

Healthcare in Focus 2015

How does NSW compare?

At a Glance



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Please note there is the potential for minor revisions of data in this report.

Please check the online version at **bhi.nsw.gov.au** for any amendments.

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The conclusions in this report are those of BHI and no official endorsement by the NSW Minister for Health, the NSW Ministry of Health or any other NSW public health organisation is intended or should be inferred.

About this report

Healthcare in Focus is an annual publication that draws on a range of data sources to build a broad picture of healthcare performance in NSW, and place it in an Australian and an international context.

International comparisons are increasingly seen as an essential part of performance measurement, helping to:

“...pinpoint specific areas where the health system is not performing as well as it could, identify countries that appear to be performing better, and prompt a search for ways to improve.”

Smith 2015, *Getting the most out of international comparison*, QualityWatch [online]

The healthcare system in NSW is complex – with responsibilities for funding, management, delivery and regulation of care shared across different layers of government; between public, private and not-for-profit sectors, and in community- and hospital-based settings.

The Commonwealth government's main responsibilities cover Medicare (the national scheme that provides free or subsidised access to services, including general practitioner services) and the pharmaceutical benefits scheme (which subsidises access to prescription medicines). The state government's responsibilities cover the management and administration of public hospitals, community and mental health services, delivery of public health, ambulance and emergency services, patient transport and public dental clinics.

In order to make fair and meaningful comparisons between different systems, all healthcare services are included in analyses – regardless of local arrangements for funding, oversight or delivery of care.

Different perspectives and types of data used in *Healthcare in Focus 2015*

- **Administrative data and medical records** provide detailed information on hospitalisations and emergency department visits
- **Survey data from patients reflect experiences of care** – describing services received, the way in which those services were delivered and outcomes of care
- **Survey data from staff and healthcare professionals** – providers of care can reflect on the organisation and coordination of services as well as answer in their role as agent and advocate for their patients.

At a Glance is a companion document to *Healthcare in Focus 2015*. It provides an overview of findings and summarises chapter results on six key dimensions of performance, through:

- A summary graph that places NSW performance alongside international comparators for all measures included in the chapter
- A summary table of measures with the NSW result; NSW ranking; the 'best' comparator country and result
- A brief description of the chapter's results
- An exemplar figure taken from the chapter.

Key findings

10 key findings

- 1 The NSW healthcare system performs well.**
- 2 A range of value for money indicators reflect positively on NSW** – potential years of life lost at a system level; average length of stay in hospitals; and sustainability in primary care are all areas of strong performance.
- 3 Over time, there have been improvements** – in emergency department (ED) timeliness measures, use of ED for primary care, and cancer survival.
- 4 Patient engagement is good in international terms** – yet only 36% of NSW GPs said they 'routinely' give chronic disease patients written instructions about how to manage their care.
- 5 Maternity care varies across performance dimensions** – mixed results in antenatal care, relatively high rates of caesarean section and mid-range results for low birthweight babies and obstetric trauma.
- 6 Less positive performance in surgery** – relatively long waiting times for elective procedures, high complication rates, and low levels of timely hip fracture surgery.
- 7 Care is not always well integrated** – NSW GPs were less positive than those from other systems about coordination of care with social services, specialists and hospitals. Levels of test duplication are relatively high.
- 8 Primary care performs relatively well** – of 25 primary care measures, NSW was highly ranked for seven – and mid-range for 15.
- 9 There are barriers to access** – NSW is in the lower quartile of comparator countries for skipped care due to cost, and 32% of people had unmet needs for out-of-hours GP care.
- 10 Results are poorer for low SES groups** – in terms of waiting times for elective surgery; five-year relative survival for prostate and colorectal cancer and potentially avoidable hospitalisations.

10 key findings expanded

1 The NSW healthcare system performs well...

Set alongside Australia and 10 other countries with high performing healthcare systems, NSW is no laggard in overall performance.

Of the 59 measures for which there are comparative data available, NSW is positioned in the upper quartile of comparator countries for 15 measures, is in the lower quartile of comparator countries for 14 measures and is within the middle two quartiles for 30 measures.

However, NSW does not sit at the forefront in any dimension of performance nor does it excel in any particular healthcare sector or clinical area. There is room to improve.

2 A range of value for money indicators are positive...

NSW performs strongly in achieving good overall outcomes for the amount of money invested in healthcare. Relative to comparator countries, NSW has lower levels of potential years of life lost, shorter average lengths of hospital stays, low levels of unnecessary diagnostic test duplication, and a low administrative burden placed on GPs.

3 Over time, performance has improved...

Over the past five years, healthcare performance in NSW has improved in emergency department (ED) timeliness measures, such as the time to start treatment and total time patients spent in the ED. There has been a decrease in the use of EDs for primary care, and improvements in cancer survival.

4 Patient engagement is relatively good but there is room to improve...

NSW is placed in the upper quartile with regards to GPs routinely giving their chronic disease patients a written plan about how to manage their own care at home. While this is a strong relative result, in absolute terms, only 36% of NSW GPs said they routinely gave written plans and 47% of patients said they had been given a written plan. Within NSW, results from five different hospital-based surveys conducted in 2013 and 2014, showed the percentage of patients who said they were 'definitely' engaged in decisions about their care and treatment ranged from 60% among adult admitted patients to 74% among cancer outpatients.

5 Performance in maternity care varies across performance dimensions...

For antenatal care, only 60% of pregnant women had their first antenatal care appointment in the initial 14 weeks of their pregnancy, almost all (96%) did however receive antenatal care five or more times during their pregnancy. Most (90%) were asked during antenatal care how they were feeling but only 60% said a health professional completely discussed their worries and fears with them. Among pregnant smokers, only 49% said they were offered programs to help them quit. Overall 32% of births were via caesarean section – a relatively high rate internationally. Within NSW, rates of elective caesarean rates are highest in private hospitals. For outcomes, NSW is mid-range internationally for low birthweight babies and obstetric trauma rates.

6 Less positive performance in surgery...

A number of indicators related to surgical care indicate a less positive position for NSW relative to other countries. NSW has longer median waiting times for common elective procedures than most other countries. It is placed in the lower quartile of comparator countries for post-surgical complication rates; and for timely provision of hip fracture surgery – despite significant improvement over the past decade.

7 Care is not always well integrated...

NSW GPs were less positive than those from other systems regarding coordination of care with social services, specialists and hospitals. NSW was in the lower quartile among comparator countries regarding duplication and waste. Among NSW GPs, 35% said their patients had to have a test or procedure repeated because results were unavailable – and 9% of patients said that doctors ordered a medical test that they felt was unnecessary because it had already been done.

8 Primary care performs relatively well...

Of the 25 measures of primary care, NSW is in the upper quartile of comparator countries for seven, mid-range for 15, and in the lower quartile for three. Lower quartile results focused on childhood vaccinations, coordination with social services, and chronic obstructive pulmonary disease hospitalisations.

Appropriateness measures featured areas of strong performance. For four out of 10 primary care appropriateness measures, NSW was highly ranked.

Most NSW GPs reflected positively on their practice – 87% said it is well prepared to manage care for patients with multiple chronic conditions. However less than half said they are well prepared to manage patients with dementia (46%), severe mental health problems (33%) or substance abuse issues (16%).

GPs in NSW were less likely to say their practice routinely uses methods to share information electronically (other than test orders).

9 There are barriers to accessing healthcare...

NSW tends to perform better than certain countries such as Canada, France and the United States on access but is consistently outperformed by the Netherlands and the United Kingdom. There are barriers to access – NSW is placed in the lower quartile for skipped care due to cost and a NSW survey showed that 32% of adults said they had unmet needs for out-of-hours primary care.

10 Results are poorer for low SES groups...

Among patients who received non-urgent elective surgery in public hospitals, those from low socioeconomic status (SES) areas were more likely to be treated in hospitals with longer median waiting times. Overall, the median waiting time for patients living in low SES areas was almost 100 days longer than for patients living in high SES areas. Five-year relative survival for a range of cancers in NSW was higher among people from high SES areas. While five-year relative survival has improved over time, socioeconomic differences in survival persist. There were however no significant differences across SES groups in patients' responses to survey questions on: whether they were treated with respect, were involved in decisions about their discharge, and had their home situation taken into account when planning their discharge.

Detailed results for 130 measures, assessing NSW in terms of the six key dimensions of healthcare performance, are available in the main report *Healthcare in Focus 2015*.

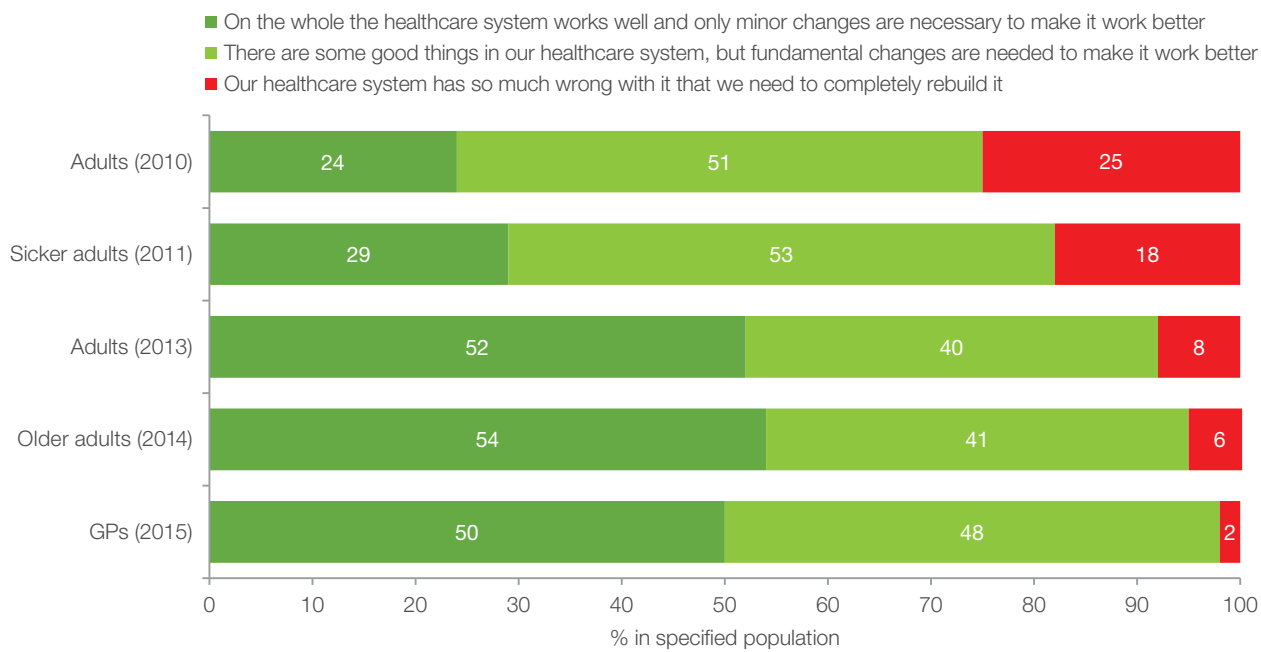
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Overall views of performance

The Commonwealth Fund International Health Policy Survey each year asks respondents about their overall views of the healthcare system, and the extent of change required. Across different respondent groups in NSW, there has been a marked and sustained decrease in those saying the system needs to be completely rebuilt. For NSW patients, the percentage with positive views has doubled since 2010.

The two most recent surveys have sought the views of patients (2014) and general practitioners (GPs) (2015). Around half of all respondents in NSW said the healthcare system works well. Internationally, this placed NSW fifth out of 12 comparators from a GP perspective and fourth out of 12 comparators from a patient perspective.

NSW results, The Commonwealth Fund International Health Policy Survey, different population groups, 2010 to 2015



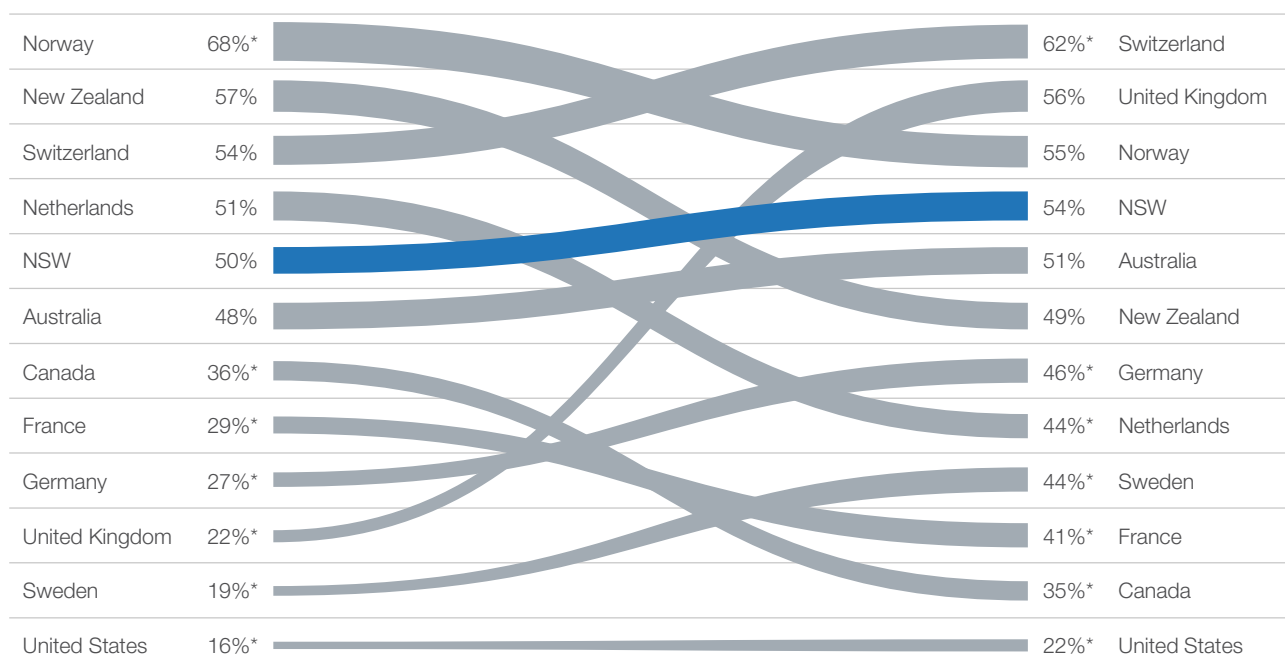
Provider and patient perspectives: Percentage who said healthcare system works pretty well, NSW and comparator countries, 2014 and 2015

GP perspective (2015)

On the whole the healthcare system works pretty well and only minor changes are necessary

Patient perspective (2014)

On the whole the healthcare system works pretty well and only minor changes are necessary



Sources: 2015 Commonwealth Fund International Health Policy Survey of Primary Care Providers, 2014 Commonwealth Fund International Health Policy Survey of Older Adults.
 * Estimate statistically significantly different to NSW.

Dimensions of performance

Because healthcare is complex, performance assessment requires a framework to guide and structure a systematic and balanced approach. BHI uses a framework that has six key dimensions of performance.

Each dimension addresses key questions:

Accessibility: Healthcare, when and where needed: Are patients' and populations' needs met; how easy is it to obtain healthcare?

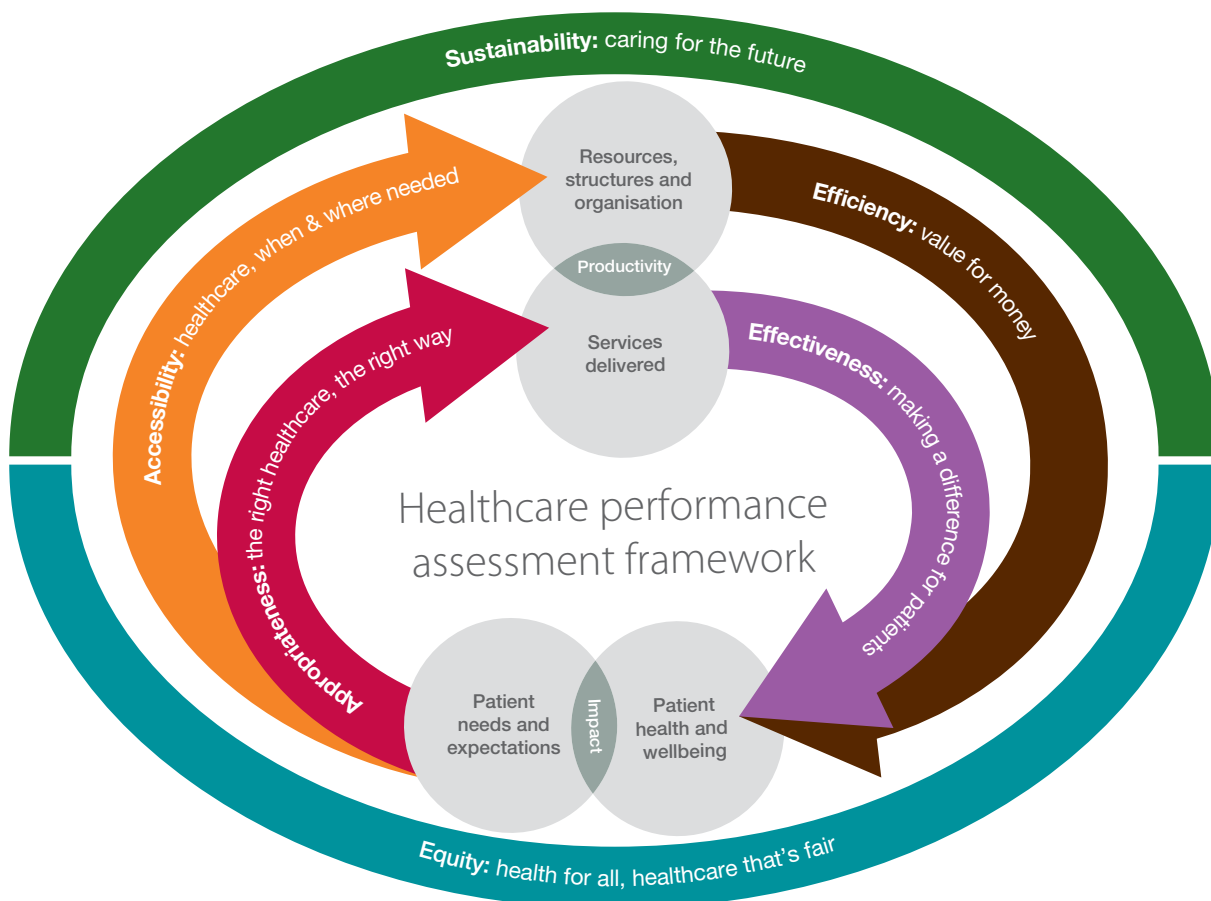
Appropriateness: The right healthcare, the right way: Are evidence-based and guideline-compliant services provided in a technically proficient way? Are the services provided responsive to patients' expectations and needs?

Effectiveness: Making a difference for patients: Are healthcare services addressing patients' problems and improving their health?

Efficiency: Value for money: Are healthcare services providing good value for the resources invested? Are there areas of duplication or waste?

Equity: Health for all, healthcare that's fair: Is healthcare provided without discrimination on the basis of gender, age, race or other demographic factors? Is healthcare distributed fairly? Does everyone have the opportunity to reach their full health potential?

Sustainability: Caring for the future: Is the system adapting to changing needs and expectations of patients, and to changing circumstances?





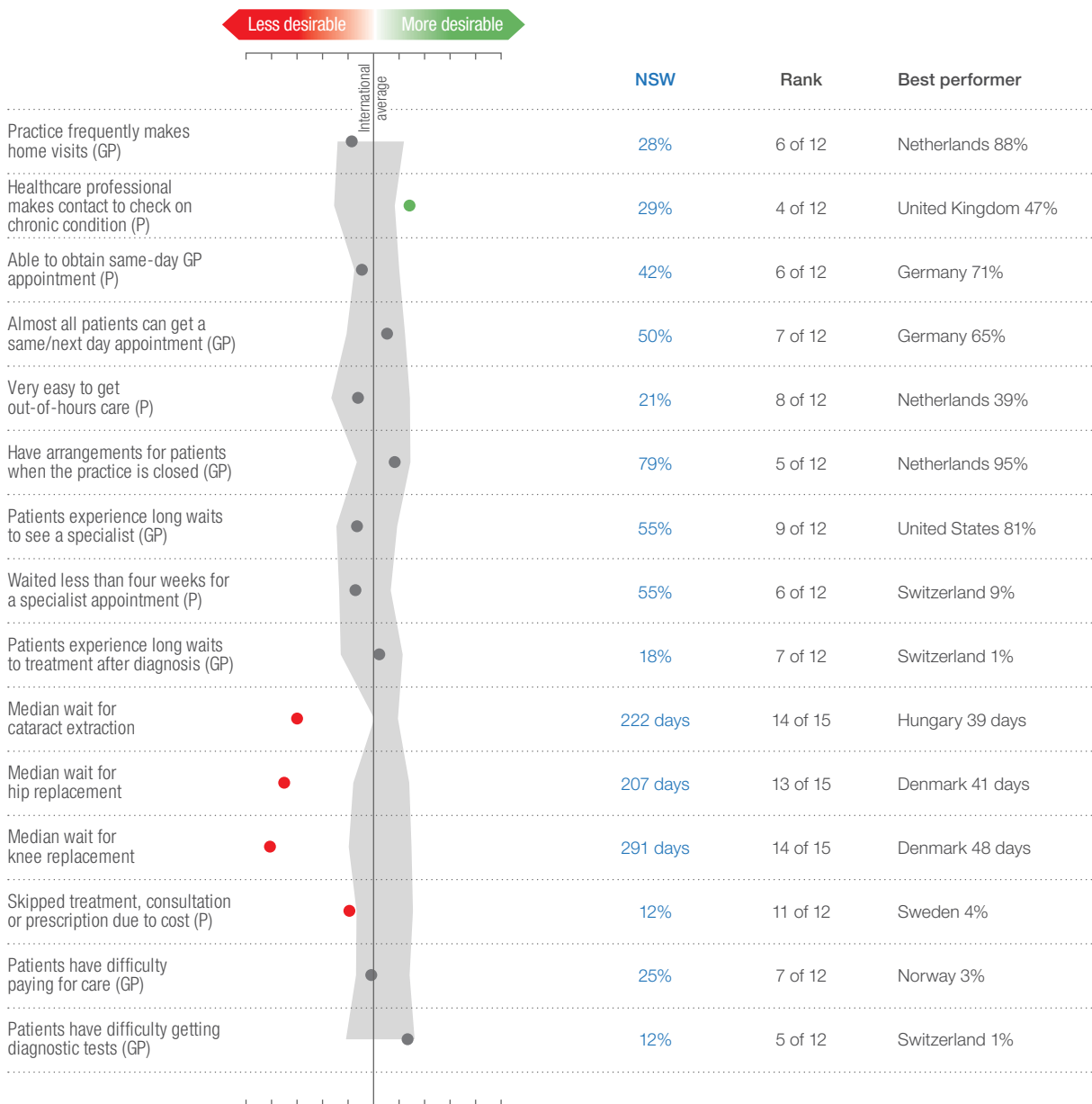
Accessibility

Healthcare, when and where needed

Accessibility refers to the degree to which patients can obtain healthcare services when and where they need them. It reflects the availability and approachability of healthcare services, along with consideration of whether the costs to patients in terms of time, effort or money are onerous or unreasonable.

Measurement focuses on the relative rates of service use, unmet needs, and on perceived barriers that disrupt or prevent patients from accessing healthcare.

Accessibility measures: NSW compared



● NSW ■ Range between bottom 25% and top 25% for available countries

(P) Patient population survey (GP) GP survey

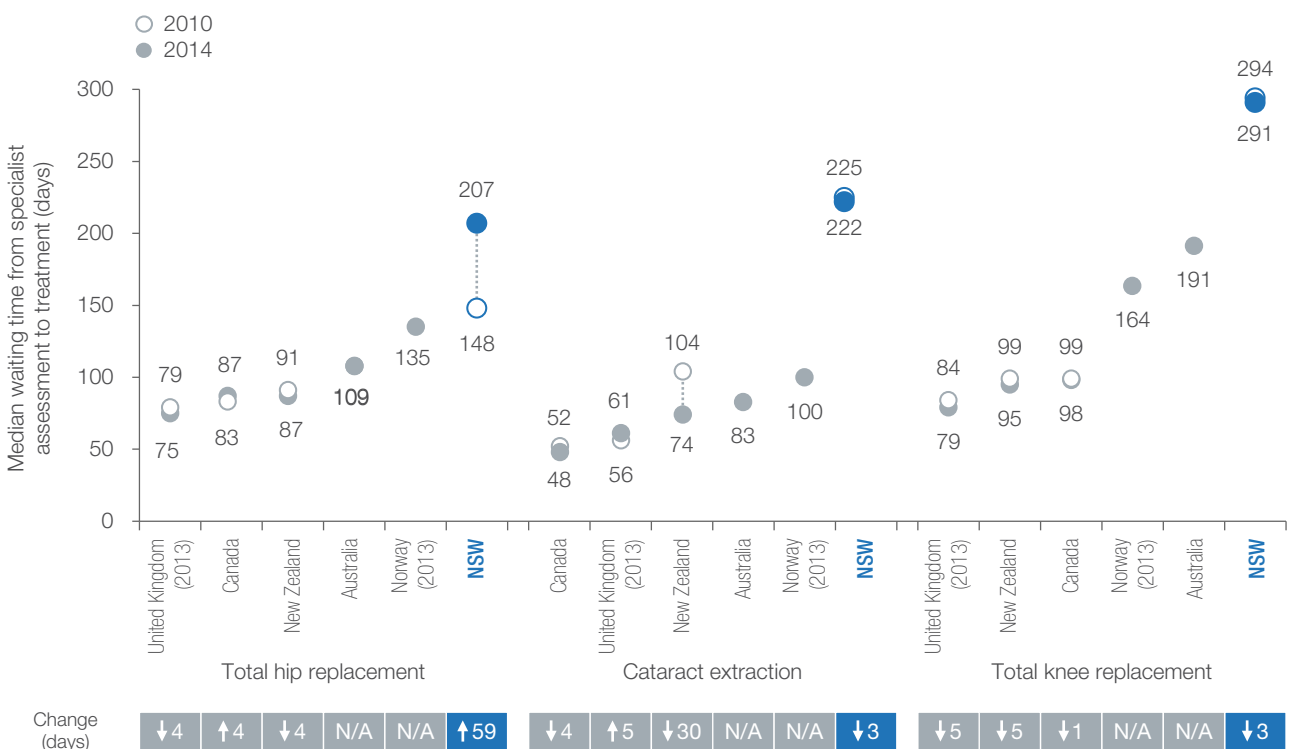
Accessibility: At a glance

Most people in NSW have access to healthcare – almost everyone has a regular GP or clinic, and public hospitals are open to all. However, services are not always provided when and where needed – among NSW people who needed to see a GP in 2014, 15% said they did not do so.

Care is not always timely. Although 97% of elective surgical procedures in public hospitals were performed within clinically recommended timeframes in 2014, median waiting times for cataract extractions and hip and knee replacements were substantially longer in NSW than in comparator countries.

There are barriers to care – 25% of GPs said their patients ‘often’ have difficulty paying for medications or other out-of-pocket costs.

Median waiting time for selected common elective surgical procedures, public hospitals, NSW and comparator countries, 2010 and 2014 or nearest year



* Graphs featured in *Healthcare in Focus 2015* compare NSW performance with the 11 countries that participate in the Commonwealth Fund International Health Policy Survey. For the broader international comparisons that are summarised on the opposite page, all OECD countries with available data are used. The OECD data are accessible at oecd.org/els/health-systems/health-data.htm



Appropriateness

The right healthcare, the right way

Appropriateness refers to the extent to which patients receive services that respond to their health needs, social circumstances and their reasonable expectations regarding how they want to be treated and cared for.

There are two main types of appropriateness measures. The first type focuses on whether healthcare services provided to patients were in line with best-practice models of care – was ‘the right care’ delivered? The second type focuses on patient experiences – was healthcare provided in ‘the right way’?

Appropriateness measures: NSW compared



Appropriateness: At a glance

NSW is consistently a high achiever in interpersonal elements of patient care, such as communication and respect. However, for measures of coordination of care, NSW is outperformed by many comparator countries.

The right care is provided to many patients but there is scope for better performance. Fewer one-year-old children (91%) were fully vaccinated against diphtheria, tetanus and whooping cough, than in any other comparator country. A lower percentage of NSW people were screened for various types of cancer than in other countries and Australian states.

Only 60% of pregnant women in NSW had their first antenatal care appointment in the initial 14 weeks of their pregnancy – a lower percentage than in other Australian states except Victoria. Almost all pregnant women in NSW (96%) did however receive antenatal care five or more times during their pregnancy – a higher percentage than most other Australian states.

More than a quarter of NSW patients who underwent hip fracture surgery (27%) did not have their operation within the recommended two days of hospital admission.

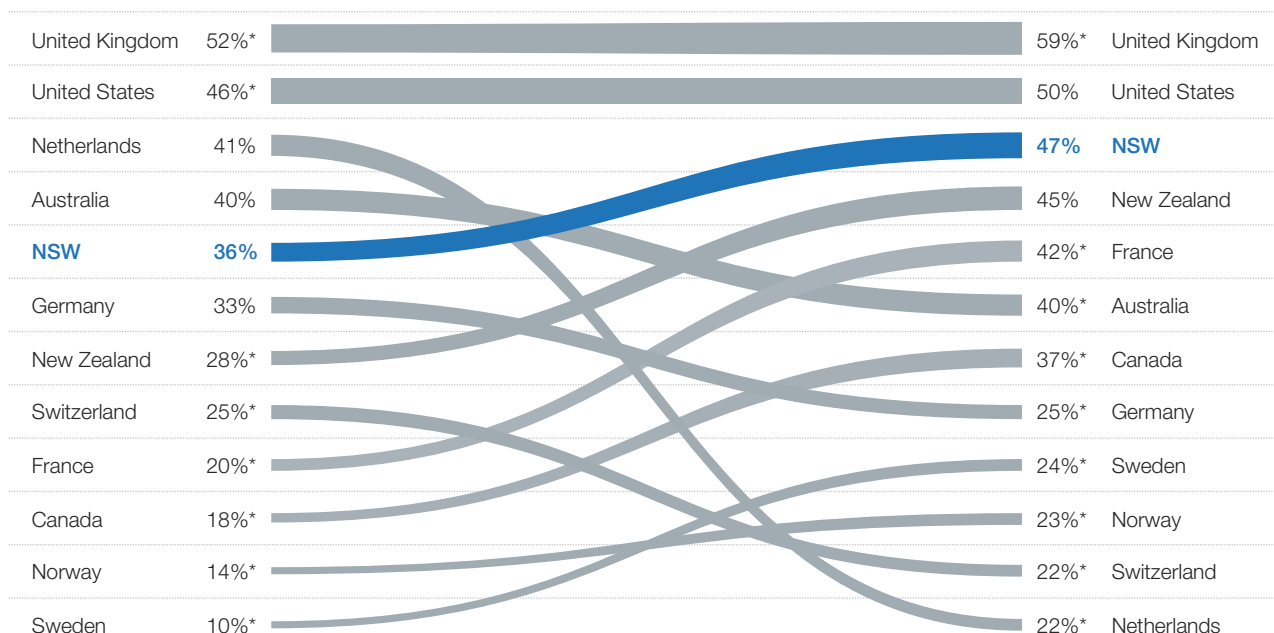
Provider and patient perspectives: Percentage saying there was a written plan to support patient engagement, NSW and comparator countries, 2014 and 2015

GP perspective (2015)

Patients with chronic conditions are 'routinely' given written instructions about how to manage their own care at home

Patient perspective (2014)

During the past year, a healthcare professional gave chronic disease patient a written plan to help manage care



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Effectiveness

Making a difference for patients

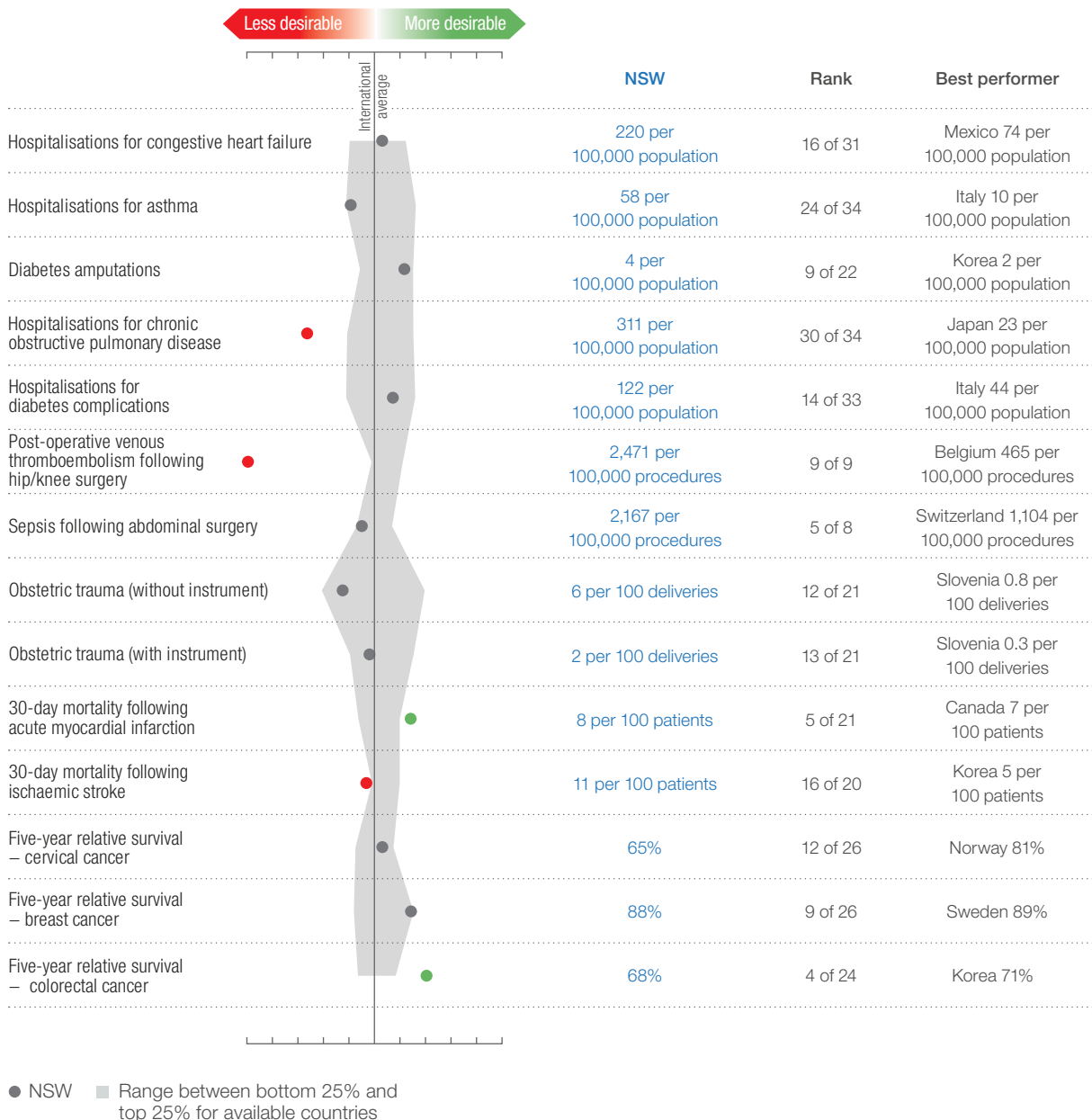
Effectiveness refers to the extent to which healthcare services deliver the benefits expected from them. For example, do they reduce the incidence, duration, intensity or consequences of health problems?

Effectiveness is closely aligned to the concept of impact which assesses more broadly the extent to which a patient's overall health and wellbeing are affected by the care they receive.

Effectiveness at a system level reflects overall views and judgements about how well the healthcare system achieves its stated goals.

Effectiveness at a patient level reflects both the outcomes of treatment – such as mortality, unplanned readmissions, changes in functional status, and quality of life and wellbeing – as well as patients' ability to realise the potential benefits of treatment, through increased health literacy and self-efficacy at managing their health problems.

Effectiveness measures: NSW compared



Effectiveness: At a glance

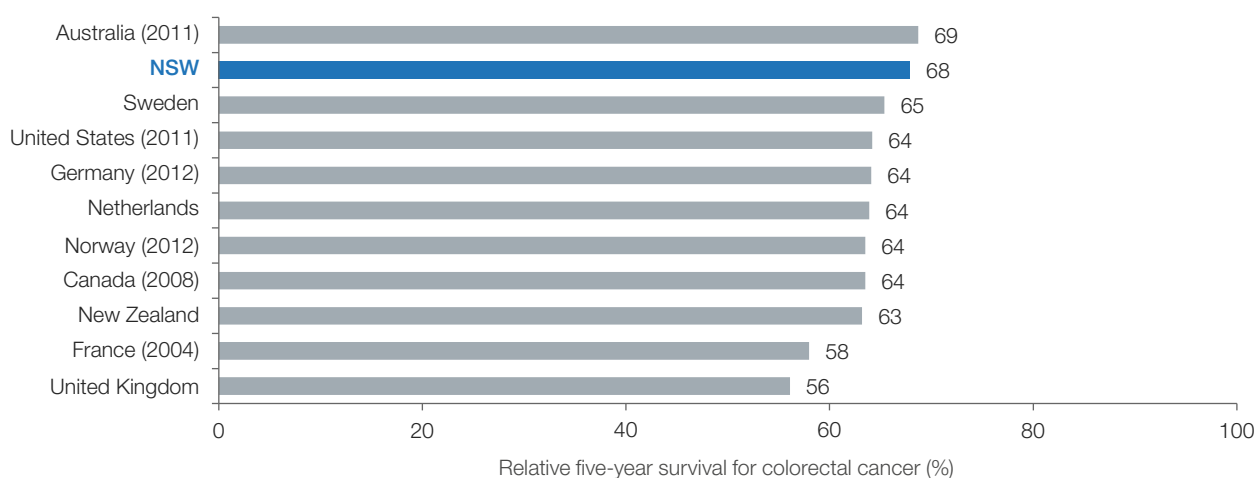
Healthcare makes a difference – 76% of admitted patients said the care and treatment they received ‘definitely’ helped them.

Five-year relative survival among people with colorectal cancer in NSW (68%) is higher than in comparator countries; while for people with breast and cervical cancer in NSW, five-year relative survival is similar to most other countries (88% for breast cancer and 65% for cervical cancer).

Relative to comparator countries, NSW has high hospitalisation rates for diabetes and chronic obstructive pulmonary disease (COPD), pointing to opportunities to improve ambulatory chronic disease care and reduce the need for hospitalisation.

A small proportion of NSW surgical patients experience post-operative complications. For example, about 2% of patients undergoing hip and knee replacements suffer a venous thromboembolism; and 2% of abdominal surgery patients develop sepsis. These rates are however higher in NSW than in comparator countries.

Five-year relative survival, colorectal cancer, NSW and comparator countries, follow-up until 2013 (or nearest year)



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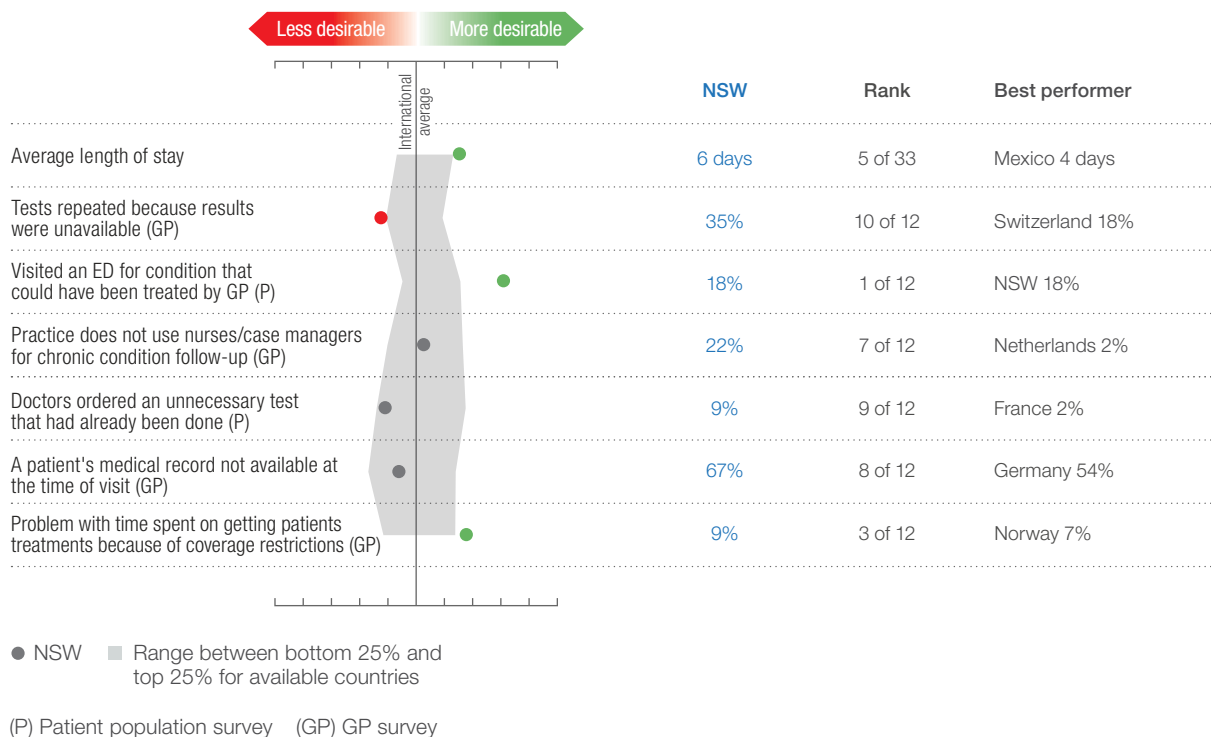
Efficiency

Value for money

Efficiency refers to the extent to which healthcare makes the best use of available resources. It also relates to productivity, which is a measure of goods and services delivered per unit of resource. This acknowledges that a system or organisation that achieves more valued outcomes for each dollar or human resource invested is performing better, but that more services in isolation are not necessarily desirable.

Efficiency can be assessed by measuring volumes of outputs or services delivered relative to the resources invested. It can also be captured by measures of duplication or waste. At a system level, efficiency reflects health outcomes by the resources invested.

Efficiency measures: NSW compared



Efficiency: At a glance

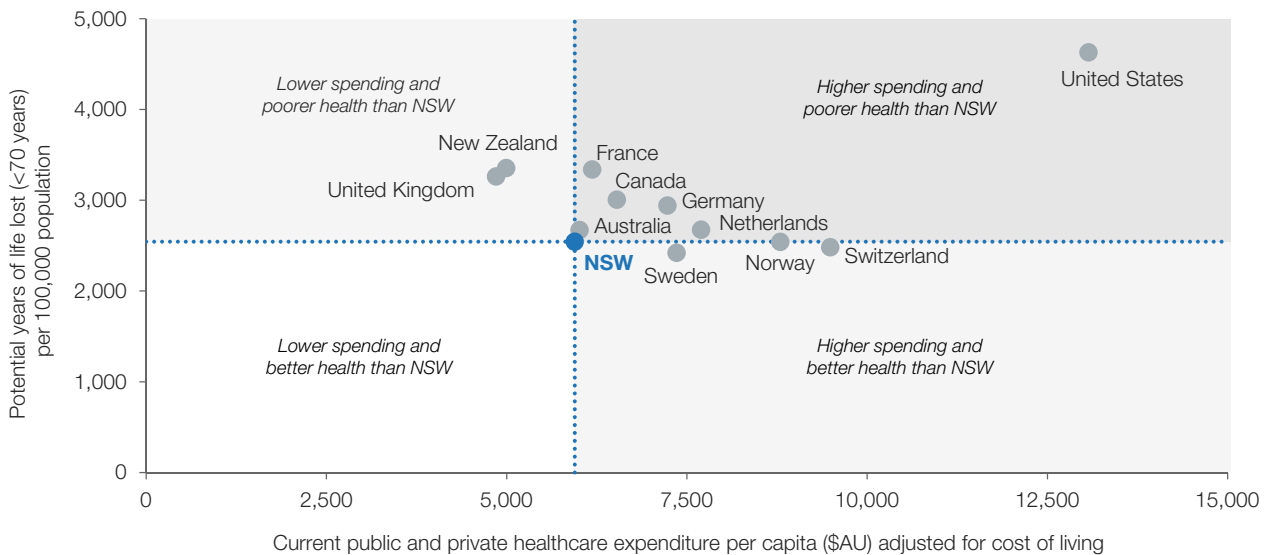
The healthcare system in NSW provides value for money. Total expenditure on health in NSW – from all sources – equates to \$5,944 per person. The United States spends over twice as much (\$13,070), and the United Kingdom 20% less (\$4,852) per person. The average length of stay in NSW hospitals (public and private) is 5.8 days – shorter than in most comparator countries.

However, treatments of low value continue to be provided to patients. Knee arthroscopy – now recognised as providing no net benefit to people aged 50+ years – was performed on 11,377 NSW patients aged 50+ years in 2013. Between 2004 and 2014, the number of arthroscopies performed on people in this

age group increased by 10% (5% decrease in public hospitals and 14% increase in private hospitals).

Matching staff with tasks suited to their skills and experience is also an indicator of efficiency. Among NSW GPs, 21% said the time they spend on administrative tasks relating to claiming payments is a ‘major problem’.

Current public and private health spending per person adjusted for cost of living, by potential years of life lost, NSW and comparator countries, 2013 or nearest year



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Equity

Healthcare for all, healthcare that's fair

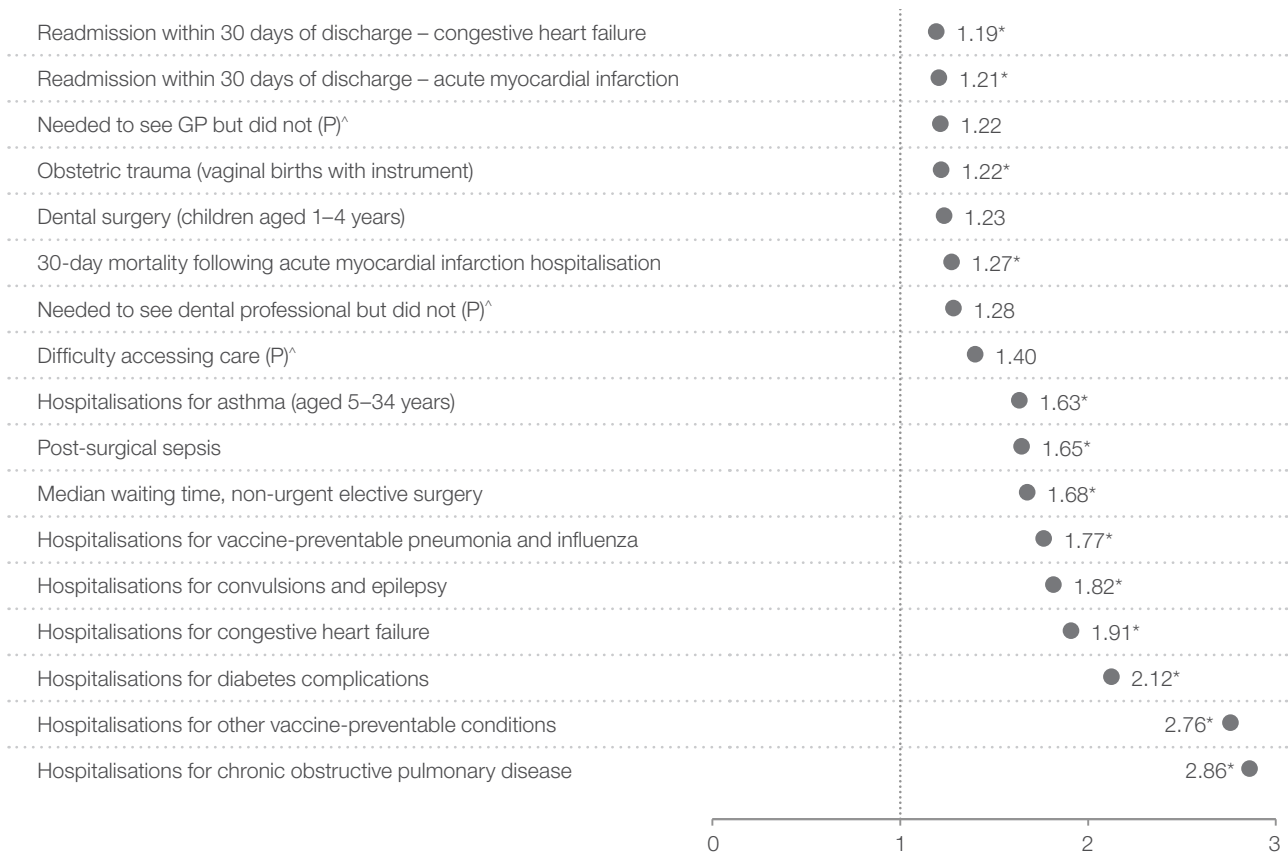
Equity refers to the extent to which health and healthcare is distributed fairly across society. However because fairness is difficult to quantify, equity is often defined and measured by the absence of systematic differences – or disparities – between social groups.

Disparities can be measured in terms of health status and wellbeing; or in terms of performance constructs of accessibility, appropriateness and effectiveness of healthcare services.

About SES quintiles

The ABS defines socioeconomic disadvantage in terms of people's access to material and social resources as well as their ability to participate in society. *Healthcare in Focus* compares healthcare performance across quintile groups based on the Index of Relative Socioeconomic Disadvantage of the postcode of residence.

Equity: Ratios of low to high socioeconomic status groups, NSW



* Estimate for low SES group was statistically significantly different to the high SES group.

[^] Not tested.

Note: A ratio less than one indicates the measure was less likely in the low SES group than in the high SES group; and a ratio greater than one indicates the measure was more likely in the low SES group than in the high SES group. Results shown include ratios of approximately 1.2 or higher.

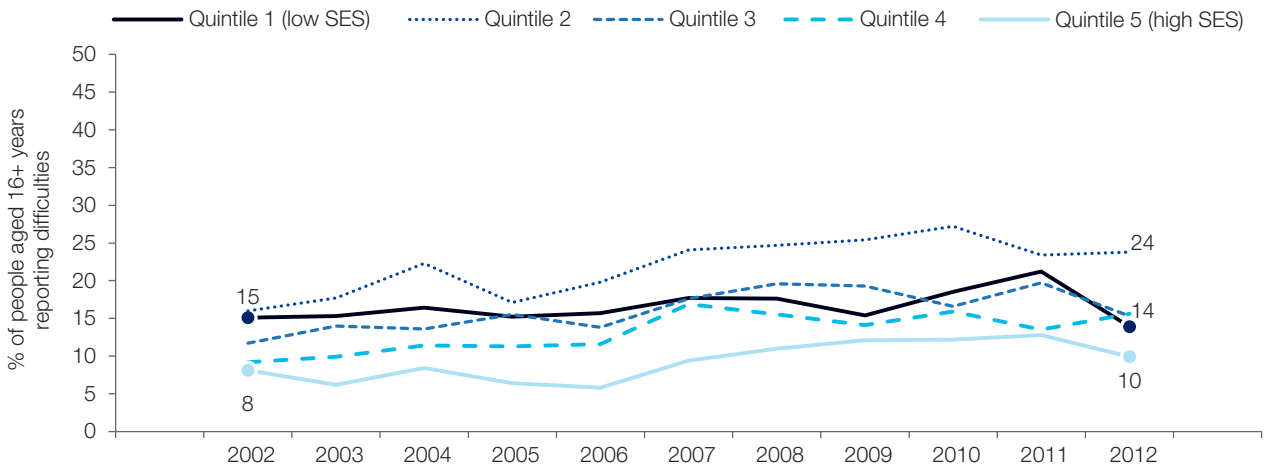
Equity: At a glance

Considering equity in terms of socioeconomic status (SES), important disparities are revealed. While 16% of NSW people aged 16+ years said they had difficulty accessing healthcare when needed, this ranged from 10% for people living in quintile 5 areas (highest SES) to 24% in quintile 2 areas (second lowest SES).

Among patients who underwent a non-urgent elective surgical procedure in public hospitals, those from low SES areas had median waiting times that were almost 100 days longer than patients from high SES areas.

Five-year relative survival for a range of cancers in NSW was higher among people from high SES areas. There were however no significant differences across SES groups in patients' responses to survey questions about respectfulness and patient involvement in decisions about discharge.

Percentage of people who said they had difficulty accessing healthcare, by socioeconomic status, NSW, 2002 to 2012



Source: Centre for Epidemiology and Evidence, Health Statistics NSW, Sydney: NSW Ministry of Health. Available at healthstats.nsw.gov.au



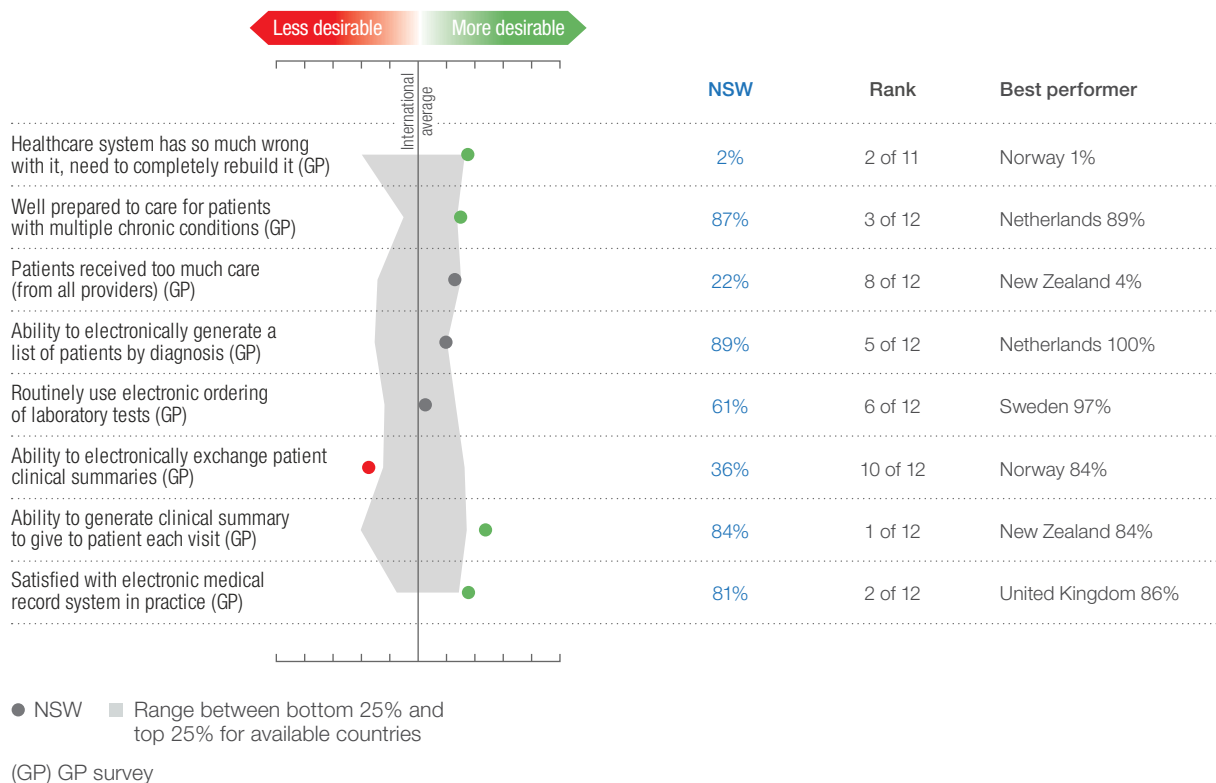
Sustainability

Caring for the future

Sustainability refers to the extent to which healthcare systems function in ways that meet patients' current health and healthcare needs without compromising the ability to meet needs in the future. Sustainable systems adapt to changing circumstances, constraints, opportunities and demands.

There are very few direct measures of sustainability, and so assessment often focuses on process measures particularly those that measure use of interventions that have been proven to improve efficiency, impact and productivity.

Sustainability measures: NSW compared



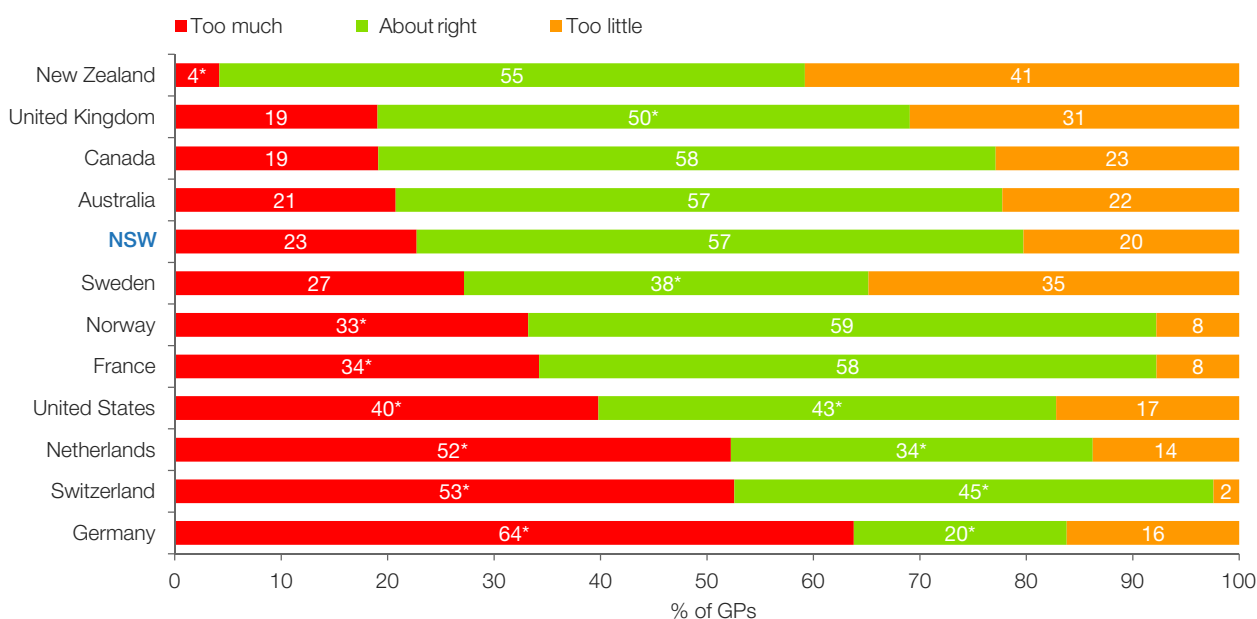
Sustainability: At a glance

Among NSW GPs, 22% said their patients receive too much healthcare (from all sources of care).

Most GPs (87%) said their practice is 'well prepared' to manage care for patients with multiple chronic conditions, but less than half said it is 'well prepared' to manage patients with dementia (46%), severe mental health problems (33%) or substance abuse

issues (16%). The percentage of NSW GPs who said their practice 'routinely' uses methods to share information electronically (other than test orders) was low compared to other countries.

Percentage of GPs by views on volume of care their patients receive from all providers, NSW and comparator countries, 2015



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Measures included in Healthcare in Focus 2015

Overall views of performance

How does NSW perform overall? Extent of change needed in healthcare system, GP and patient perspectives

Chapter 1: Accessibility – Healthcare, when and where needed

Getting timely appointments for primary care	Availability of same- or next-day appointments Waited longer than acceptable to get appointment, services not available when needed
Accessing primary care out-of-hours	GPs who said that their practice makes home visits Access to primary care out-of-hours
Starting treatment in the emergency department	ED patients who said they were triaged within 15 minutes of arrival Treatment started within recommended time (states and territories), median time to treatment
Time spent in emergency department	Visits for which patients spent four hours or less in the ED, by admission status ED patients who said they were delayed when leaving the ED and reasons for delay
Waiting for specialist care	Waiting times to see specialist, GPs perceptions about patients' waiting times to treatment Patients who said the time they waited to be admitted to hospital was 'about right'
Waiting for elective surgery	Median waiting time for selected common elective surgical procedures Elective surgical procedures performed on time and number of procedures performed
Difficulties accessing healthcare	GPs who said their patients had difficulty getting specialised diagnostic tests People who reported unmet need for GP, specialist and dental services
Delaying or skipping care due to cost	GPs who said patients experienced difficulty paying for medications or other out-of-pocket costs Difficulty paying or foregoing care due to cost

Chapter 2: Appropriateness – The right healthcare, the right way

Preventive care: Vaccination and cancer screening	Uptake of selected vaccinations, provision of reminders for delivery of preventive care Breast, cervical and colorectal cancer screening
Maternity care: Antenatal care and births	Duration of pregnancy at first antenatal visit, five or more antenatal visits Mothers who had a caesarean section, type of birth
Surgical care: Hip fracture surgery	Hip fracture surgical procedures that were performed within two days of hospital admission
Stroke rehabilitation care: Organisational capacity	Organisational audit, adherence to essential elements of stroke services
End of life care	Conversations about end of life care ED visits and hospitalisations in the last 30, 180 and 365 days of life
Engaging patients: Managing care at home	Written plan to support patients with chronic conditions Information provision about hospital discharge, patient engagement
Coordinating care for patients: Using systems to link services	Coordination of care following discharge from hospital GP measures of care coordination
Keeping patients safe: Hand hygiene	Staff complying with hand hygiene, patients who saw nurses clean their hands
Keeping patients safe: Medication management	GPs use of electronic alerts about a potential problem with drug dose or drug interaction Patients reporting a medical mistake was made in their care, told about medication side effects

Chapter 3: Effectiveness – Making a difference for patients

Outcomes for patients with diabetes	Diabetics with controlled blood sugar levels Age-sex standardised rates for diabetes-related lower extremity amputation
Outcomes for patients with CHF or COPD	Risk-standardised rate of readmission within 30 days Risk-standardised rate of 30-day mortality
Outcomes for patients with cancer	Potential years of life lost due to malignant neoplasms Five-year relative survival for breast, colorectal and cervical cancer

Outcomes and adverse events in maternity care	Babies with low birthweight Rates of obstetric trauma
Adverse events post-surgery	Post-operative rates of: sepsis, deep vein thrombosis and pulmonary embolism Rates of foreign body left in during surgical procedure
Patient-reported outcomes of care	Patients said care 'definitely' helped them, ED and hospital Patients said the problem they went to hospital for was 'much better'
Patient-reported complications of care	Patients reporting any complication and impact of complication, ED and hospital

Chapter 4: Efficiency – Value for money

Value for money	Healthcare expenditure per capita, by potential years of life lost
Cost of hospitalisations and ED visits	Average cost of an ED visit by admission status Recurrent cost per hospitalisation and per maternity separation
Average length of stay (ALOS)	ALOS, ALOS per birth, relative stay index
Providing care in the right setting	Bed days for: Maintenance patients, hospital-in-the-home ED visits classified as 'GP-type' visits
Optimising the use of resources	GP/clinic did not use personnel to manage care for patients that need regular follow-up GP/clinic had major problems with amount of time spent on administrative tasks
Duplication and waste	Tests had been repeated, results were not available at the time of the patient's visit Number of knee arthroscopy procedures

Chapter 5: Equity – Health for all, healthcare that's fair

Disparities in accessibility: Unmet need	People who said they had: difficulty accessing healthcare, unmet needs for care Hospitalisations in children related to removal and restoration of teeth
Disparities in accessibility: Timeliness	Timeliness in elective surgery and ED
Disparities in appropriateness	Patients receiving hip fracture surgery within two days, patient experience measures
Disparities in effectiveness: Avoiding hospitalisations for chronic conditions	People with three or more ED visits or hospitalisations in a year, asthma hospitalisations, hospitalisations for select chronic and vaccine-preventable conditions
Disparities in effectiveness: Readmissions, mortality and survival	Risk standardised readmission/mortality rate for COPD, CHF and AMI Five-year relative survival, by type of cancer
Disparities in effectiveness: Complications	Rates of post-operative complications, obstetric trauma Adult admitted patients experiencing a complication and impact of the complication

Chapter 6: Sustainability – Caring for the future

GP views on overall quality and quantity of care	GPs perceived changes in quality of care their patients receive, need for complete system rebuild GP views on volume of care their patients receive from all providers
An increasing demand for healthcare	ED visits and hospitalisations by age group, hospitalisations by disease group
Patients with high levels of healthcare service use	Frequency of ED visits, hospital admissions and bed days Providers who said their place of care is well-prepared to manage care
Literacy and patient engagement	Mean literacy score, adults by literacy skill level Admitted patients' involvement in decisions about their care
Healthcare resourcing	Total healthcare expenditure as a percentage of Gross Domestic Product Nurses and doctors per 100,000 population Providers who consider costs to healthcare system when making treatment decisions
Electronic and technology support	GPs who said they are satisfied with electronic medical record system GPs who said their practice has the ability to generate information electronically
Staff engagement	NSW Health employees views on meeting future challenges (NSW)

About the Bureau of Health Information

The Bureau of Health Information (BHI) is a board-governed organisation that provides independent information about the performance of the NSW public healthcare system.

BHI was established in 2009 to provide system-wide support through transparent reporting.

BHI supports the accountability of the healthcare system by providing regular and detailed information to the community, government and healthcare professionals. This in turn supports quality improvement by highlighting how well the healthcare system is functioning and where there are opportunities to improve.

BHI manages the NSW Patient Survey Program, gathering information from patients about their experiences in public hospitals and other healthcare facilities.

BHI publishes a range of reports and tools that provide relevant, accurate and impartial information about how the health system is measuring up in terms of:

- Accessibility – healthcare when and where needed
- Appropriateness – the right healthcare, the right way
- Effectiveness – making a difference for patients
- Efficiency – value for money
- Equity – health for all, healthcare that's fair
- Sustainability – caring for the future

BHI's work relies on the efforts of a wide range of healthcare, data and policy experts. All of our assessment efforts leverage the work of hospital coders, analysts, technicians and healthcare providers who gather, codify and report data. Our public reporting of performance information is enabled and enhanced by the infrastructure, expertise and stewardship provided by colleagues from NSW Health and its pillar organisations.

bhi.nsw.gov.au