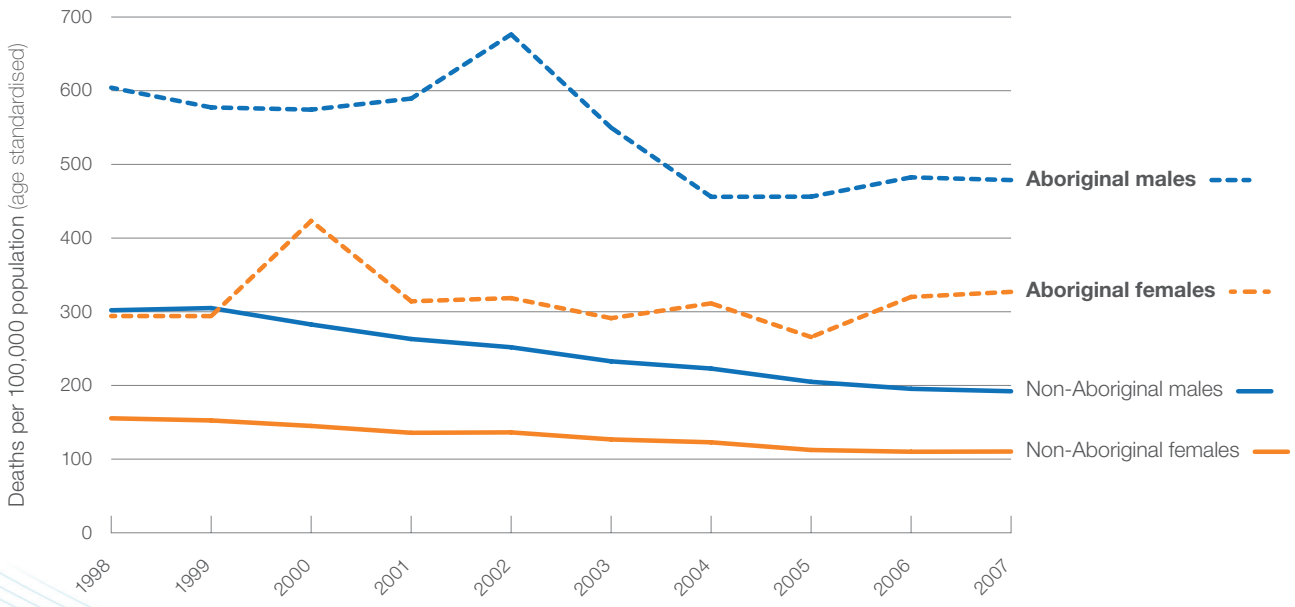
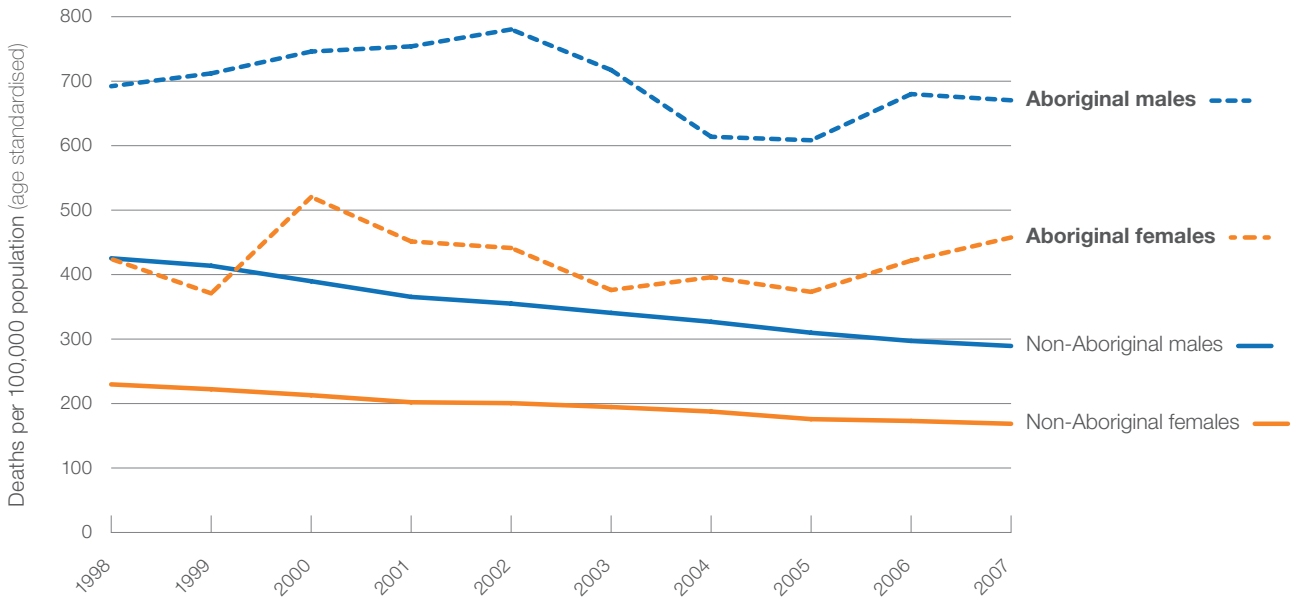


Figure 6.7: Premature deaths (<75 years) by sex and Aboriginality, NSW, 1998 – 2007[Σ]



(Σ) Centre for Epidemiology and Research, NSW Ministry of Health. Deaths were classified using ICD-10. Rates were age-standardised using the Australian population as at 30 June 2001.

(Π) Potentially avoidable death definitions from ANZ Atlas of avoidable mortality PHIDU 2006, based on Tobias and Jackson 2001.[7]

Resources

Powering the healthcare system

A significant proportion of the state's resources are spent on healthcare. In 2008–09, total public and private health expenditure was $35 billion – almost 9% of gross state product.[1]

Efficient use of resources is a defining characteristic of high-performing healthcare systems. Worldwide, pressures of increased prevalence and burden of chronic conditions, technological developments and patient expectations are focusing attention on value for money, efficiency and sustainability.

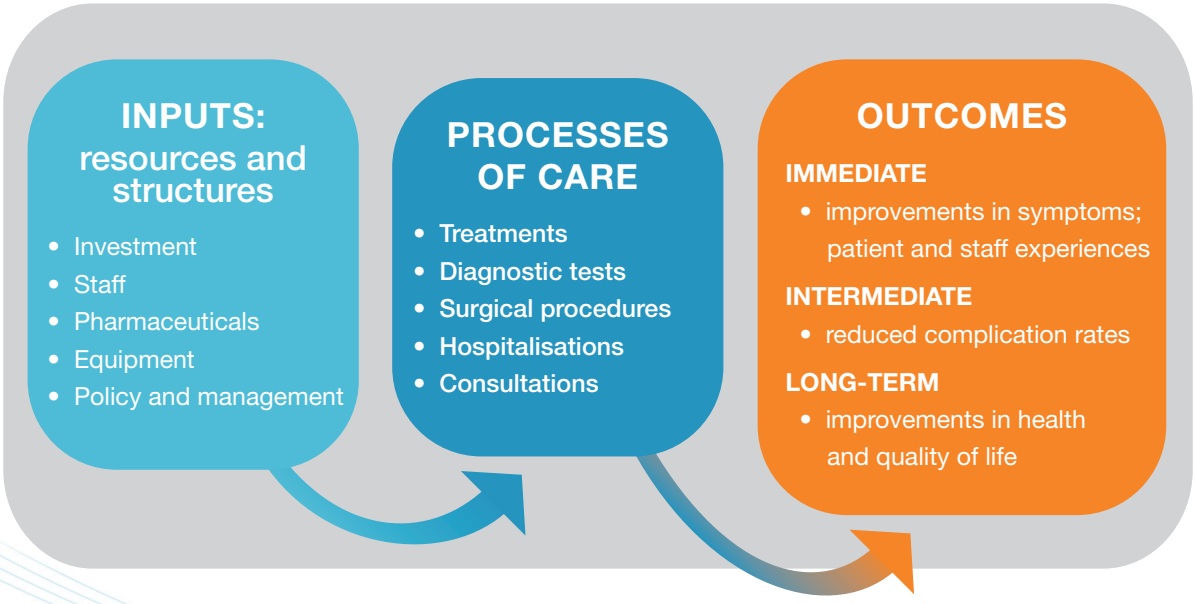
The people of NSW expect their healthcare system to have sufficient resources to provide high-quality, safe care to people who need it. They also expect value for money and efficient use of resources to ensure the system is affordable and sustainable.

From an economic perspective, the healthcare system can be viewed as having a *'production function'* – where inputs (such as staff, capital, medicines) are used to perform activities or processes of care (such as surgical procedures or diagnostic tests) with the aim of influencing outcomes, such as improved health and length of life (Figure 7.1). All of this occurs within a framework of needing to be sustainable into the future.

Previous chapters have examined outcomes in terms of health status, mortality and patient experience. The focus of this chapter is:

- What resources are used in health?
- What activities do those resources produce?

Figure 7.1: Production function in health



What we learnt about NSW	NSW was *higher* than:	NSW was *lower* than:
	Note: more resources do not always OR directly correspond with higher performance	
In 2008–09, total public and private expenditure was $35 billion or $4,933 for each person	United Kingdom New Zealand	United States Norway Switzerland Canada Netherlands Germany France Sweden
Almost seven in every 10 healthcare dollars spent in NSW in 2008–09 came from public sources	United States Switzerland	Sweden New Zealand France Germany Canada

Notes about this chapter: It is difficult to interpret appropriate levels of resources in healthcare systems. While under-resourcing can impede the delivery of quality healthcare, higher levels of resourcing do not necessarily correspond to higher performance and may suggest waste. Therefore we note relative numbers, counts and volumes without ranking performance.

Healthcare in Focus 2010:
How NSW compares internationally

The Bureau's first annual performance report includes information on the number of physicians, nurses and beds for NSW and 10 comparator countries

Investment in healthcare services

In 2008–09, NSW spent $4,933 per person on health and healthcare

Total health expenditure in NSW (public and private) was $35 billion in 2008–09.[1]

Gross domestic product (or in the case of NSW, gross state product) is a measure of the size of a jurisdiction's economy. It refers to the market value of all goods and services produced within a particular time frame (usually a year). The share of GDP spent on health reflects the proportion of the total economic effort that is spent on funding health and healthcare.

In 2008–09, NSW allocated 8.7% of its gross state product on health. This proportion was the same as that recorded in Australia as a whole and lower than all of the selected OECD countries analysed except Norway (Figure 7.2).

Health expenditure has been increasing for decades. In NSW, between 1998–99 and 2008–09, total spending on health increased in current prices from $2,608 per person to $4,933 per person (a nominal 89% increase). Internationally, increases in per-person spending ranged from 70% in Germany to 127% in the United Kingdom (Figure 7.3).

When interpreting these data, it is important to note that international evidence has shown more spending does not always or directly result in higher-quality healthcare.[2,3]

Figure 7.2: Proportion of GDP (gross domestic product) invested in health, 2008–09[∞]

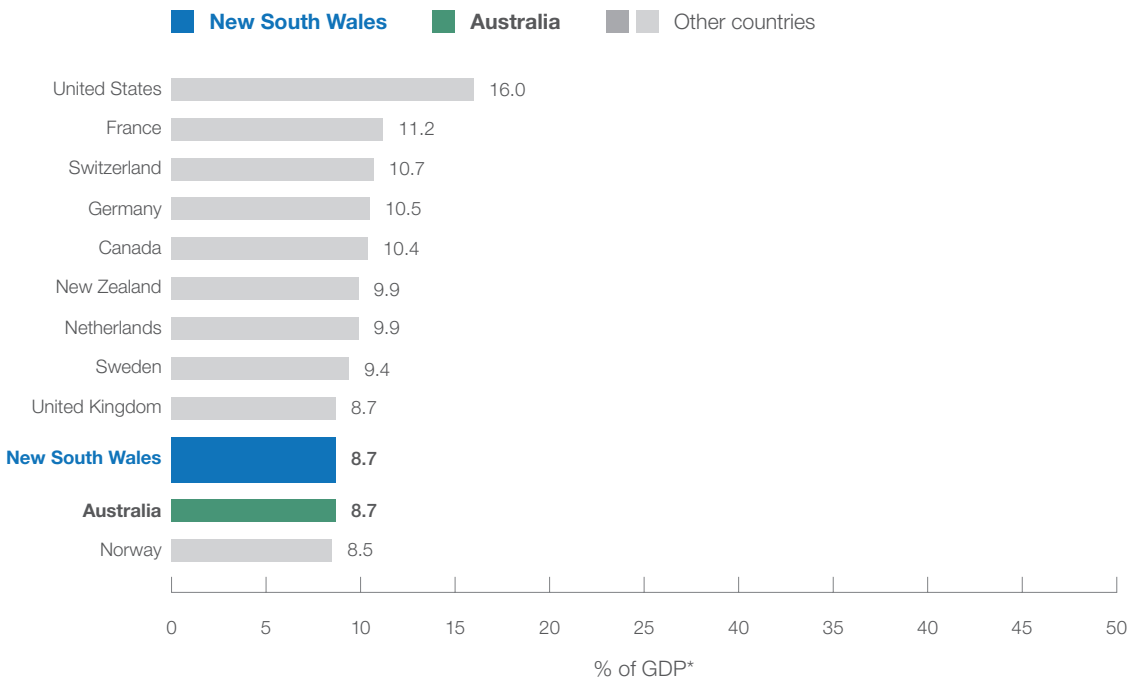
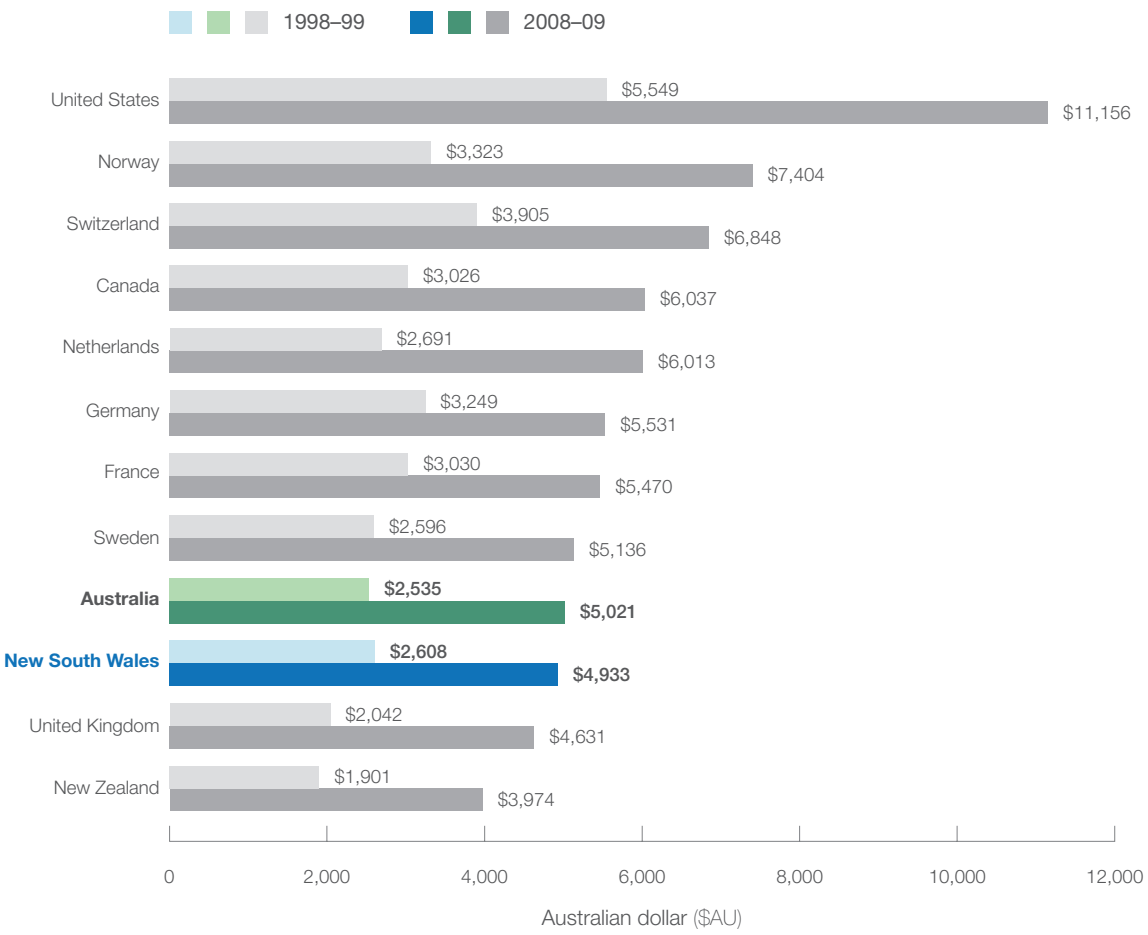
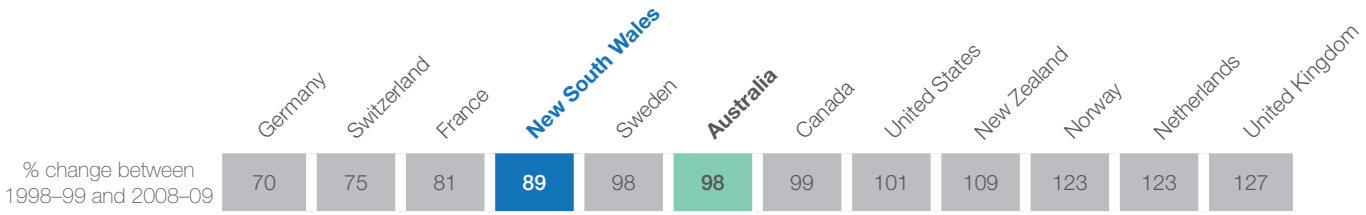


Figure 7.3: Total health expenditure (public and private) per person in Australian dollars (purchase price parity and current prices), 1998–99 and 2008–09(∞)





(∞) AIHW Health Expenditure Database and OECD Health Data. All expenditure reported using the OECD System of Health Accounts (SHA) framework. Definition of financial years vary slightly across jurisdictions (July 2008 to June 2009 for NSW and Australia, for other countries, see *Technical Supplement: Healthcare in Focus 2011*).

(*) For NSW, data refer to proportion of gross state product.

Expenditure on health: Funding and spending

In 2008–09, seven in every 10 healthcare dollars came from the public purse

Healthcare systems are often funded with a mixture of public and private sources. Public, or government, funding is primarily gathered via the taxation system.

Private expenditure includes private health insurance, out-of–pocket costs paid directly by patients (including Medicare and medical insurance gaps), and other non-government sources such as workers compensation and third-party motor vehicle insurance payments. Across Australia, out-of-pocket costs make up 57% of private health expenditures.[1]

In 2008–09, more than $23 billion (69%) of healthcare current expenditure (excluding capital spending) in NSW was covered by public funds. More than $10 billion (31%) was from private sources (Figure 7.4).

Together, total public and private healthcare spending in NSW amounted to $35 billion in 2008–09. This money was allocated to a range of services. Two-thirds (68%) of total health expenditure funded inpatient, outpatient and primary care services. Only around 2% was directly allocated to specific prevention and health promotion activities (Figure 7.5).

Figure 7.4: Public and private expenditure on health, as a percentage of current expenditure, NSW, 2008–09[¶]

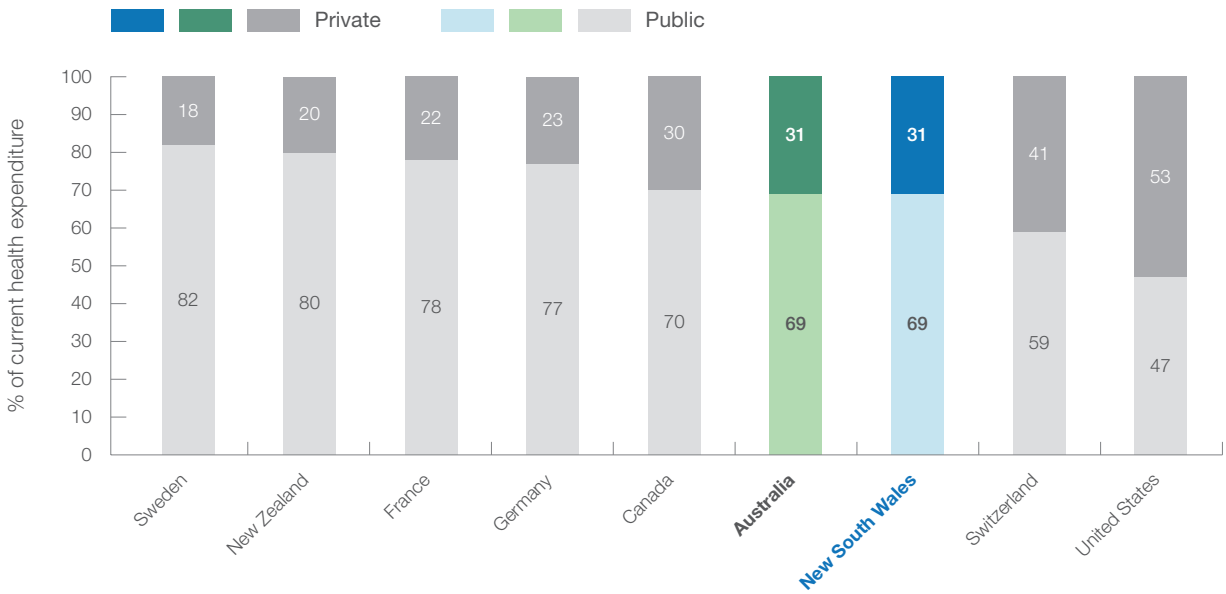
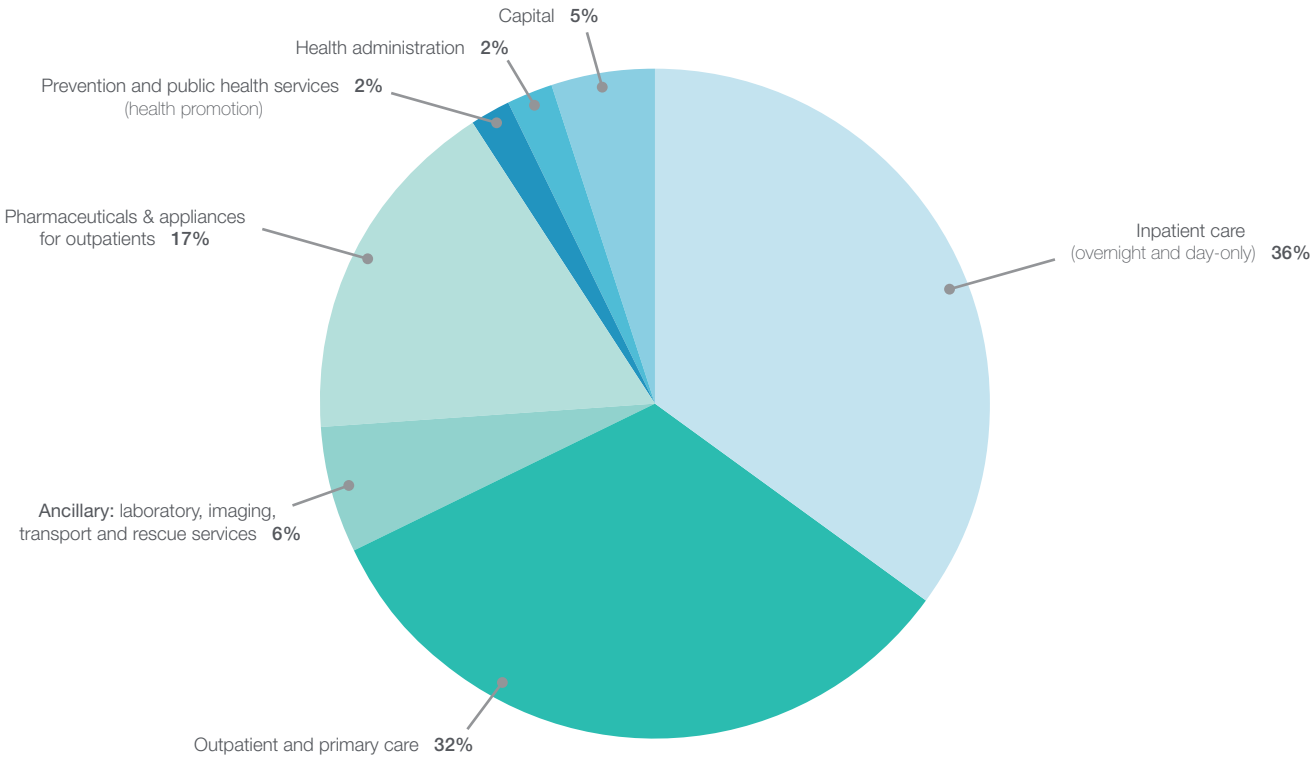


Figure 7.5: Proportion of total health expenditure (public and private), by major category, NSW, 2008–09[¶]



(¶) **AIHW Health Expenditure Database and OECD Health Data.** All expenditure reported using the OECD System of Health Accounts (SHA) framework. Definition of financial years varies slightly across jurisdictions. Data refer to July 2008 to June 2009 for NSW and Australia, for other countries, see *Technical Supplement: Healthcare in Focus 2011*. Data for United Kingdom, Norway and Netherlands not available in OECD Health data.

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Glossary

ABS – Australian Bureau of Statistics.

Acute myocardial infarction (AMI) – Commonly known as a heart attack, an AMI is an interruption of blood supply to a part of the heart, which causes heart cells to die.

Age-standardisation – A method of adjusting data to correct for differences in population age structures when comparing disease and mortality rates for different periods of time, different geographic areas and/or different population sub-groups.

AIHW – Australian Institute of Health and Welfare.

Angina – Chest pain due to an inadequate supply of oxygen to the heart muscle.

Appropriateness – In performance measurement terms, the extent to which effective care was delivered in accordance with patients' needs.

Asthma – An inflammatory disease of the air passages, making them prone to narrowing and increased mucus production. It becomes difficult to move air in and out of the lungs. Symptoms include wheeze, shortness of breath, chest tightness and cough.

Atherosclerosis – A process where a fatty deposit (plaque) builds up in the lining of the arteries. Atherosclerosis is most serious when it affects the blood supply to the heart (causing angina or heart attack) or to the brain (which can lead to stroke).

BMI (body mass index) – Calculated from height and weight information, using the formula weight (kg) divided by the square of height (m). BMI values are grouped according to the table.

Body Mass Index (ADULT)

Underweight	Less than 18.5
Normal range	18.5 to less than 25.0
Overweight	25.0 to less than 30.0
Obese	30.0 and greater

Note: ABS definitions

Separate BMI classifications were produced for children. BMI scores were created taking into account the age and sex of the child.

Cancer – A group of diseases characterised by the uncontrolled growth and spread of abnormal cells.

Caesarean section – The surgical delivery of a baby through the mother's abdomen.

Cholesterol – Cholesterol is a fatty substance found in the blood. Produced primarily in the liver, cholesterol is essential for the production of hormones, vitamin D and bile and is important for protecting nerves and in cell structure. Cholesterol is carried from the liver to the rest of the body in low density lipoproteins (LDL, or "*bad*" cholesterol) and back to the liver in high density lipoproteins (HDL, or "*good*" cholesterol). High levels of LDL cholesterol are associated with a higher risk of cardiovascular disease.

Circulatory disease – Disorders that affect the heart and blood vessels (including stroke and heart attack).

COAG – Council of Australian Governments.

Community care (mental health) – Specialised public psychiatric services delivered in a community setting. It includes residential and non-residential psychiatric services which provide specialised treatment, rehabilitation or care for people affected by a mental illness or a psychiatric disability.

COPD – Chronic Obstructive Pulmonary Disease. COPD refers to chronic bronchitis and emphysema, which are co-existing diseases of the lungs in which the airways become narrowed. This narrowing leads to a limitation of the flow of air to and from the lungs causing shortness of breath. In clinical practice, COPD is defined by its characteristically low airflow on lung function tests. In contrast to asthma, this limitation is poorly reversible and usually gets progressively worse over time.

ED – Emergency Department.

Effectiveness – In performance measurement terms, the use of medical treatments, services and preventive actions that are known to improve health.

Elective surgery – Any form of surgery that a patient's doctor believes to be necessary but which can be delayed by at least 24 hours.

End-stage renal disease (ESRD) – A condition characterised by the complete, or almost complete, failure of the kidneys to function. The main role of the kidneys is to remove waste and excess water from the body. Patients with ESRD require dialysis or a kidney transplant to replace lost kidney function. The most common underlying causes are diabetes and high blood pressure.

GP – General practitioner.

HbA1c – Also known as glycated or glycosylated haemoglobin, HbA1c levels reflect blood glucose (sugar) concentration over the preceding two to three months. Measuring HbA1c in diabetic patients shows how well the blood glucose level has been controlled in the recent past.

HOIST – Health Outcomes Information and Statistical Toolkit. The HOIST system refers to a data access, analysis and reporting facility established and operated by the Centre For Epidemiology and Research, Public Health Division, NSW Ministry of Health.

Hospitalisation – The act of placing a person into the care of a hospital. In this report, the number of hospitalisations is defined by the number of '*separations*' (see separations).

Hypertension – Also called high blood pressure, a chronic condition in which the systemic arterial blood pressure is elevated.

Hysterectomy – The surgical removal of the womb (uterus), with or without the removal of the ovaries.

Incidence – The number of new cases of a condition, symptom, death, or injury that develop during a specific time period, such as a year. The number is often expressed as a percentage of a population.

Income-associated gap – A measure of differences in patient survey responses associated with income levels. The income-associated gap is calculated by stratifying a survey population by income levels and calculating the percentage point difference in mean responses between those with above-average and below-average income.

Life expectancy – The average number of years that a person can be expected to live.

Mortality – A measure of deaths in the population. For Australia, the ABS publishes cause of death data 15 months after the reference period. These data are categorised as *'preliminary'*. There is a subsequent process of revisions at 12 months (categorised as *'revised'*) and 24 months (categorised as *'final'*).

NHA – National Healthcare Agreement. A bilateral five-year agreement between the Australian Government and each state and territory.

OECD – Organisation for Economic Cooperation and Development. An international organisation focused on social and economic issues.

Outcome measure – An indicator which gauges whether there have been improvements in health status or determinants of health. Outcome measures can be immediate, intermediate of long-term in their time horizon.

Out-of-hours – Outside of normal office working hours (i.e. 8:00am to 6:00pm, Monday to Friday).

Potentially preventable hospitalisations (PPH) – Admissions to hospital which could have been avoided with access to quality primary care and preventive care. Include a range of: vaccine-preventable (e.g. tetanus); acute (e.g. dehydration); and chronic (e.g. asthma) conditions.

Prevalence – The number of cases of a specific disease present in a given population at a certain time.

Process measure – An indicator which gauges whether healthcare delivered to patients is consistent with standards or clinical guidelines, or evidence has shown to be associated with improved health.

PYLL – Potential Years of Life Lost. A summary measure of premature mortality calculated by totalling deaths occurring at each age and multiplying this figure by the number of remaining years of life up to a selected age limit.

RACGP – Royal Australian College of General Practitioners.

Rehabilitation – Restoration of skills to a person who has had an illness or injury so as to regain maximum self-sufficiency and function.

Relative survival – The percentage of patients with a disease that are alive five years after diagnosis divided by the percentage of the general population of corresponding sex and age that are alive after five years.

Renal dialysis – An artificial replacement for lost kidney function in people with renal failure. It involves a process of diffusing blood across a semipermeable membrane to remove substances that a normal kidney would eliminate, including poisons, drugs, urea, uric acid, and creatinine. For chronic kidney disease, renal dialysis is required at regular intervals.

Respiratory disease – The respiratory system supplies the blood with oxygen for delivery to all parts of the body. It includes the airways and the lungs. Respiratory disease comprises both acute (e.g. influenza and pneumonia) and chronic (e.g. chronic obstructive pulmonary disease and asthma) conditions.

Rurality-associated gap – A measure of differences in patient survey responses associated with where they live. The rurality-associated gap is calculated by stratifying a survey population into urban and rural dwellers and calculating the percentage point difference in mean responses between those groups.

Separation – The process by which an admitted patient completes an episode of care either by being discharged, dying, transferring to another hospital or changing the type of care (for example, changing from being recorded as an acute patient to a rehabilitation patient). As a person can have multiple *'separations'* within the same hospitalisation period, separations are not the same as *'admissions'*.

Sicker adults – A term used to describe a group of patients who are likely to have had significant direct experience of the healthcare system in the recent past. It includes patients who met at least one of the following criteria:

- Described their overall health as fair or poor
- Received medical care in the previous year for a serious or chronic illness, injury or disability
- Hospitalised in the previous two years (for any reason other than childbirth)
- Had surgery in the previous two years.

Stroke (or cerebrovascular accident) – The sudden death of part of the brain, caused by disruption to blood flow and brain cells bring deprived of oxygen.

Vaccination – Injection or ingestion of an agent that resembles a disease-causing microorganism, often made from weakened or killed forms of the microbe or its toxins. The agent stimulates the body's immune system to recognise the agent as foreign, destroy it, and *'remember'* it, so that the immune system can more easily recognise and destroy any of these microorganisms that it later encounters.

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Contributors to the report

Many Bureau and contract staff made significant contributions to *Healthcare in Focus 2011*:

- Bruce Armstrong, Chair
- Faruk Ahmed, Web Designer
- Sylvia Bell, Communications
- Sharon Hogan, Communications
- Jill Kaldor, Analyst
- Behnoosh Khalaj, Analyst
- Doug Lincoln, Analyst
- Marge Overs, Editor
- Sally Prisk, Graphic Designer
- Kim Sutherland, Researcher
- Diane Watson, Chief Executive

Download the report

The report, *Healthcare in Focus 2011: How well does NSW perform? An international comparison* and related documents are available at www.bhi.nsw.gov.au

The suite of products includes:

- The main report describes performance of the healthcare system in NSW, using almost 90 indicators. It compares NSW with Australia as a whole and 10 other countries
- *At a glance* (8 page summary document)
- *Technical Supplement: Healthcare in Focus 2011* (research methods and statistical analyses)
- *Downloadable slide library of key figures*
- *Healthcare in Focus 2010: How NSW compares internationally* (full report)

About the Bureau

The Bureau of Health Information provides the community, healthcare professionals and the NSW Parliament with timely, accurate and comparable information on the performance of the NSW public health system in ways that enhance the system's accountability and inform efforts to increase its beneficial impact on the health and wellbeing of the people of NSW.

The Bureau is an independent, board-governed statutory health corporation. The conclusions in this report are those of the Bureau and no official endorsement by the NSW Minister for Health, the NSW Ministry of Health or any other NSW statutory health corporation is intended or should be inferred.

To contact the Bureau

Telephone: +61 2 8644 2100
Fax: +61 2 8644 2119
Email: enquiries@bhi.nsw.gov.au
Postal address:
PO Box 1770
Chatswood
New South Wales 2057
Australia
Web: www.bhi.nsw.gov.au

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Please note that there is the potential for minor revisions of data in this report. Please check the online version at www.bhi.nsw.gov.au for any amendments.