

## The Insights Series

# Healthcare performance across the life span

Volume 2: Utilisation and experiences of care of  
children and young people aged 0–17 years



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# Foreword

Measuring how well healthcare is provided to children and young people is important. It is important because the benefits of good care at an early stage of life can last a long time; and the consequences of poorer care can have repercussions as children grow older. The healthcare needs of children vary as they grow from infancy, through childhood and into adolescence. These changing needs, together with the concerns of parents and carers who help navigate the healthcare system and make decisions on behalf of children, make this a complex and sensitive group for the delivery of effective and appropriate care.

In addition, it is often during childhood or teenage years that the first contacts with various components of healthcare systems are made. For children, a visit to the emergency department or admission to hospital is a very different experience to that of an adult. Hospitals can be daunting and confronting for a child who is suffering ill health. Younger people are more vulnerable and less able to advocate for how they wish to receive care.

There are three public children's hospitals in New South Wales — Sydney Children's Hospital, Randwick, The Children's Hospital at Westmead and John Hunter Children's Hospital — that provide tertiary level, specialist paediatric treatment and care for infants, children and adolescents. These hospitals provide services that are complementary to those provided to children and young people in non-paediatric hospitals that also serve the adult population.

This report provides the first assessment of how specialist paediatric hospitals and non-paediatric hospitals in NSW deliver care for children of various ages. It draws on different data sources to explore how children and young people, from the very beginning of life through to 17 years of age, use public hospitals and provides insights into their self-reported experiences of care.

The report presents information about hospitalisations, emergency department visits and volumes of elective surgical procedures to examine patterns of use across each age group. This information is complemented with patient's views of their own experiences of care in specialist paediatric and non-paediatric hospitals in NSW. In addition, the report describes the flow of children and young people to hospitals within and across local health districts in NSW, as well as to the specialist paediatric hospitals.

The Bureau of Health Information has collaborated with NSW Kids and Families, now the Office of Kids and Families, to further the understanding of the patterns and experiences for children and young people in the NSW health system. The report complements the first volume of this publication – Healthcare performance across the life span – released in 2015, which looked at how adults aged 55+ years utilise and experience the health system in NSW. Together, these reports are helping to build a comprehensive picture of healthcare performance in NSW.

**Dr Jean-Frédéric Lévesque**

Chief Executive, Bureau of Health Information

# Summary

Almost every one of the 1.7 million children and young people who live in NSW connects in some way with the healthcare system. Most children are born in hospital and receive regular healthcare in their early years. Generally, children in NSW are healthy but they often experience short or recurrent episodes of acute illnesses or accidental injuries.

This report focuses on how children interact with the hospital-based healthcare system, exploring patterns of use and experiences of care in a one year period.

Children undergo rapid and continuous development – physically, cognitively, emotionally and socially. This means that health issues, and the type and delivery of healthcare services change as children transition from birth to young adulthood. In line with these developmental changes, this report provides results in four separate age groups (0–12 months; 1–4 years; 5–12 years; 13–17 years) as well as for the 0–17 year age group as a whole.

*Healthcare performance across the life span, Volume 2* includes information about three different types of healthcare services provided to children and young people: emergency department (ED) visits, hospital admissions and elective surgery.

The report examines patterns of patient flow, looking at where children receive services across NSW in relation to their local health district (LHD) of residence. It explores differences in health service utilisation and experiences of care across age groups as well as between non-paediatric and specialist paediatric hospitals (Sydney Children's Hospital, Randwick, The Children's Hospital at Westmead and John Hunter Children's Hospital).

## Use of emergency departments

- In 2013–14, children and young people made 628,065 visits to a NSW public hospital ED. Overall, 24% of those aged 0–17 years visited an ED at least once during the year. Across age groups, babies aged 0–12 months were most

likely to receive care at an ED, 44% visited an ED at least once in their first year of life

- A small number of children and young people have high levels of ED use — 3% of all 0–17 year olds (48,834) visited an ED three or more times in the course of the year, altogether accounting for 191,829 visits
- For babies aged 0–12 months, 'diseases of the respiratory system' were the most common reason for ED visits while for children aged 1–17 years, 'injury, poisoning and other external causes' was the most common reason
- Among ED visits made by 0–17 year olds, 18% were to specialist paediatric hospital EDs
- The youngest age group (0–12 months) had the longest median waiting times to start ED treatment across triage categories 2, 3 and 4
- Among children (0–17 years) who were treated and discharged home, 89% spent less than four hours in the ED, compared with 48% of those who were treated and admitted to hospital.

## Experiences of care in emergency departments

- Overall, ED care received by children and young people was rated as 'very good' by 53% of respondents and 'good' by 35%
- In general, parents of younger children reflected less positively on experiences of ED care than parents of older children
- More than eight in 10 parents said their child was 'always' treated with respect and dignity (83%); and that ED staff were 'always' polite and courteous (88% for doctors; 84% for nurses)
- The majority of children (67%) were 'definitely' helped by the care they received in the ED
- For six out of 72 survey questions, EDs in specialist paediatric hospitals were rated more

positively than EDs in non-paediatric hospitals – for example, whether parents would ‘speak highly’ of the ED; whether they ‘always’ had confidence and trust in doctors; and whether reception staff were ‘definitely’ polite and courteous.

## Use of hospitals

- In 2012–13, among children aged 0–17 years, there were 115,751 acute overnight admissions to NSW hospitals (public and private)
- Overall, 5% of NSW children and young people aged 0–17 years were admitted to hospital at least once during the year
- Babies were more likely to be admitted than older children, 15% of those aged 0–12 months were admitted to hospital at least once in their first year of life
- A very small group of patients had high levels of hospitalisation – 0.2% of all 0–17 year olds (4,733) were hospitalised three or more times in the year, and altogether they spent 105,578 days in hospital (31% of the total number of bed days used by the 0–17 years age group)
- ‘Diseases of the respiratory system’ and ‘injury, poisoning and other external causes’ were the most common reasons for hospitalisation
- Across NSW, almost three in 10 hospitalisations for children and young people (27%; 31,556 hospitalisations) occurred in specialist paediatric hospitals.

## Experiences of care in hospitals

Overall, hospital care was rated as ‘very good’ by 63% of respondents and ‘good’ by 31%. Parents of younger children were less positive in their ratings of hospital care

- Seven in 10 parents (69%) said they were ‘definitely’ involved as much as they wanted to be in decisions about their child’s care

- The majority of children and young people (81%) were ‘definitely’ helped by the care and treatment they received in hospital, and most parents said they ‘always’ had confidence and trust in the doctors treating their child (78%)
- For four out of 65 survey questions, specialist paediatric hospitals were rated more positively than non-paediatric hospitals. Those questions focused on whether: parents would ‘speak highly’ of the hospital; ‘always’ had confidence and trust in doctors; doctors were ‘always’ polite and courteous and; facilities were available for parents to make drinks or food. In contrast, non-paediatric hospitals were rated more positively for questions about cleanliness (of rooms and toilets); and whether the time spent in ED, or the time waited until being taken to the hospital room, was ‘about right’.

## Elective surgery

- In 2014–15, 10% of all elective surgical procedures in NSW public hospitals were performed on children aged 0–17 years (21,984 procedures in total)
- Tonsillectomy was the most commonly performed procedure (4,314 procedures in total)
- Across the different age groups, children aged 5–12 years had the longest median waiting time for non-urgent surgery (271 days)
- Almost half (46%) of all children’s elective surgical procedures (10,178) were performed in specialist paediatric hospitals. These hospitals performed 95% of all cardiothoracic surgery, and 84% of all plastic surgery
- Across all urgency categories, median waiting times were shorter at specialist paediatric hospitals compared with non-paediatric hospitals; however specialist paediatric hospitals completed a smaller proportion of semi-urgent and non-urgent surgery within recommended timeframes.

# Introduction

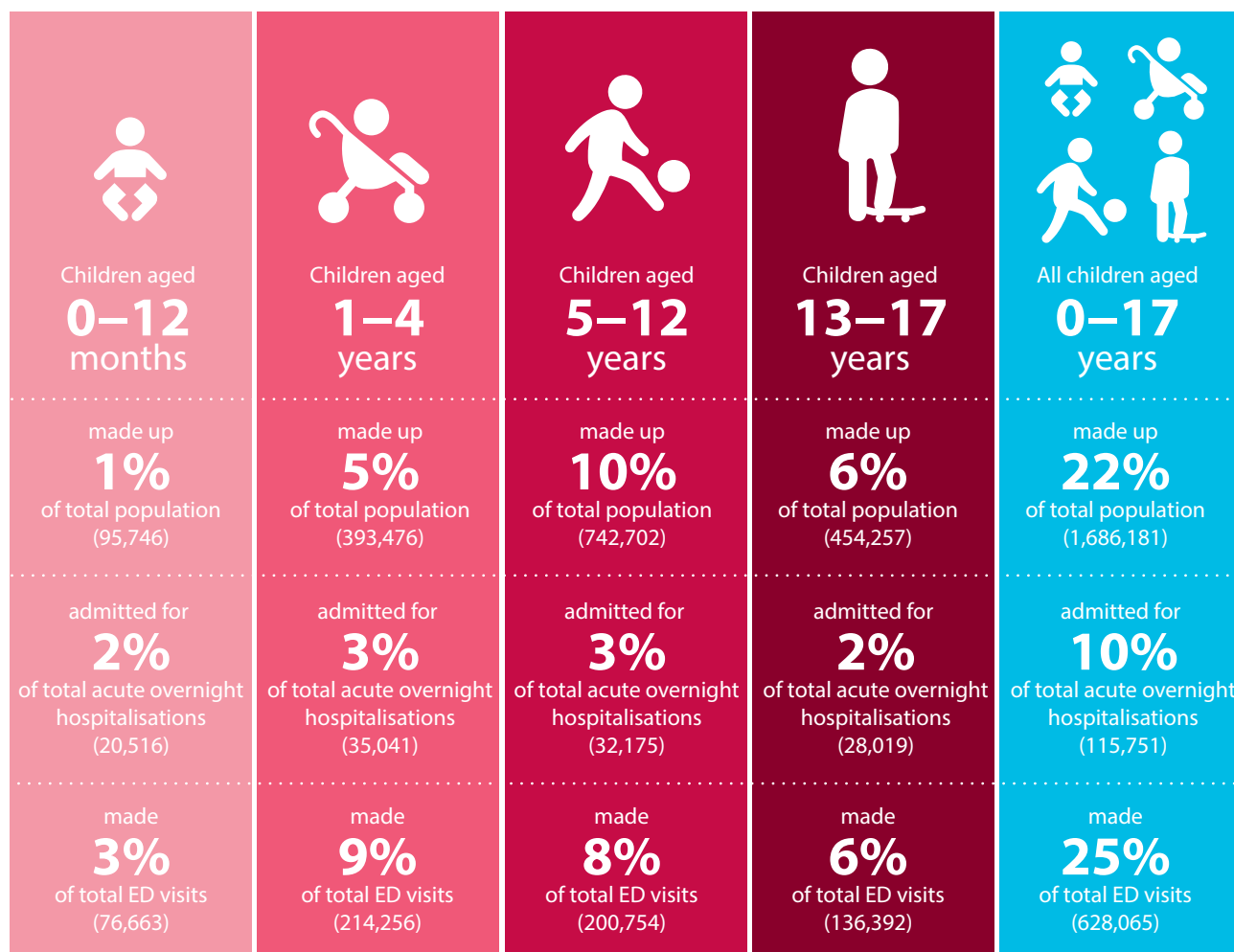
There are almost 1.7 million children and young people aged 0–17 years who live in NSW, comprising 22% of the state’s population. Generally, children in NSW are healthy but they often experience short or recurrent episodes of acute illness or accidental injury.

Children and young people, when they are sick or need hospital-based medical care, are vulnerable. That vulnerability is apparent in a physical sense, as a result of small body mass and underdeveloped defence mechanisms; but also in an emotional sense,

with particular needs for engagement, support and reassurance. Services provided in emergency departments (EDs) and hospitals change as children transition from infancy to early adulthood (Figure 1).

This report focuses on how children connect with the hospital-based healthcare system in NSW, exploring patterns of use and experiences of care in a one year period. It draws on data from a range of sources to provide results for four separate age groups (0–12 months; 1–4 years; 5–12 years; 13–17 years) as well as for the 0–17 year age group as a whole.

Figure 1 Age groups and utilisation of hospital services – an overview, 2013–14



Sources: NSW Ministry of Health, extracted from SAPHaRI, Centre for Epidemiology and Evidence, NSW (BHI Analysis). NSW Health, Waiting List Collection On-line System

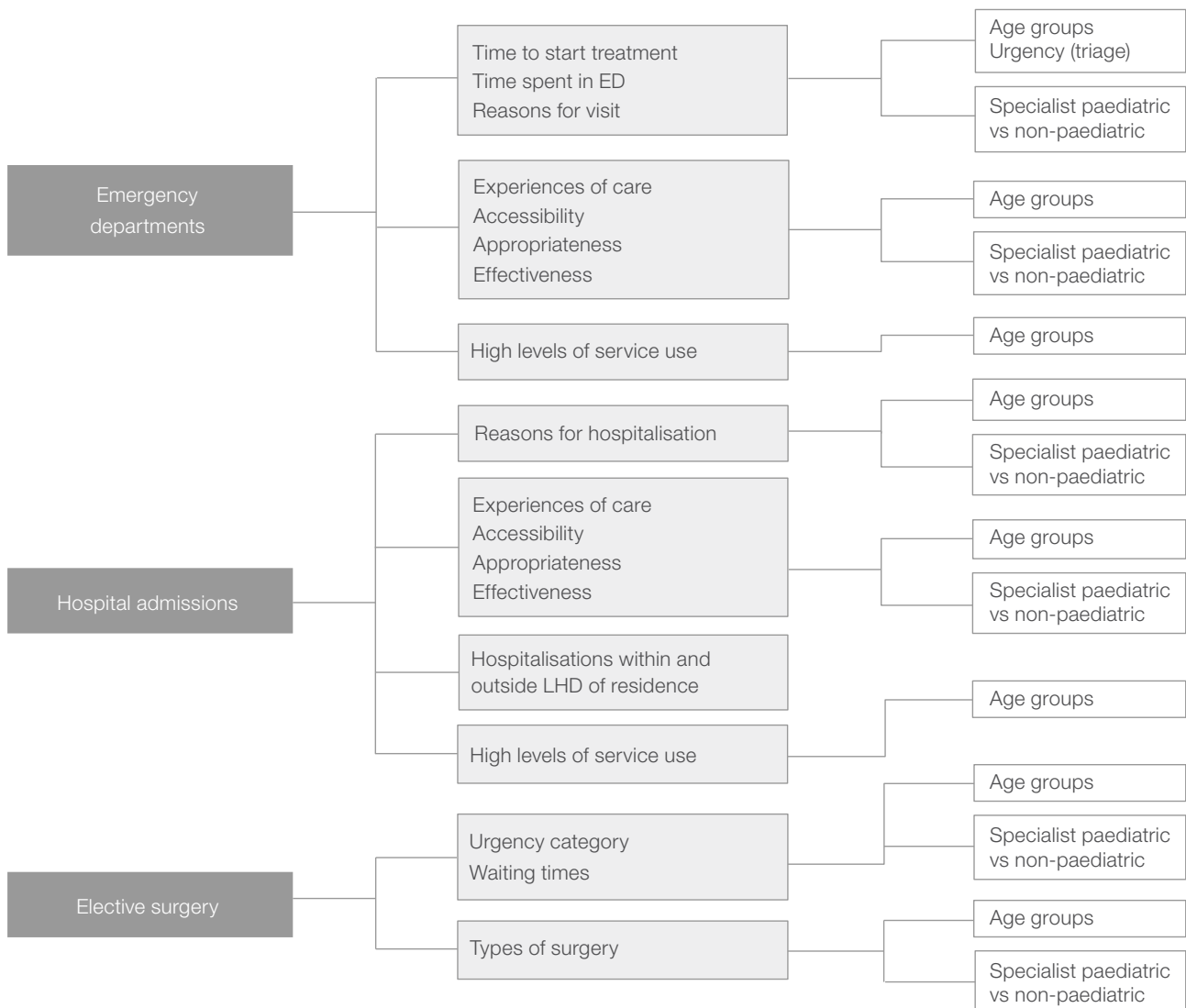


## Scope of the report

The scope of *Healthcare performance across the life span, Volume 2* echoes the approach used in Volume 1 which focused on people aged 55+ years. The report is neither a comprehensive evaluation of policy nor a formative assessment of system or hospital performance with regards to care of children and young people.

The report describes how healthcare services were utilised — why, where and how often children and young people visited an ED, were admitted to hospital or underwent an elective surgical procedure; their experiences of care; and the timeliness of the services provided (Figure 2).

Figure 2 Scope and structure of the report



# About this report

## Data sources and methods

### NSW Ministry of Health datasets

Three key data sources were drawn on for utilisation and waiting time data: the NSW Admitted Patient Data Collection (APDC) (a count of all admitted patient services provided by public and private hospitals in the state); the Emergency Department Data Collection (EDDC) (a count of all emergency department services provided by public hospitals with electronic data collection); the Waiting List Collection On-line System (a count of patients waiting for planned treatment). These datasets were accessed through the Secure Analytics for Population Health Research and Intelligence (SAPHaRI) at the Centre for Epidemiology and Evidence (CEE) based at the NSW Ministry of Health.

Patterns of patient flows across local health district (LHD) boundaries and between specialist paediatric and non-paediatric hospitals were examined through Clinical Services Planning and Analysis (CaSPA), an online service planning tool at the NSW Ministry of Health.

### NSW Patient Survey Program

BHI manages the NSW Patient Survey Program which each year asks more than 220,000 patients about their experiences of care in the state's public hospital system. Two surveys were drawn on for this report: the Emergency Department Patient Survey (EDPS) and the Admitted Children and Young Patients Survey (ACYPS)

The EDPS 2014–15 elicited responses from 18,300 patients, including 5,572 (30%) who were aged 0–17 years and visited an ED between April 2014 and March 2015. The adjusted response rate was 27%. Responses were weighted by age group and visit type in order to ensure that results from respondents were representative of the overall patient population in each hospital.

The ACYPS gathered information about the experiences of care of 8,393 children or young people who were admitted overnight to a NSW public hospital between January and December 2014 (overall response rate 28%). There were two questionnaires, one for patients aged 0–7 years and a second for patients aged 8–17 years.

Most questionnaires were completed by a parent on their child's behalf; however among patients aged 8–17 years, 13% provided the responses to the questionnaire themselves. Responses were weighted (by age group and stay type) to ensure that results were representative of the patient population in each hospital.

This report uses results from 72 performance-related questions from the EDPS questionnaire and 65 performance-related questions from the ACYPS questionnaire. Results were analysed by themes, age group and specialisation of hospital.

### NHS Children and Young People's Inpatient and Day Case Survey 2014

The NHS Children and Young People's Inpatient and Day Case Survey data were drawn from a sample of almost 19,000 children and young people aged 0–15 years who were admitted to hospital as an inpatient, or for treatment as a day case patient in England in 2014.

### Survey data analysis

Analysis was performed on survey data using the SURVEYFREQ procedure in SAS V9.3.

Results that compare hospitals or age groups are deemed to be significantly different where the 95% confidence intervals of the two estimates do not overlap.

The **patient experience measures** in this report capture variation in patient views about the accessibility, appropriateness and effectiveness of healthcare (Figure 3).

## Cohort analyses

**Utilisation measures** captured variation according to age group, urgency (for ED visits and elective surgery) and hospital type (specialist paediatric and non-paediatric hospitals).

Cohort analyses were undertaken to determine the number and frequency of emergency ED visits and hospitalisations.

Analyses were based on two years of data. For the ED visit analysis, EDDC data from financial years 2013–14 and 2014–15 for children and young people aged 0–17 years were used. For each patient, only visits within the year following their birthday during the financial year 2013–14 were counted to understand the number and frequency of emergency ED visits. The patient’s birthday was approximated to be the 15th day of the month of birth. A similar method was used to determine the use of acute overnight hospitalisations, based on 2012–2013 and 2013–2014 APDC data.

## Describing reasons for ED visits

Clinical information in the EDDC is heterogeneous. There are several different computer programs used across the state’s hospital EDs. Different programs use different classifications to record the clinical information, including ICD–9, ICD–10, and SNOMED CT.

Information about presenting complaints is recorded by medical, nursing or clerical personnel at the point of care rather than by trained clinical information managers. Historically, this has hampered efforts to capture reasons for presentation to ED. For this project, the reason for each ED visit, defined as the principal diagnosis at presentation as recorded in SNOMED–CT, ICD–9–CM and superseded ICD10–AM versions, were mapped to ICD–10–AM V6 and then grouped.

Figure 3 Dimension of performance, aspects of care – an overview<sup>1</sup>

Dimension	Aspect of Care	Description
	Overall experiences	General ratings of care, quality and healthcare providers.
Accessibility	Access Timeliness	Patients consider that the healthcare services they need are available, approachable and affordable; and are provided in a timely way.
Appropriateness	Physical environment and comfort Communication and information Coordination and continuity Respect and dignity Engagement and participation Comprehensive and whole–person care Safety and hygiene	Healthcare services are responsive to patients’ expectations, and to their medical and emotional needs. Patients have the information and support they need to allow them to engage in their own care. Services are provided in a coordinated and technically proficient way.
Effectiveness	Trust and confidence Outcomes	Healthcare services provided make a material difference to patients’ lives. Patients have trust and confidence in healthcare providers and the broader healthcare system.

## In context – the NSW hospital network

At a system level, children fall seriously ill less frequently than adults and as a result there are fewer specialist paediatric hospitals than there are specialist hospitals for adult patients.

In NSW, three specialist paediatric (or tertiary referral) hospitals act as regional hubs for the transfer of seriously sick children: Sydney Children’s Hospital,

Randwick, The Children’s Hospital at Westmead and John Hunter Children’s Hospital. These hospitals provide complex medical, surgical and trauma care to children in NSW as well as delivering more routine services to their local populations.

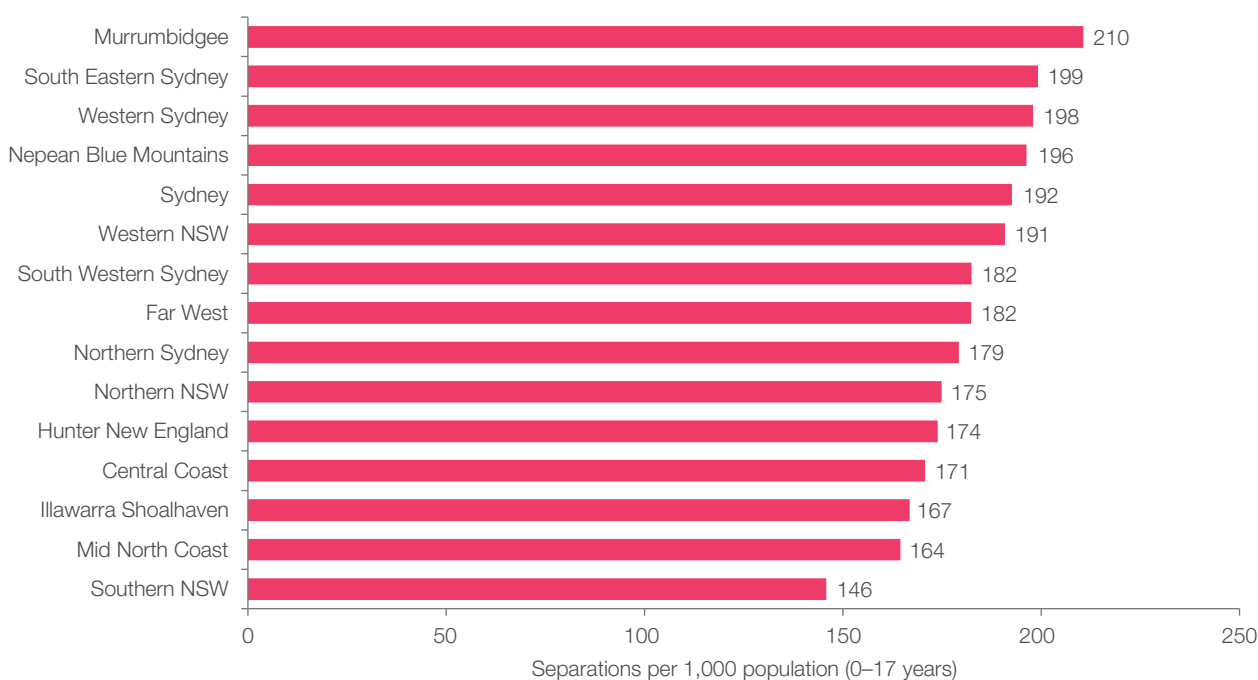
An overview of the data used in this report is shown in Figure 4, and the rate of hospitalisations per 1,000 population by LHD is shown in Figure 5.

Figure 4 Data sources: specialist paediatric hospitals and non-paediatric public hospitals, NSW

	Specialist paediatric hospitals	Non-paediatric hospitals	All (0–17 years)
ED visits (2013–14)	114,985 (18%)	513,080 (82%)	628,065
Acute overnight admissions (2013–14)	31,556 (27%)	84,195 (73%)	115,751
Elective surgical procedures (2014–15)	10,178 (46%)	11,806 (54%)	21,984
<b>Patient survey</b>			
NSW Emergency Department Patient Survey (2014–15)	1,148 (21%)	4,424 (79%)	5,572
NSW Admitted Children and Young Patients Survey (2014)	783 (9%)	7,610 (91%)	8,393

Sources: NSW Ministry of Health, extracted from SAPHaRI, Centre for Epidemiology and Evidence, NSW (BHI Analysis). BHI, NSW Patient Survey Program. NSW Health, Waiting List Collection On-line System.

Figure 5 Hospitalisations (public and private) per 1,000 resident population, NSW LHDs, 0–17 years, 2013–14



Source: NSW Ministry of Health, extracted from Clinical Services Planning Analytics (CaSPA) FlowInfo v15, Health System Planning and Investment Branch (BHI Analysis); NSW Ministry of Health, extracted from SAPHaRI, Centre for Epidemiology and Evidence, NSW (BHI Analysis).

Providing a healthy start in life, minimising the impact of ill-health in childhood and establishing healthy behaviours all help to ensure a smooth transition to adulthood. Below are a selection of health-related facts about children and young people in NSW.

### Healthy behaviours

- More than one in four children are obese
- In 2013, 26.8% of children aged 5–16 years were overweight or obese, a decline from 33.7% in 2012
- 73% of children aged 2–15 years consume the recommended one or more pieces of fruit each day
- In 2012–2013, 28.6% of children aged 5–15 years participated in more than one hour of physical activity each day outside of school hours, an increase from 21.9% in 2004–2005
- In 2011, in the NSW School Students Health Behaviours Survey, 7.5% of students aged 12–17 years reported they were current smokers (4.2% of 12–15 year olds and 15.4% of 16–17 year olds); a substantial decrease since 1984 when 27.3% reported current smoking
- In 2011, in the NSW School Students Health Behaviours Survey, 68.8% of students aged 12–17 years reported they had consumed an alcoholic drink at some point in their lives and 16.2% had a drink in the last week
- In 2011, in the NSW School Students Health Behaviours Survey, students aged 12–17 years most commonly reported they had used inhalants (18.0%), sedatives or tranquilisers for non-medical reasons (16.0%), or cannabis (13.6%).

### Preventive care

- The vaccination rates in 2013 were 90% at one year of age and 92% at four years of age
- In 2013, 94% of Aboriginal children and 92% of non-Aboriginal children were fully immunised by their fourth birthday
- The percentage of infants exclusively breastfed at six months of age doubled between 2003–2004 and 2012–2013, from 12.6% to 29.2%.

### Health status

The NSW Teen Dental Survey 2010 reported that teenagers aged 14–15 years had on average 1.2 permanent decayed, missing or filled teeth (DMFT) per person, and 45.4% of 14–15 year olds had dental decay in one or more of their permanent teeth. Dental decay in teenagers was similar across socioeconomic status areas, but more common in teenagers living in unfluoridated areas.

Source: HealthStats NSW, 2016

## Understanding flows

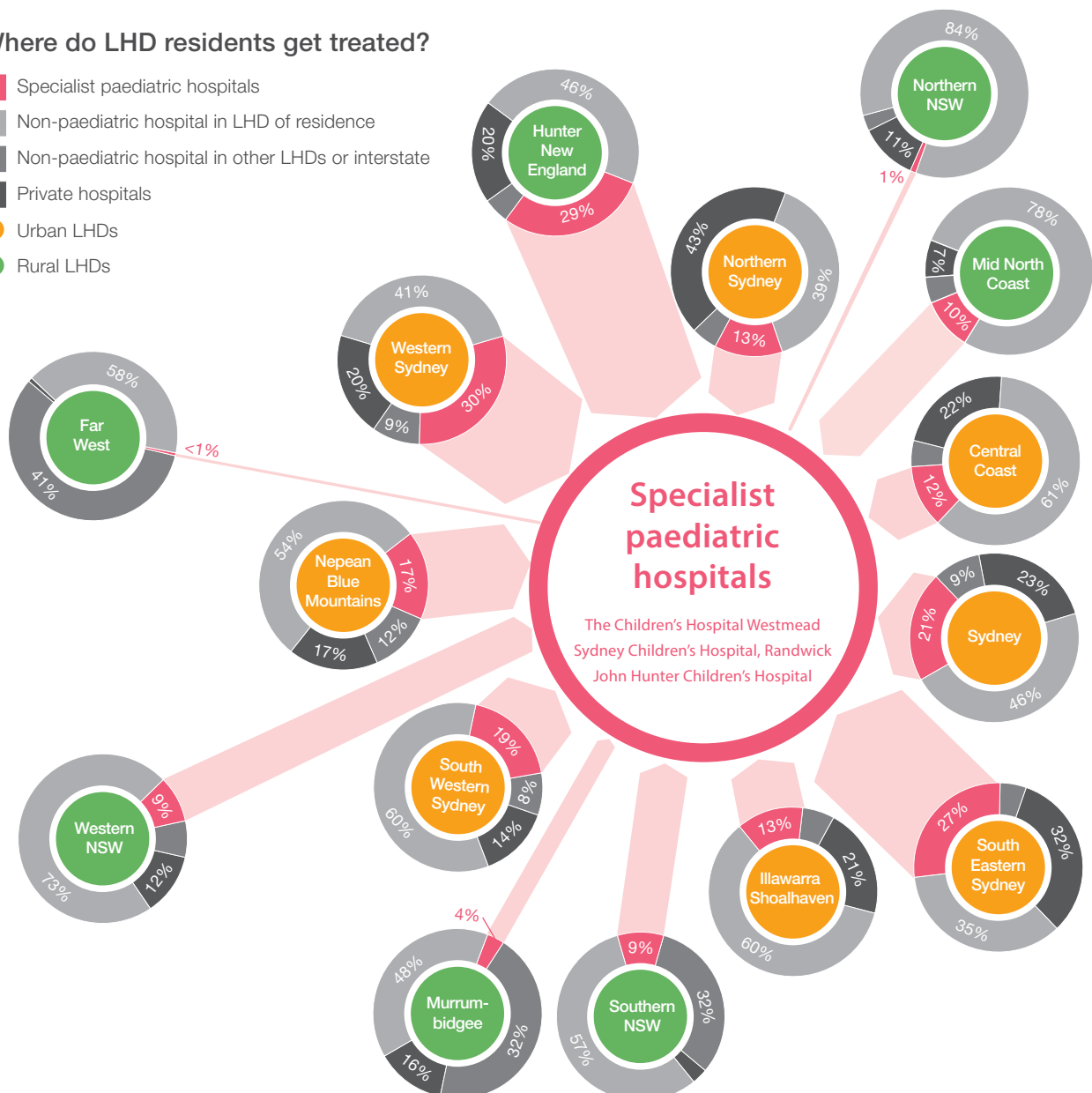
The number of children who live in, and are hospitalised in, each LHD varies. Some LHDs provide the bulk of hospital services used by their resident populations. For example, of all the hospitalisations for children who lived in Northern NSW, 84% occurred in public hospitals within the LHD. In contrast, among

all hospitalisations for children who lived in Northern Sydney LHD, 39% occurred in public hospitals within the LHD. For the children of Far West LHD, 58% of hospitalisations occurred in Far West LHD hospitals while 41% occurred in other LHDs or states (mostly Victoria and South Australia).

Figure 6 Proportion of LHD resident (0–17 years) hospitalisations and where they occurred, 2013–14

### Where do LHD residents get treated?

- Specialist paediatric hospitals
- Non-paediatric hospital in LHD of residence
- Non-paediatric hospital in other LHDs or interstate
- Private hospitals
- Urban LHDs
- Rural LHDs



Source: NSW Ministry of Health, extracted from Clinical Services Planning Analytics (CaSPA) FlowInfo v14, Health System Planning and Investment Branch (BHI Analysis)  
 Note: Unqualified neonates were included in the data for non-paediatric hospitals in the LHD of residence.

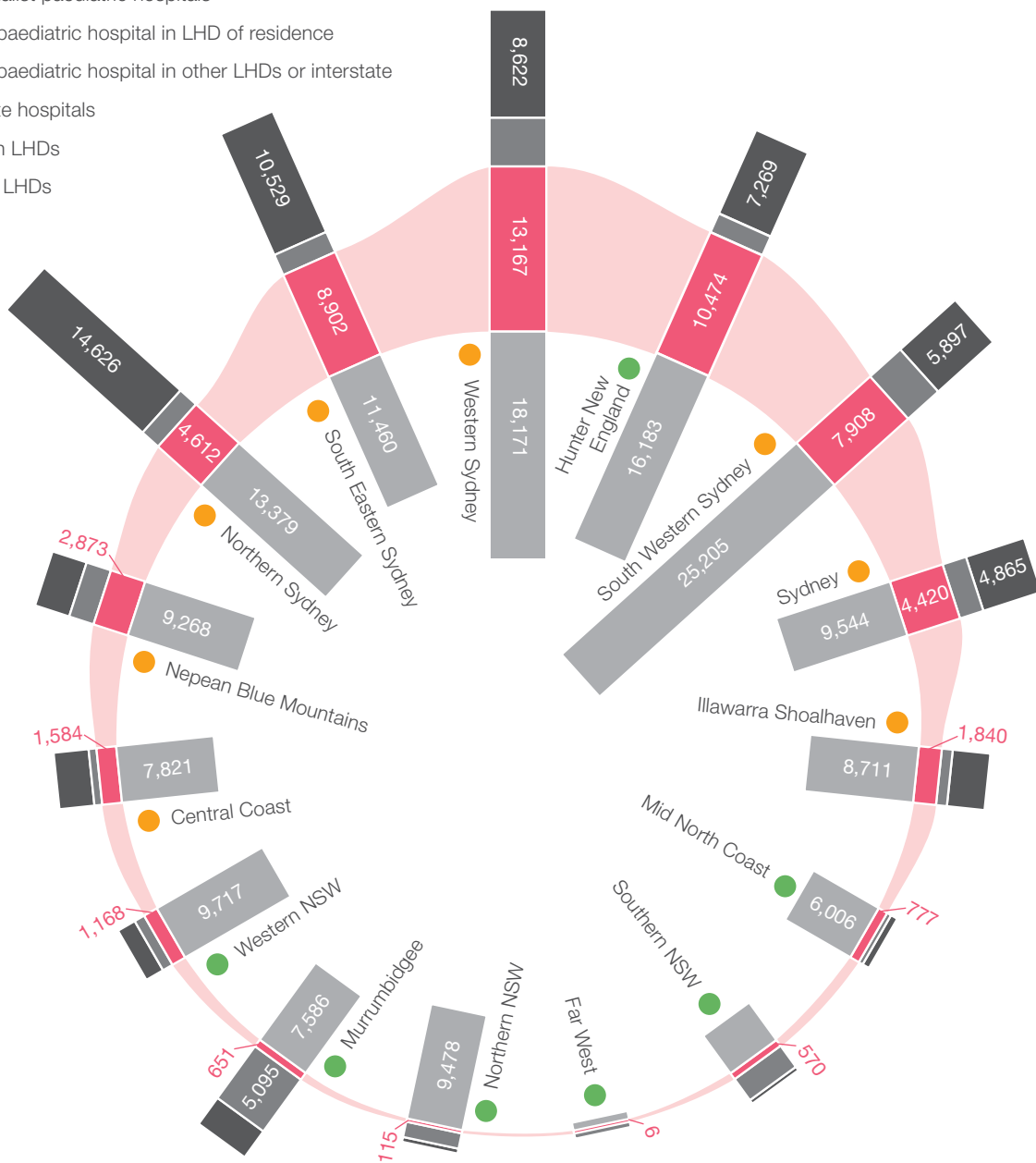
The largest percentage of resident children treated in a specialist paediatric hospital was 30% in Western Sydney LHD (Figure 6).

As well as proportions, patient flows can be examined in terms of absolute volumes of hospitalisations, highlighting the number of children the paediatric specialist hospitals care for, particularly from urban LHDs (Figure 7).

Figure 7 Volume of LHD resident (0–17 years) hospitalisations and where they occurred, 2013–14

### Where do LHD residents get treated?

- Specialist paediatric hospitals
- Non-paediatric hospital in LHD of residence
- Non-paediatric hospital in other LHDs or interstate
- Private hospitals
- Urban LHDs
- Rural LHDs



Source: NSW Ministry of Health, extracted from Clinical Services Planning Analytics (CaSPA) Flowinfo v14, Health System Planning and Investment Branch (BHI Analysis)  
 Note: John Hunter Children's Hospital is located within Hunter New England LHD; The Children's Hospital at Westmead is located in Western Sydney LHD; Sydney Children's Hospital, Randwick is located in South Eastern Sydney LHD; and while Albury Hospital is located in Murrumbidgee LHD, it falls under the governance of the Victorian Albury-Wodonga Health service. For the purposes of flow analyses, these hospitals are considered as separate destinations, outside the LHD within which they are geographically located.  
 Note: Unqualified neonates were included in the data for non-paediatric hospitals in the LHD of residence.





# Utilisation and experiences of care in emergency departments

# Emergency department use by children and young people

Visiting the emergency department (ED) is a stressful but not uncommon event for NSW children and their families. Children, especially young children, require speedy assessment and sensitive care, and their parents need reassurance and support.

During the year 2013–14, there were 2.5m visits made to NSW public hospital EDs. Children and young people (aged 0–17 years), who represent 22% of the NSW population, made more than 25% of these visits (628,065 visits in total) (Figure 8a).

Small babies were much more likely than other age groups to visit an ED, with 44% of children aged 0–12 months visiting at least once in their first year of life. In comparison, 19% of children aged 5–12 years and aged 13–17 years made at least one ED visit in the course of a year.

There was a small group of children and young people with high levels of ED use: 3% of 0–17 year olds (48,834) visited an ED three or more times in the year. This small group of patients accounted for 191,829 visits (31% of the total number of ED visits by all children and young people) (Figure 8b).

Figure 8a Emergency department use, by age group, NSW public hospitals, 2013–14

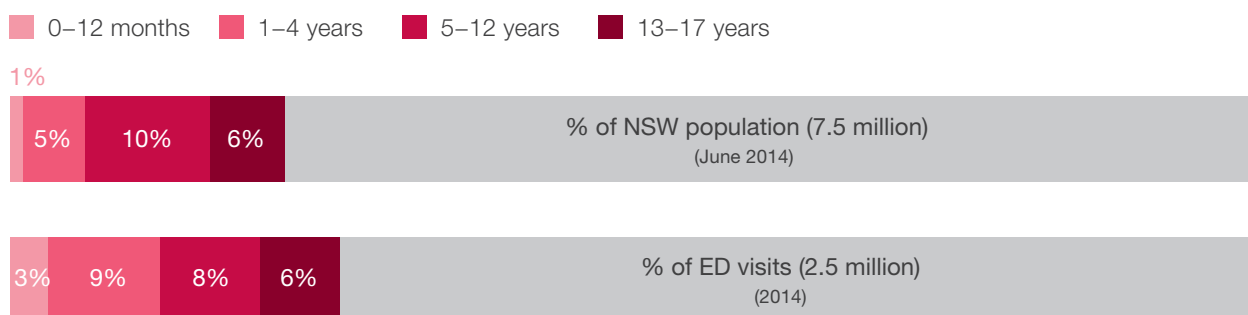
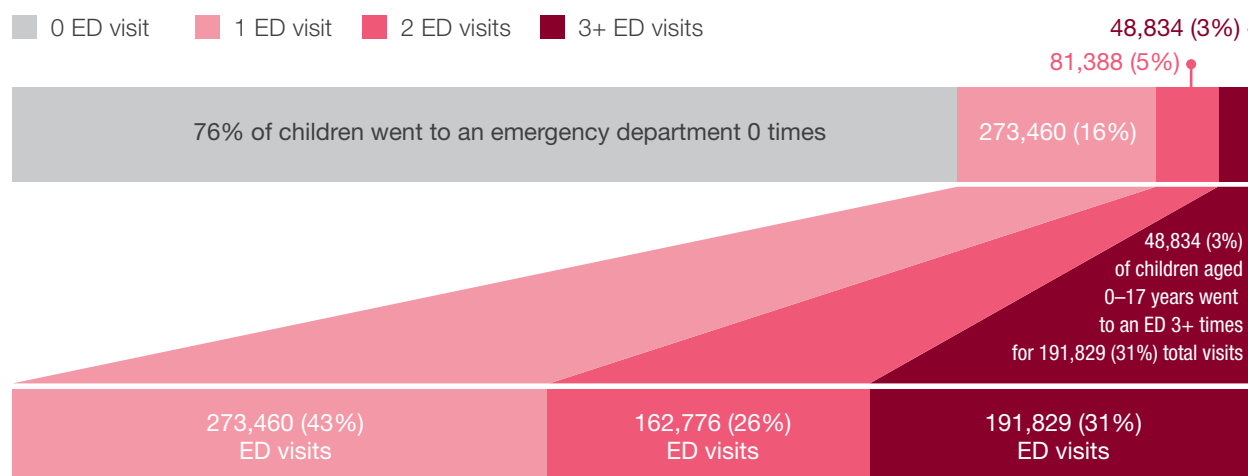


Figure 8b Emergency department use, by number of visits, children aged 0–17 years, NSW public hospitals, 2013–14



Source: NSW Ministry of Health, extracted from SAPHaRI, Centre for Epidemiology and Evidence, NSW (BHI Analysis)

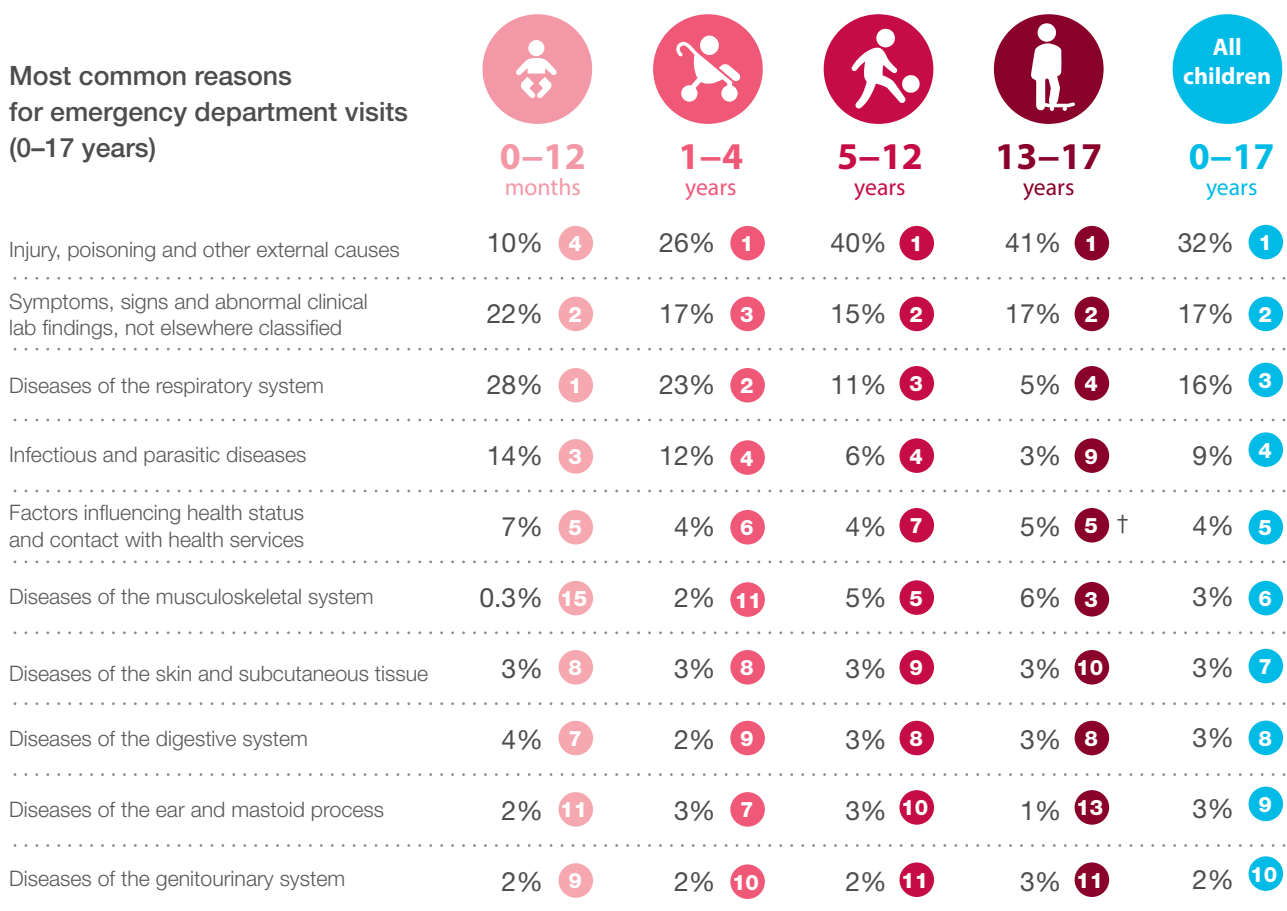
Across the four age groups, the proportion of children who visited an ED three or more times in the year was 8% for babies aged 0–12 months, 5% for 1–4 year olds, 2% for 5–12 years olds and 2% for 13–17 year olds [data not shown].

Children and young people visit the ED for a range of reasons. In 2014–15, ‘injury, poisoning and other external causes’ was the most commonly recorded reason for ED visits overall, accounting for 32% of all visits among the 0–17 year age group (Figure 9).

Reasons for ED visits differed across age groups. The proportion of ED visits for ‘injury, poisoning and other external causes’ and ‘diseases of the musculoskeletal system’ increased with age, while the proportion of visits for ‘diseases of the respiratory system’ and ‘infectious and parasitic diseases’ decreased with age (Figure 9).

Among patients 13–17 years, mental and behavioural issues emerge as a common reason for ED visits, accounting for 5% of all ED visits in this age group in 2014–15 (Figure 9).

Figure 9 Most commonly recorded reasons for ED visits, by age group, NSW public hospitals, 2014–15\*



For each age group (1) = most common reason (2) = second most common reason etc.

Source: NSW Ministry of Health, extracted from SAPHaRI, Centre for Epidemiology and Evidence, NSW (BHI Analysis)

\* Excluding missing/not mapped/not coded

† Mental and behavioural disorders also accounted for 5% of ED visits in 13–17 year olds

# Timeliness of emergency department care

Children and young people can experience health problems that escalate quickly and timely assessment and treatment in the ED is essential.

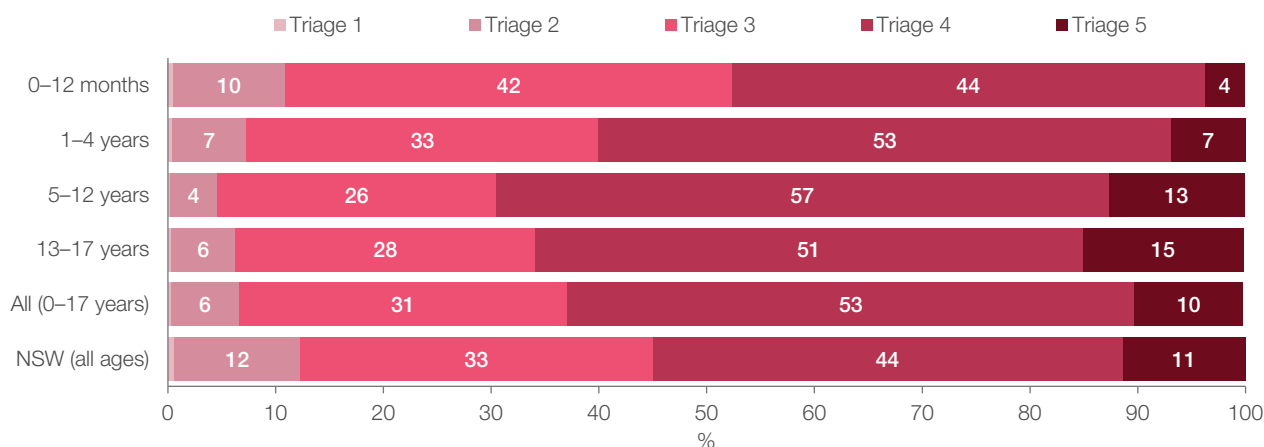
Upon arrival at an ED, patients are allocated to one of five urgency (or triage) categories. Each category has a recommended timeframe within which patients should start to receive care:

- Resuscitation (triage 1): within two minutes
- Emergency (triage 2): within 10 minutes
- Urgent (triage 3): within 30 minutes
- Semi-urgent (triage 4): within 60 minutes
- Non-urgent (triage 5): within 120 minutes.

In 2014–15, children and young people aged 0–17 years made 636,155 visits to NSW EDs. Of these, fewer than 1% were assigned to triage category 1 and 6% were assigned to triage category 2. Most were assigned to either triage category 3 (31%) or triage category 4 (53%). Across age groups, a higher proportion of visits in the 0–12 months age group were assigned to more urgent triage categories (Figure 10).

Timeliness can be assessed by measures of median (50th percentile) and 95th percentile waiting times. For a particular group of patients, the median waiting time is the length of time the ‘middle’ patient waited, i.e. half had a shorter wait and half had a longer wait. The 95th percentile time marks the end of the time period within which 95% of patients waited.

Figure 10 Percentage of ED visits by triage category and age group, NSW public hospitals, 2014–2015



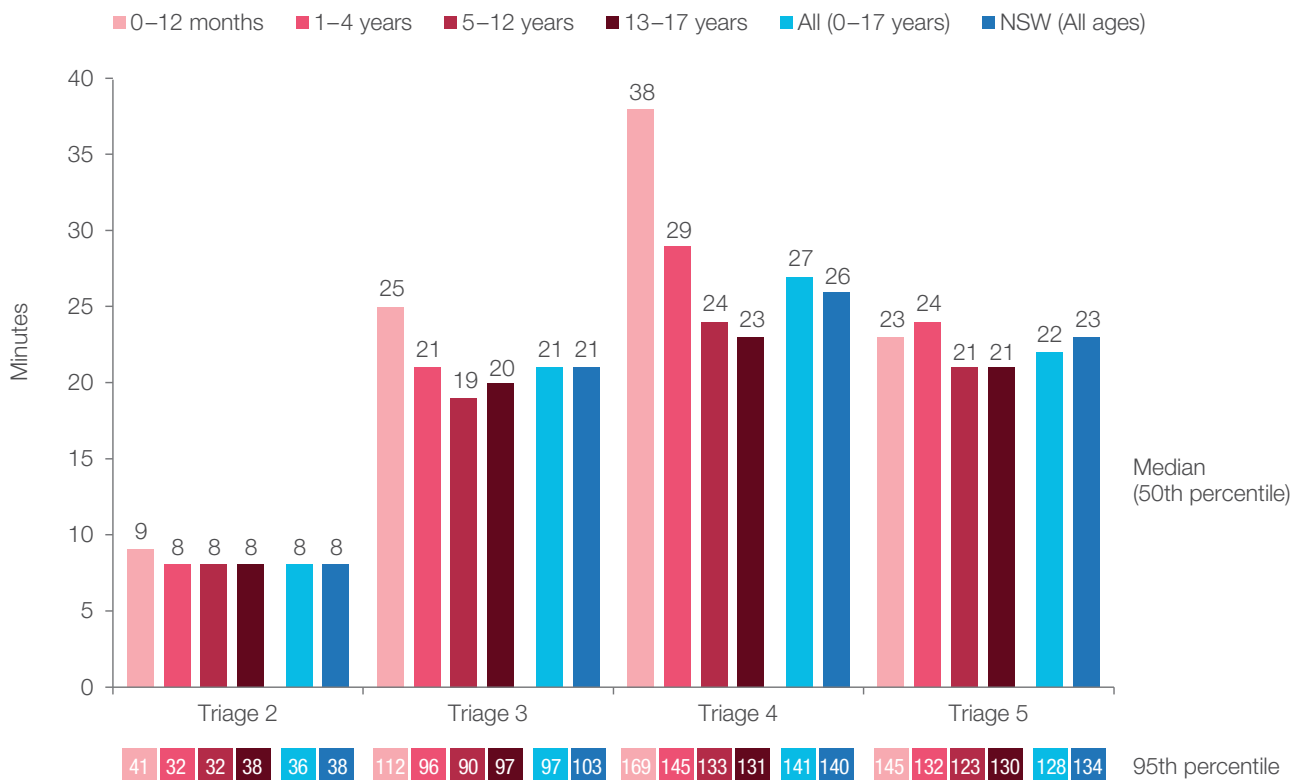
Source: NSW Ministry of Health, extracted from SAPHaRI, Centre for Epidemiology and Evidence, NSW (BHI Analysis)

Waiting time for treatment in the ED is measured from the time the patient first presents to when they are first seen by a medical officer (or nurse) and receive assessment or treatment.

Waiting times to start treatment differ across triage categories, reflecting clinical priorities. Among children and young people aged 0–17 years, the median waiting time to start treatment for triage category 2 patients was eight minutes, while the waiting time for triage category 4 patients was 27 minutes. The 95th percentile time to start treatment for triage category 2 patients was 36 minutes; for triage category 4 patients, the 95th percentile time to start treatment was 141 minutes (Figure 11).

Babies aged 0–12 months had the longest median waits to start treatment across triage categories 2, 3 and 4 (Figure 11). This occurred across hospital peer groups and LHDs [data not shown]. Differences in median waiting times between babies aged 0–12 months and 0–17 year olds was most marked for patients in triage category 4; ranging from 0 to 34 minutes across hospitals.

Figure 11 Median (50th percentile) and 95th percentile times to start treatment, by triage category and age group, NSW public hospitals, 2014–15



Source: NSW Ministry of Health, extracted from SAPHaRI, Centre for Epidemiology and Evidence, NSW (BHI Analysis)  
 Note: Triage 1 patients are the most urgent and are almost all treated within two minutes. Clinicians treating them are focused on providing immediate and essential care, rather than recording times, therefore times to start treatment are generally not reported

# Time spent in emergency departments

The ED can be a noisy, stressful environment for some children, and minimising the amount of time children and families spend there is an important priority.

In 2014–15, the majority of children aged 0–17 years (77%) who visited the ED received treatment and were discharged home. Comparing across age groups, babies aged 0–12 months were more likely to be admitted to hospital than children in other age groups (Figure 12). Children who are admitted or transferred to another facility often spend longer periods of time in the ED.

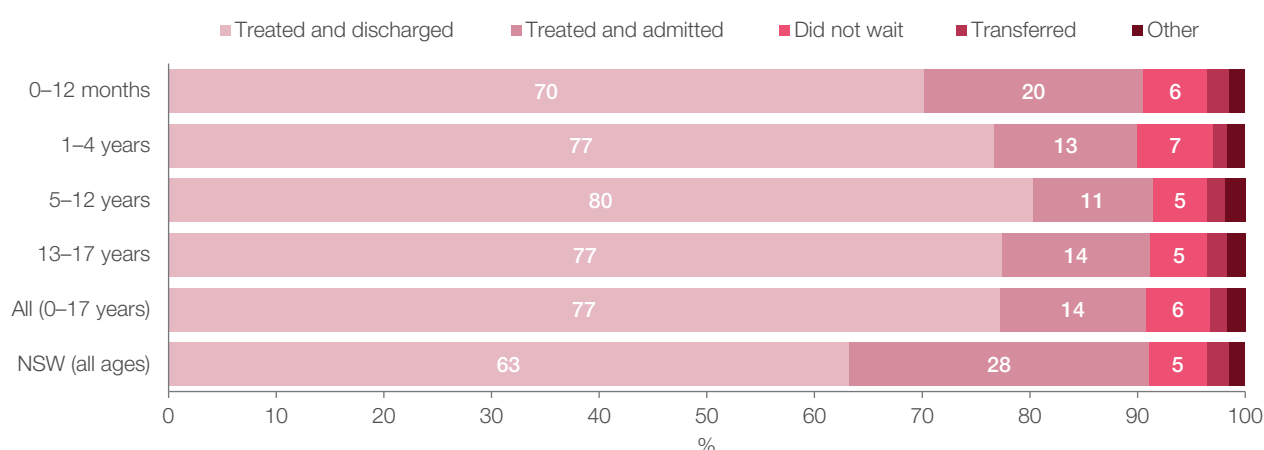
In 2014–15, the median time spent in EDs for children and young people aged 0–17 years was 132 minutes. Overall, more than 80% of children, across all age groups, spent four hours or less in the ED (ranging from 80% for babies aged 0–12 months to 85% for those aged 5–12 years).

Among children and young people who were treated and discharged home, the median time spent in the ED was longest for babies aged 0–12 months (125 minutes). Among patients who were treated and admitted, the median time spent in the ED was longest for children aged 1–4 years (261 minutes) (Figure 13).

Across all age groups, patients aged 13–17 years had the longest 95th percentile time spent in the ED, whether they were treated and discharged home (338 minutes) or treated and admitted to hospital (916 minutes) [data not shown].

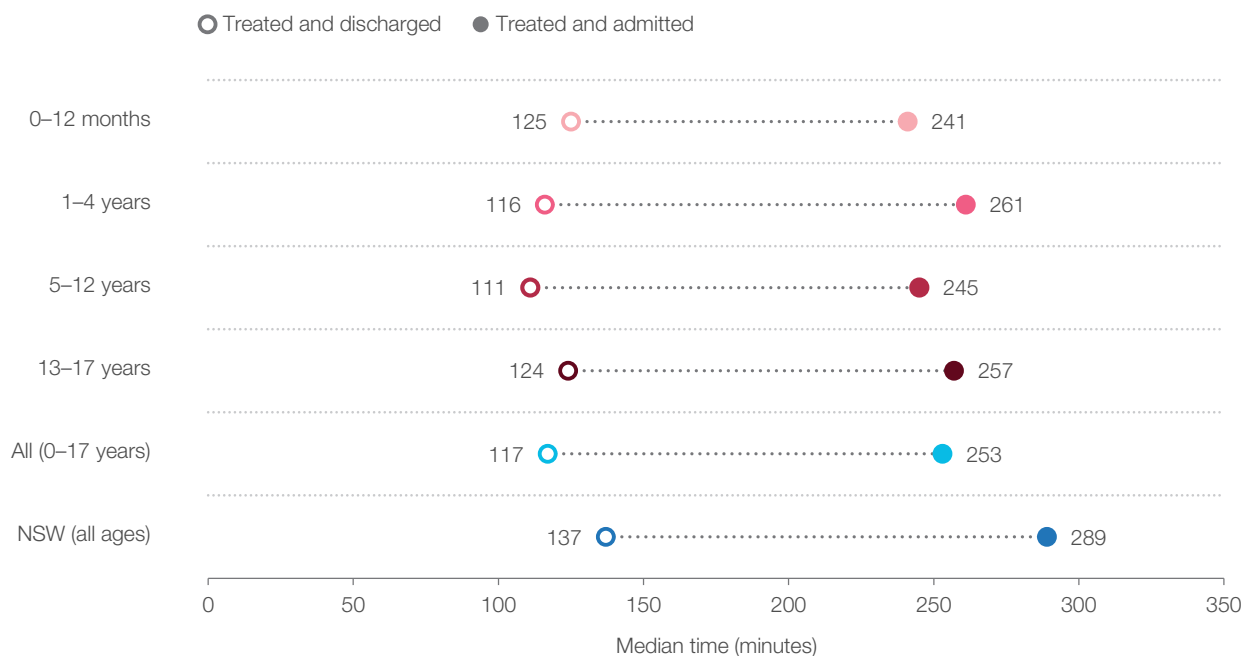
Recent years have seen a concerted effort to ensure that most patients spend less than four hours in the ED. In 2014–15, 83% of children and young people aged 0–17 years who visited an ED spent four hours or less there. For about 90% of visits ending with discharge home, patients spent four hours or less in the ED, with little difference across age groups. Fewer than half of those treated and admitted to hospital spent four hours or less in the ED (Figure 14).

Figure 12 Percentage of ED visits by mode of separation and age group, NSW public hospitals, 2014–15



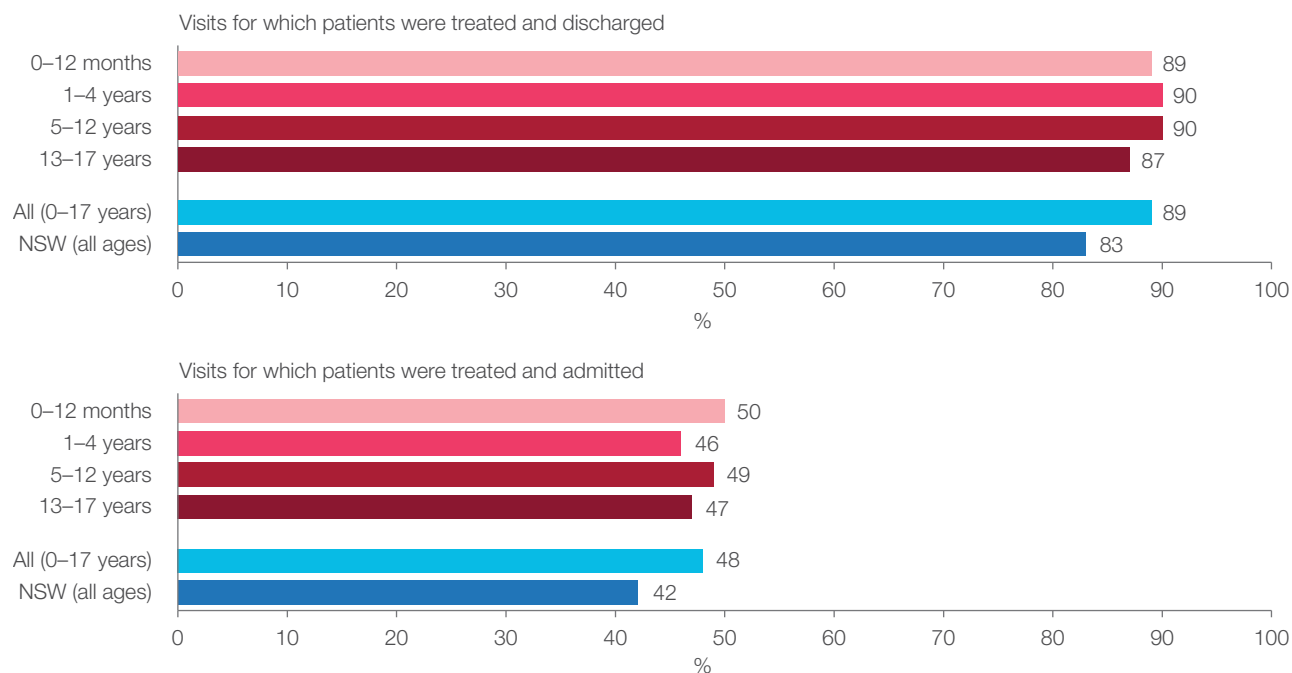
Source: NSW Ministry of Health, extracted from SAPHaRI, Centre for Epidemiology and Evidence, NSW (BHI Analysis)

Figure 13 Median (50th percentile) time spent in the ED, by mode of separation and age group, NSW, 2014–15



Source: NSW Ministry of Health, extracted from SAPHaRI, Centre for Epidemiology and Evidence, NSW (BHI Analysis)

Figure 14 Percentage of ED visits for which patients spent four hours or less in the ED, by mode of separation and age group, NSW public hospitals, 2014–15



Source: NSW Ministry of Health, extracted from SAPHaRI, Centre for Epidemiology and Evidence, NSW (BHI Analysis)

# Specialist paediatric hospital emergency department use

As well as providing emergency care to the local community, specialist paediatric hospitals provide complex medical, surgical, major trauma, neonatal care and emergency medicine services.

In 2014–15, there were 636,155 ED visits made by children and young people, and 18% (114,985) of these were to specialist paediatric hospital EDs. A larger proportion of visits to non-paediatric hospital EDs were assigned to higher triage categories (triage 2 and 3) (Figure 15).

## Reasons for ED visits

Reasons for ED visits were similar across specialist paediatric hospitals and non-paediatric hospitals with ‘diseases of the respiratory system’ and ‘injury, poisoning and other external factors’ the most commonly recorded.

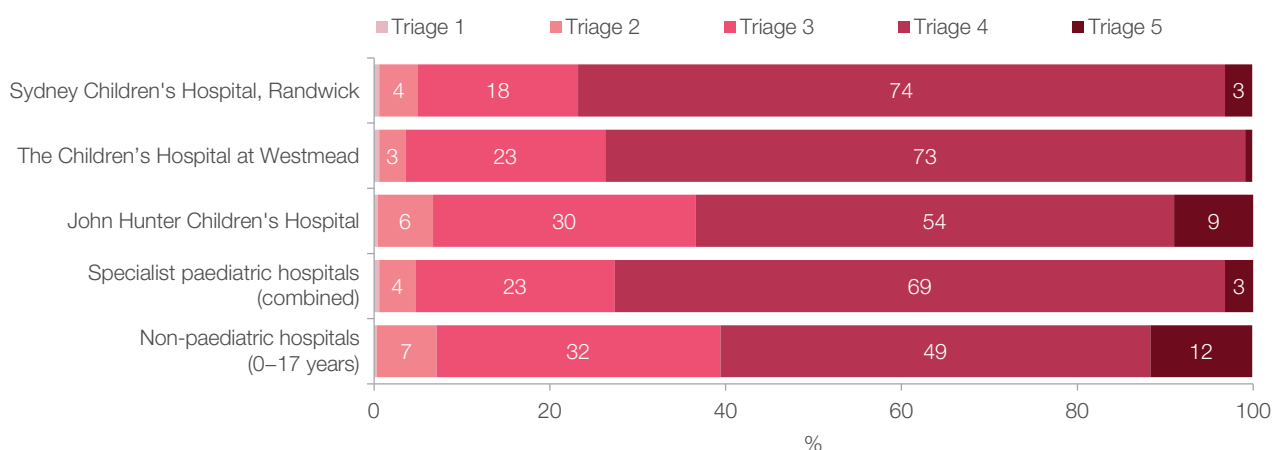
## Time to treatment

The median time to start treatment in specialist paediatric hospital EDs for children assigned to triage category 2 was seven minutes compared with eight minutes in non-paediatric hospitals. The 95th percentile time to starting treatment in specialist paediatric hospitals was shorter for triage category 2 and 3 patients, but longer for patients in triage category 4 and 5, compared with non-paediatric hospitals (Figure 16).

## Time spent in ED

Overall and across all age groups, the median and 95th percentile time spent in the ED was longer at specialist paediatric hospitals (163 and 501 minutes) compared with non-paediatric hospitals (121 and 368 minutes) (Figure 17). Compared with non-paediatric hospitals, a smaller proportion of patients spent four hours or less in specialist paediatric hospital EDs, whether they were treated and discharged or treated and admitted to hospital (Figure 17).

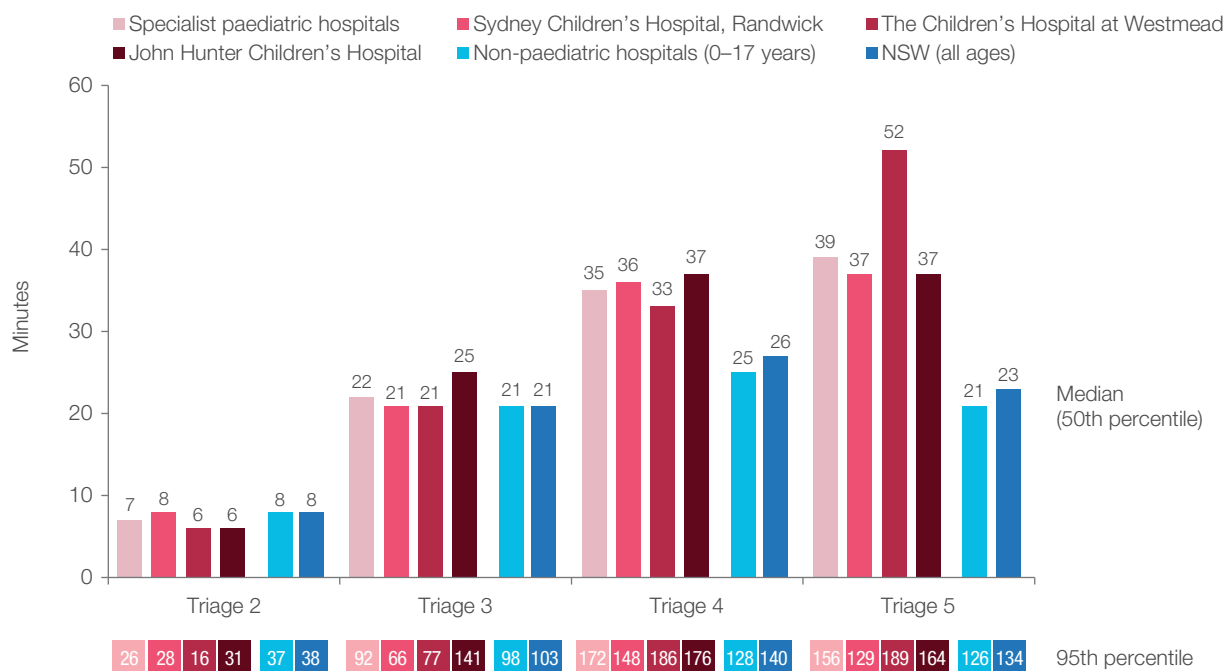
Figure 15 Proportion of visits by triage category, specialist paediatric and non-paediatric public hospital EDs, 0–17 years, NSW, 2014–15



Source: NSW Ministry of Health, extracted from SAPHaRI, Centre for Epidemiology and Evidence, NSW (BHI Analysis)  
 Note: In total, there were 50,640 visits by children aged 0–17 years to The Children's Hospital at Westmead ED. However, there were an additional 2,008 ED visits by children aged 0–17 years to Westmead Hospital ED; almost all (99%) were in the 13–17 year age group.

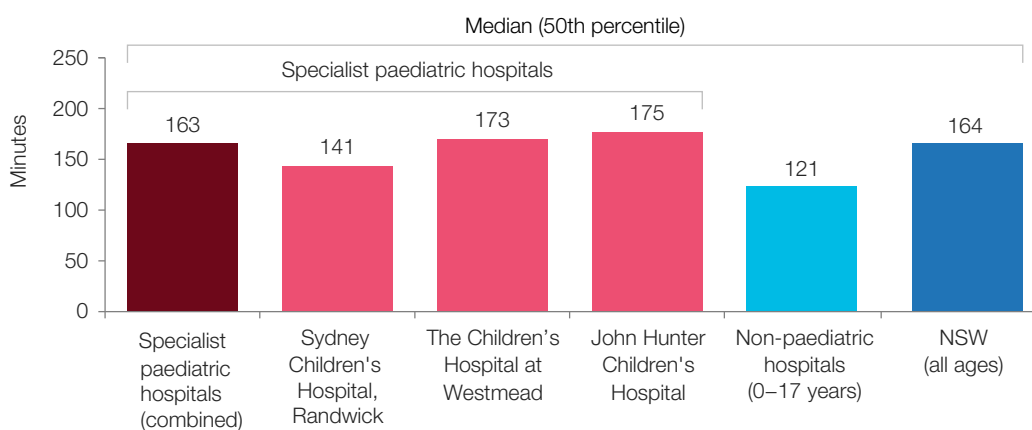


Figure 16 Median (50th percentile) and 95th percentile waiting times to start treatment in specialist paediatric hospital and non-paediatric public hospital EDs, NSW 2014–15



Source: NSW Ministry of Health, extracted from SAPHaRI, Centre for Epidemiology and Evidence, NSW (BHI Analysis)  
 Note: Triage 1 patients are the most urgent and are almost all treated within two minutes. Clinicians treating them are focused on providing immediate and essential care, rather than recording times, therefore times to start treatment are generally not reported

Figure 17 Median (50th percentile) and 95th percentile times spent in the ED, and percentage of patients who spent four hours or less in the ED, specialist paediatric hospital and non-paediatric public hospital EDs, NSW, 2014–15



95th percentile (minutes)	501	475	546	451	368	604
% who spent four hours or less in the ED	74	78	72	71	86	72
% treated and discharged who spent four hours or less in the ED	82	87	80	76	91	83
% treated and admitted who spent four hours or less in the ED	43	40	46	40	49	42

Source: NSW Ministry of Health, extracted from SAPHaRI, Centre for Epidemiology and Evidence, NSW (BHI Analysis)

# Experiences of care in emergency departments

The NSW Emergency Department Patient Survey asks thousands of patients about their recent experiences of care in NSW public hospital EDs. In 2014–15, more than 18,300 patients provided feedback about their ED visit, including 5,572 children. Most children responded with the help of a parent or carer.

Overall, ED care received by children and young people aged 0–17 years was rated as ‘very good’ by 53% of respondents and ‘good’ by 35%. In comparison, among all patients who visited an ED, 58% rated care as ‘very good’ and 31% as ‘good’.

The percentage who said care was ‘very good’ varied across age groups from 50% for children aged 1–4 years, to 58% for those aged 13–17 years (Figure 18).

## Accessibility

Compared with the overall NSW result (74%), parents of children aged 0–12 months, 1–4 years and 5–12 years were more likely to say that their child’s symptoms or condition did not worsen while waiting to be treated in the ED (87%; 81%; and 84% respectively). Babies aged 0–12 months were most likely to be delayed leaving the ED (26% versus 19% for all patients).

Children aged 1–4 years, 5–12 years and 13–17 years were more likely to report an ED stay of less than four hours (69%; 76% and 73% versus 65% for all patients); however children aged 1–4 years were also more likely to leave before receiving treatment (5% versus 3% for all patients).

## Appropriateness

All paediatric age groups were less positive than the overall NSW result regarding whether they were ‘completely’ given enough information by reception staff, and the cleanliness of ED waiting and treatment areas.

Parents of children aged 5–12 years were more likely to say ED health professionals ‘always’ explained things in a way they could understand (83% versus 79% for all patients) and that they were given ‘the right amount’ of information about their child’s condition or treatment (90% versus 85% for all patients).

Compared with responses from all patients, those for younger children (aged 0–12 months, 1–4 years and 5–12 years) were more likely to say they were told about signs and symptoms to look out for after discharge (71%; 65% and 65% respectively versus 57% for all patients); and who to contact if worried about their child after discharge (90%; 87%; 86% versus 82% for all patients).

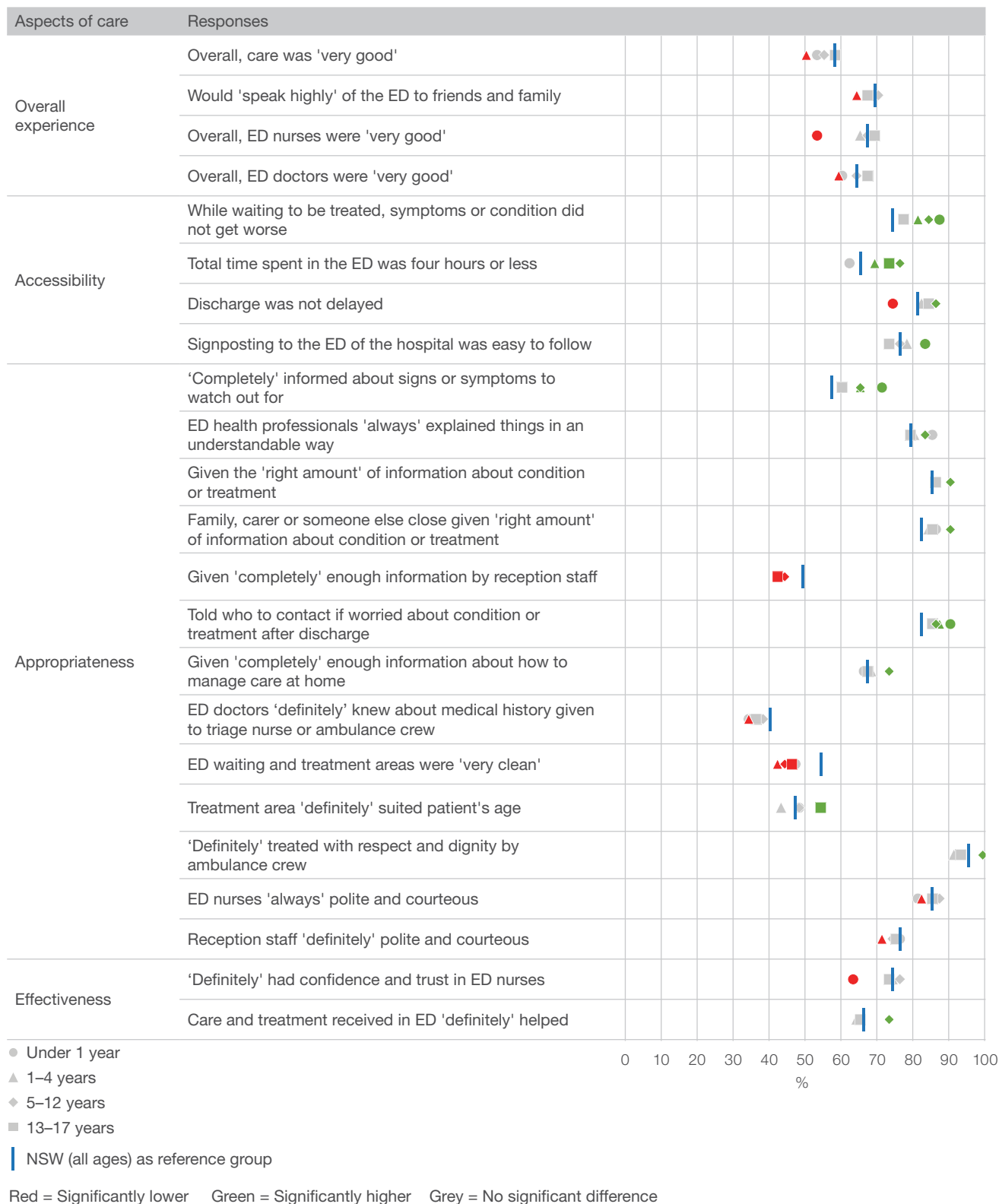
## Effectiveness

Parents of babies aged 0–12 months were least likely to have confidence and trust in the nurses (63% versus 74% for all patients); or to rate the ED nurses as ‘very good’ (53% versus 67%). Parents of children aged 1–4 years were least likely to rate the doctors as ‘very good’ (59% versus 64% for all patients).

Among parents of children aged 5–12 years, 73% said their child was ‘definitely’ helped by the care received in the ED, compared with 66% for all patients.

Healthcare Observer provides detailed results from the NSW Emergency Department Patient Survey at [bhi.nsw.gov.au/healthcare\\_observer](http://bhi.nsw.gov.au/healthcare_observer)

Figure 18 Experiences of children and young people in public hospital EDs, by age group, NSW Emergency Department Patient Survey, 2014-15



Source: BHI, NSW Patient Survey Program, Emergency Department Patient Survey April 2014–March 2015

# Experiences of care in specialist paediatric hospital emergency departments

The NSW Emergency Department Patient Survey (2014–15) included 1,148 responses from children who visited one of the three NSW specialist paediatric hospitals (21% of respondents aged 0–17 years; 6% of all respondents).

In comparison to non-paediatric hospitals, specialist paediatric hospital EDs received more positive responses for six out of 72 questions and less positive responses for five questions.

Patients who visited specialist paediatric hospitals were more likely than those who visited a non-paediatric hospital to say they would speak highly of their ED experience (72% versus 66%); that they had confidence and trust in the ED doctors (74% versus 69%); and that reception staff were polite and courteous (82% versus 71%) (Figure 19).

Those visiting specialist paediatric hospital EDs, however, were less likely than those visiting non-paediatric hospital EDs to say they had no problem finding parking near the ED (44% versus 56%); that patients spent four hours or less in the ED (60% versus 75%); and that ED departure was not delayed (79% versus 85%) (Figure 19).

## Experiences across individual specialist paediatric hospitals

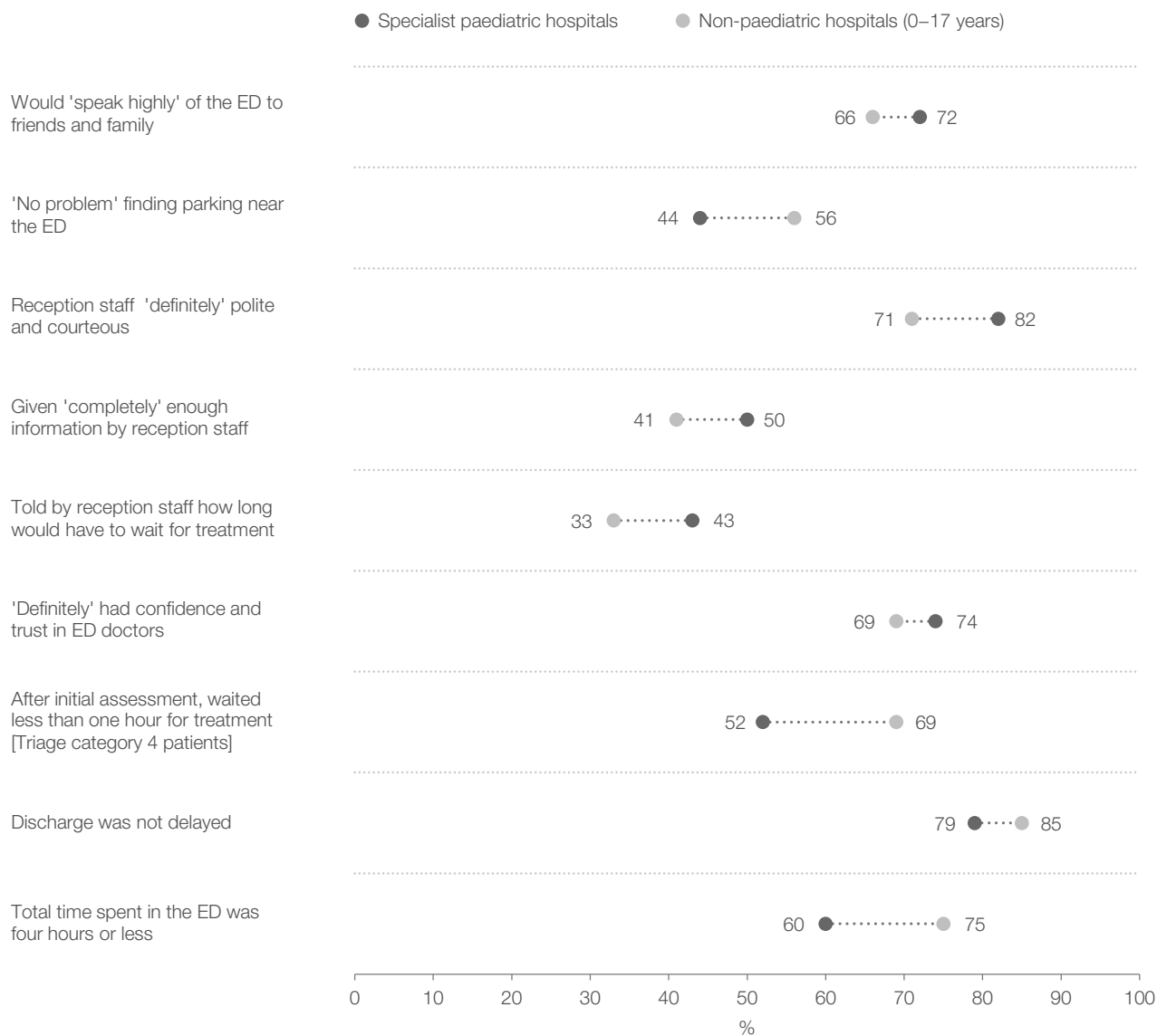
There were also differences in responses provided across individual specialist hospital EDs compared with non-paediatric hospitals (Appendix 1).

Experiences of care were rated more positively at Sydney Children's Hospital, Randwick than at non-paediatric hospitals for 30 out of 81 survey questions, including: overall, care rated 'very good' (68% versus 53%); ED doctors rated 'very good' (74% versus 62%); ED nurses rated 'very good' (75% versus 66%) and; would 'speak highly' about experiences in the ED (83% versus 66%). Less positive ratings were provided for three questions, including having no problem finding parking near the ED (31% versus 56%); and whether signposting was easy to follow (69% versus 77%) (Appendix 1).

Experiences of care at the Children's Hospital at Westmead were rated more positively than those at non-paediatric hospitals for five questions, including whether reception staff were 'definitely' polite and courteous (80% versus 71%) and whether health professionals 'completely' told parents about signs and symptoms to look out for after discharge (72% versus 63%). For six questions, experiences were rated less positively – including having no problem finding parking near the ED (48% versus 56%), and that ED departure was not delayed (75% versus 85%) (Appendix 1).

Patients who visited John Hunter Children's Hospital rated care more positively for one question: whether patients received a copy of a letter from the ED doctor to their GP (59% versus 46%); and less positively for one question: whether patients spent four hours or less in the ED (62% versus 75%) (Appendix 1).

Figure 19 Experiences of ED care, by specialist paediatric hospitals (combined) and non-paediatric public hospitals, 0–17 years, NSW Emergency Department Patient Survey, 2014–15



Source: BHI, NSW Patient Survey Program, Emergency Department Patient Survey April 2014–March 2015



# Utilisation and experiences of care in hospitals

# Use of hospitals

Hospitalisations are often significant events in the lives of children and young people. Although children aged 0–17 years represent 25% of all visits to the emergency department (ED), they account for only 10% of overnight hospital admissions in NSW. Hospitalised children often require complex care that spans across different sectors and providers. For these children, well-integrated care is a high priority – as is engagement and support for family and carers.

Of the 1.1 million acute overnight hospitalisations in NSW, children aged 0–17 years accounted for 10% (115,751 hospitalisations). Almost 6% of children and young people were hospitalised at least once

in 2012–13. Younger children were most likely to be hospitalised, with 15% of babies aged 0–12 months hospitalised at least once in their first year of life. In terms of total bed days, among the 5.5 million acute overnight bed days in NSW public hospitals in 2012–13, 345,929 (almost 6%) were for children and young people (Figure 20a).

There was a small group of children and young people with high levels of hospital use: 4,733 (0.3% of 0–17 year olds) were admitted to hospital three or more times in a year and spent 105,578 days in hospital (31% of the total number of bed days used by children and young people) (Figure 20b).

Figure 20a Acute overnight hospitalisations (public and private), children and young people by age group, NSW, 2012–13

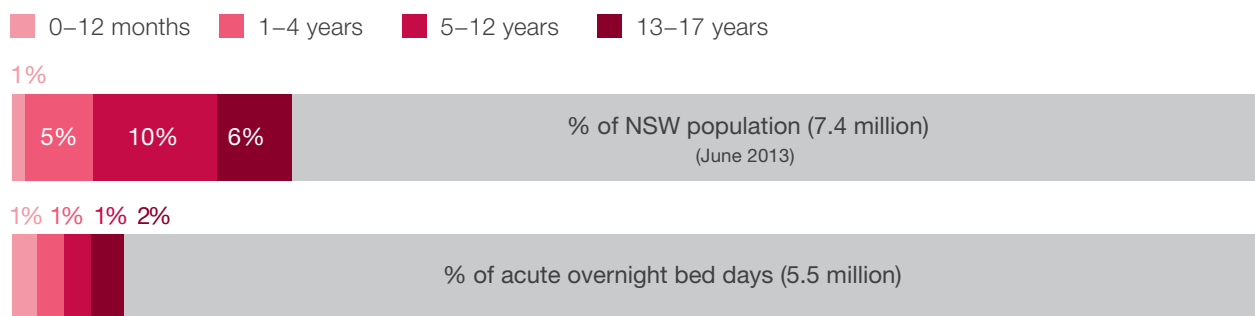
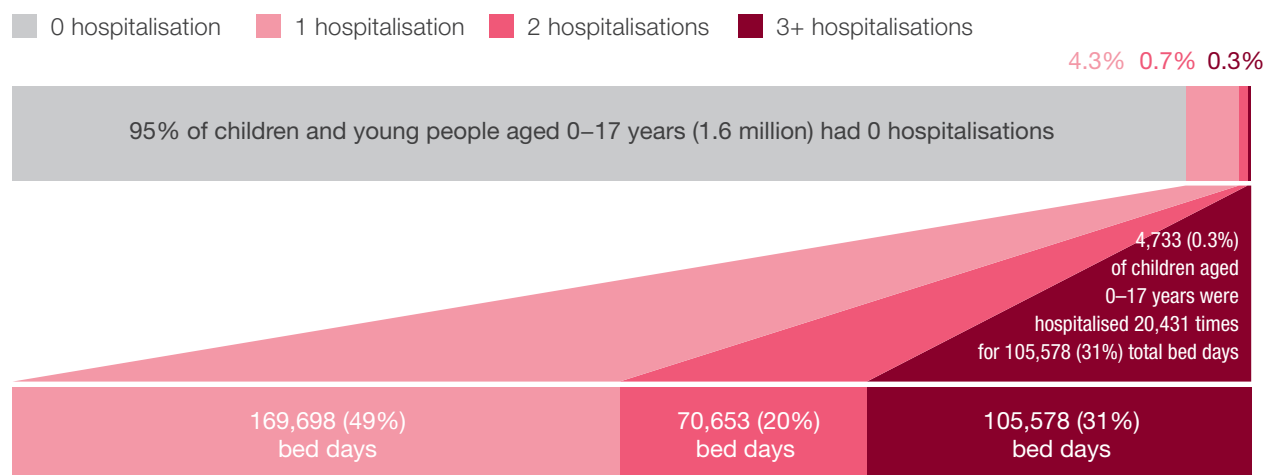


Figure 20b Acute overnight hospitalisations (public and private), children and young people by number of hospitalisations, NSW, 2012–13



Source: NSW Ministry of Health, extracted from SAPHaRI, Centre for Epidemiology and Evidence, NSW (BHI Analysis).

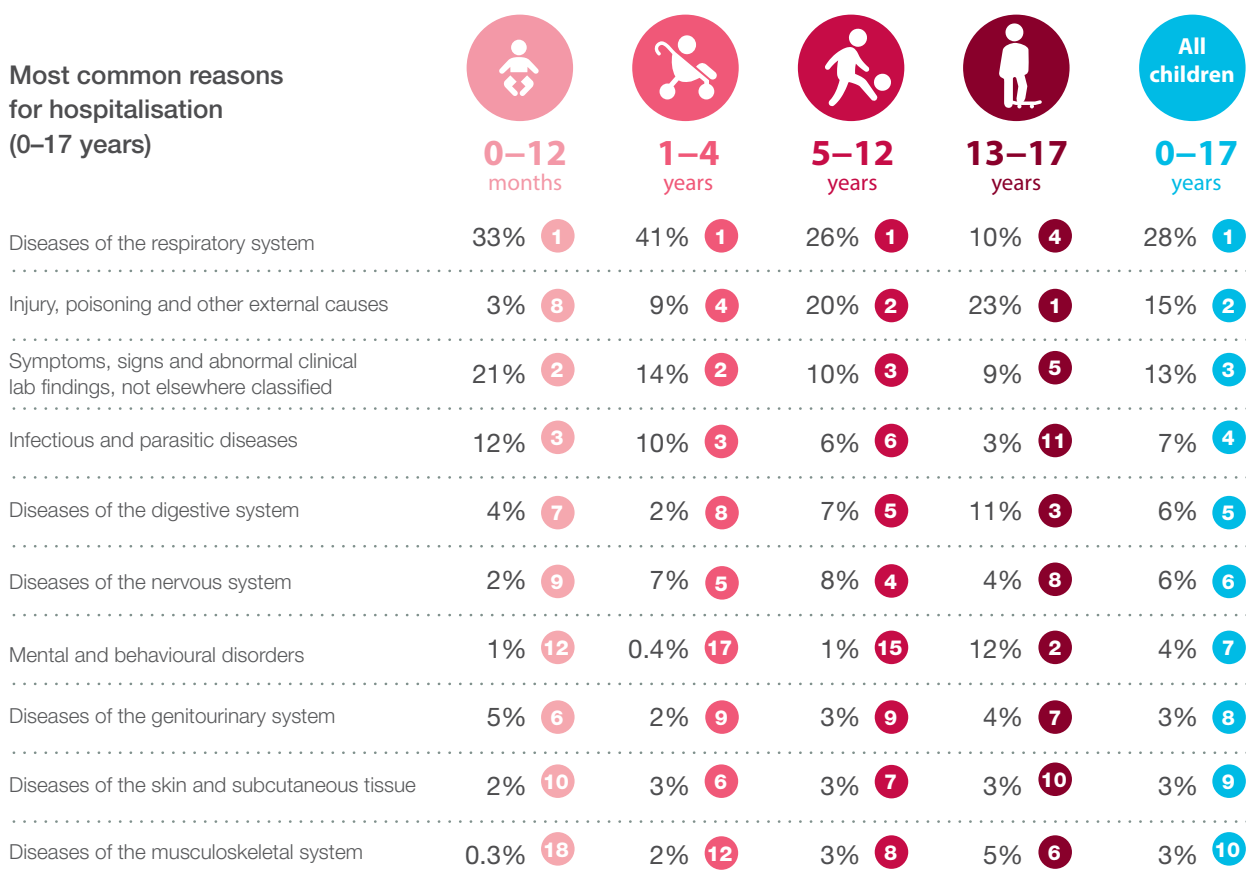


In each age group there was a concentration of hospitalisations among a relatively small number of patients. Among babies aged 0–12 months, 1,229 (1.2%) were admitted three or more times, accounting for 24,697 (32%) of acute overnight bed days used by this age group. In other age groups; less than 0.5% were admitted three or more times in the year.

In 2014–15, ‘diseases of the respiratory system’ and ‘injury, poisoning and other external factors’ were the two most common reasons for admission to hospital for children 0–17 years (28% and 15% of all acute overnight admissions, respectively) (Figure 21).

The most prevalent reasons for hospitalisation vary by age, reflecting different disease patterns that occur as children mature.

Figure 21 Most common reasons for hospitalisations (public and private), children and young people by age group, NSW, 2014–15



For each age group **1** = most common reason **2** = second most common reason etc.

Source: NSW Ministry of Health, extracted from SAPHaRI, Centre for Epidemiology and Evidence, NSW (BHI Analysis)

# Admissions to specialist paediatric hospitals in NSW

Specialist paediatric hospitals see a wide range of patients. They provide routine services to patients who live nearby; and specialist services to patients with complex or rare healthcare needs, regardless of where they live.

In the year July 2013 to June 2014, 27% of all acute overnight admissions for NSW children and young people aged 0–17 years occurred in specialist paediatric hospitals (31,556 acute overnight admissions in total). This included 29% of all admissions for babies aged 0–12 months; 29% of all admissions for children aged 1–4 years; 31% of all admission for children aged 5–12 years; and 20% of all admissions for children aged 13–17 years.

Overall, ‘diseases of the respiratory system’, and ‘injury poisoning and other external factors’ were the most common reasons for admission to both specialist paediatric and non-paediatric hospitals for those aged 0–17 years.

Most acute overnight hospitalisations by children and young people for cancer (85%) were made to specialist paediatric hospitals. In 2013–14, Sydney Children’s Hospital, Randwick received the majority of acute overnight admissions for cancer for those aged 0–17 years (41%).

Patients who were admitted for ‘congenital malformations, deformations and chromosomal abnormalities’ were mostly hospitalised in specialist paediatric hospitals (70% of these hospitalisations), as were patients admitted for ‘diseases of the blood and blood-forming organs disorders’ (61%) (Figure 23).

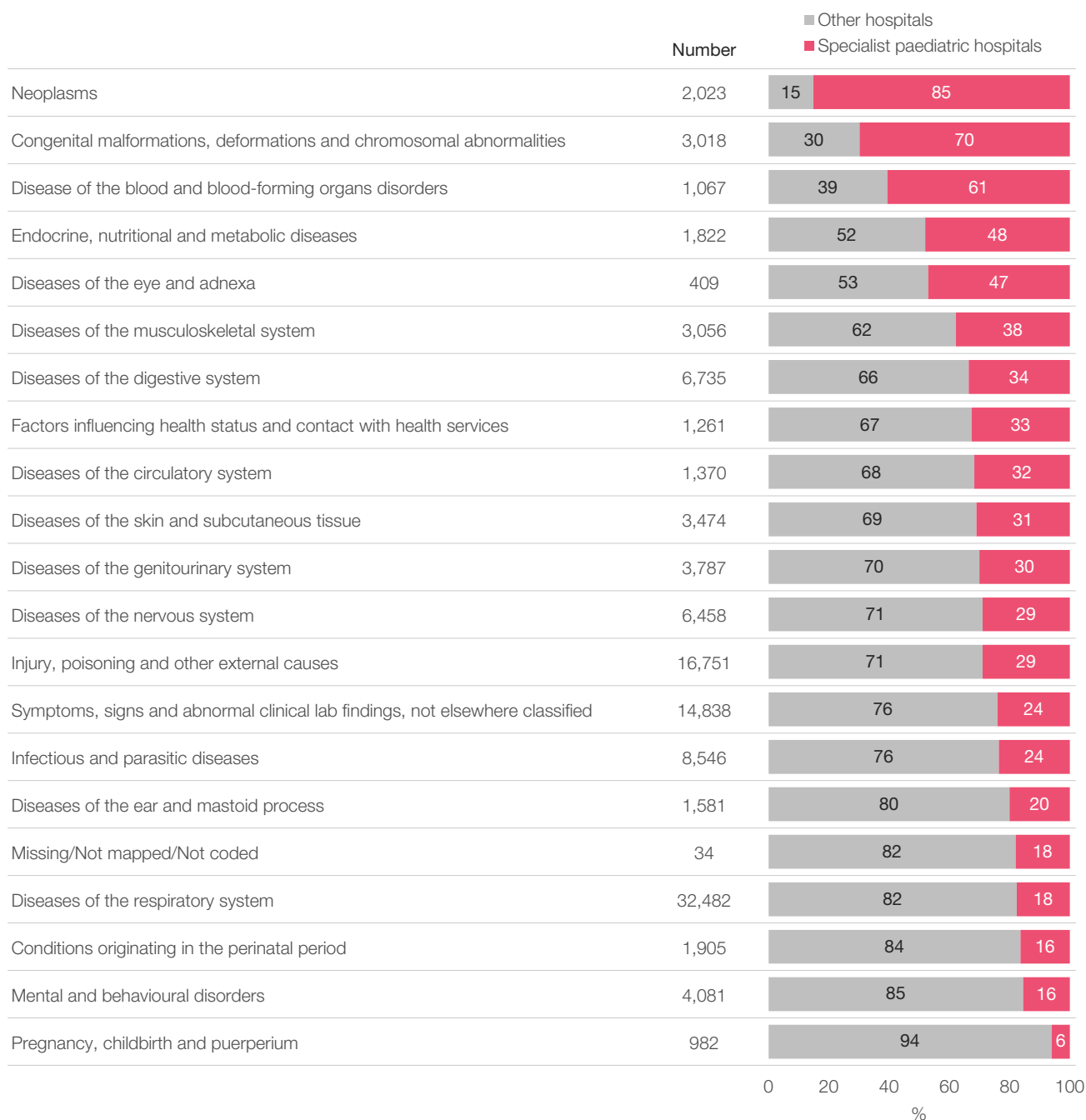
The majority of hospitalisations in NSW specialist paediatric hospitals were for medical reasons (78% of all admissions to John Hunter Children’s Hospital, 69% of admissions to The Children’s Hospital at Westmead and 72% to Sydney Children’s Hospital, Randwick).

Figure 22 Most common reasons for acute overnight hospitalisations (by number of admissions), NSW specialist paediatric hospitals, 2013–14

	The Children’s Hospital at Westmead	Sydney Children’s Hospital, Randwick	John Hunter Children’s Hospital
Diseases of the respiratory system	4,109	2,096	1,032
Diseases of the musculoskeletal system	3,724	1,445	1,227
Diseases of the digestive system	3,350	2,462	1,037
Diseases of the nervous system	2,470	1,914	480
Diseases of the ear, nose and throat	2,637	1,766	788

Source: NSW Ministry of Health, extracted from SAPHaRI, Centre for Epidemiology and Evidence, NSW (BHI Analysis)

Figure 23 Reasons for acute overnight hospitalisations (by percentage), specialist paediatric hospitals and non-paediatric hospitals (public and private), 0–17 years, NSW, 2013–14



Source: NSW Ministry of Health, extracted from SAPHaRI, Centre for Epidemiology and Evidence, NSW (BHI Analysis)

# Experiences of care in NSW public hospitals

The NSW Admitted Children and Young Patients Survey gathered information about the experiences of care of 8,393 children or young people who were admitted overnight to a NSW public hospital during 2014. Questionnaires were completed either by the young people themselves, or by a parent on their behalf.

Overall, the hospital care received by children and young people was rated as 'very good' by 63% of respondents and 'good' by 31%. If asked by family and friends, most (76%) said they would 'speak

highly' of the hospital and that children were 'definitely' helped by the treatment they received in hospital (81%).

There were less positive experiences of care reported about parking and communication about medication side effects (Figure 24).

Healthcare Observer provides detailed results from the NSW Admitted Children and Young Patients Survey at [bhi.nsw.gov.au/healthcare\\_observer](http://bhi.nsw.gov.au/healthcare_observer)

Figure 24 Experiences of public hospital care, 0-17 years, NSW Admitted Children and Young Patients Survey, 2014<sup>3</sup>



Aspects of care	Questions	Responses
Coordination and continuity	How well organised was the care your child received in hospital?	<p>58% Very well organised, 37% Fairly well organised, 4% Not well organised</p>
	In your opinion, did the doctors who treated your child know enough about their medical history?	<p>68% Yes, always, 26% Yes, sometimes, 6% No</p>
	In your opinion, did the nurses who treated your child know enough about their care and treatment?	<p>77% Yes, always, 20% Yes, sometimes, 3% No</p>
Respect and dignity	Did you feel your child was treated with respect and dignity while they were in the hospital?	<p>88% Yes, always, 11% Yes, sometimes, 1% No</p>
	Were the doctors polite and courteous?	<p>88% Yes, always, 10% Yes, sometimes, 2% No</p>
	Were the nurses polite and courteous?	<p>85% Yes, always, 14% Yes, sometimes, 1% No</p>
	Was your child given enough privacy during their hospital stay?	<p>71% Yes, always, 23% Yes, sometimes, 6% No</p>
Engagement and participation	Were you involved, as much as you wanted to be, in decisions about your child's care and treatment?	<p>69% Yes, definitely, 27% Yes, to some extent, 4% No</p>
Comprehensive and whole-person care	At the time your child was discharged, did you feel that they were well enough to leave the hospital?	<p>92% Yes, 8% No</p>
Assistance and responsiveness	If you needed to talk to a doctor, did you get the opportunity to do so?	<p>52% Yes, always, 42% Yes, sometimes, 6% No</p>
	Did a health professional discuss your worries or fears about your child with you?	<p>44% Yes, completely, 45% Yes, to some extent, 10% No</p>
Safety and hygiene	Did you see the health professionals wash their hands, or use hand gel to clean their hands, before touching your child?	<p>58% Yes, always, 20% Yes, sometimes, 9% No, I did not see this, 13% Can't remember</p>
Trust and confidence	Did you have confidence and trust in the doctors treating your child?	<p>78% Yes, always, 20% Yes, sometimes, 2% No</p>
	Did you have confidence and trust in the nurses treating your child?	<p>80% Yes, always, 19% Yes, sometimes, 1% No</p>
Outcomes	Did the care and treatment received in hospital help your child?	<p>81% Yes, definitely, 16% Yes, to some extent, 3% No, not at all</p>
	Is the problem your child went to hospital for...?	<p>81% Much better, 11% A little better, 7% About the same, 1% A little worse, 1% Much worse</p>

Source: BHI, NSW Patient Survey Program, Admitted Young Patients Survey January–December 2014

# Experiences of care in NSW public hospitals

Responses to the NSW Admitted Children and Young Patients Survey differed across age groups.

Overall, the hospital care received by children and young people aged 0–17 years was rated ‘very good’ by 63% of respondents. However, this percentage varied from 60% for children aged 0–12 months and 1–4 years to 69% for those aged 13–17 years (Figure 25).

## Accessibility

For all hospitalised children aged 0–17 years, most respondents (72%) said the time waited from arrival at hospital to being taken to their room was ‘about right’. Across the age groups, the proportion of respondents who said this waiting time was ‘about right’ ranged from 64% for children aged 1–4 years to 88% for those aged 0–12 months.

## Appropriateness

Parents of children aged 1–4 years were least likely to say the rooms and wards were ‘very clean’ (53%), toilets and bathrooms were ‘very clean’ (48%), or rate the overnight facilities as ‘very good’ (16%).

Parents of children aged 1–4 years and 5–12 years were however, most likely to say they were ‘always’ allowed to stay with their child while they being treated (94% and 93%, respectively).

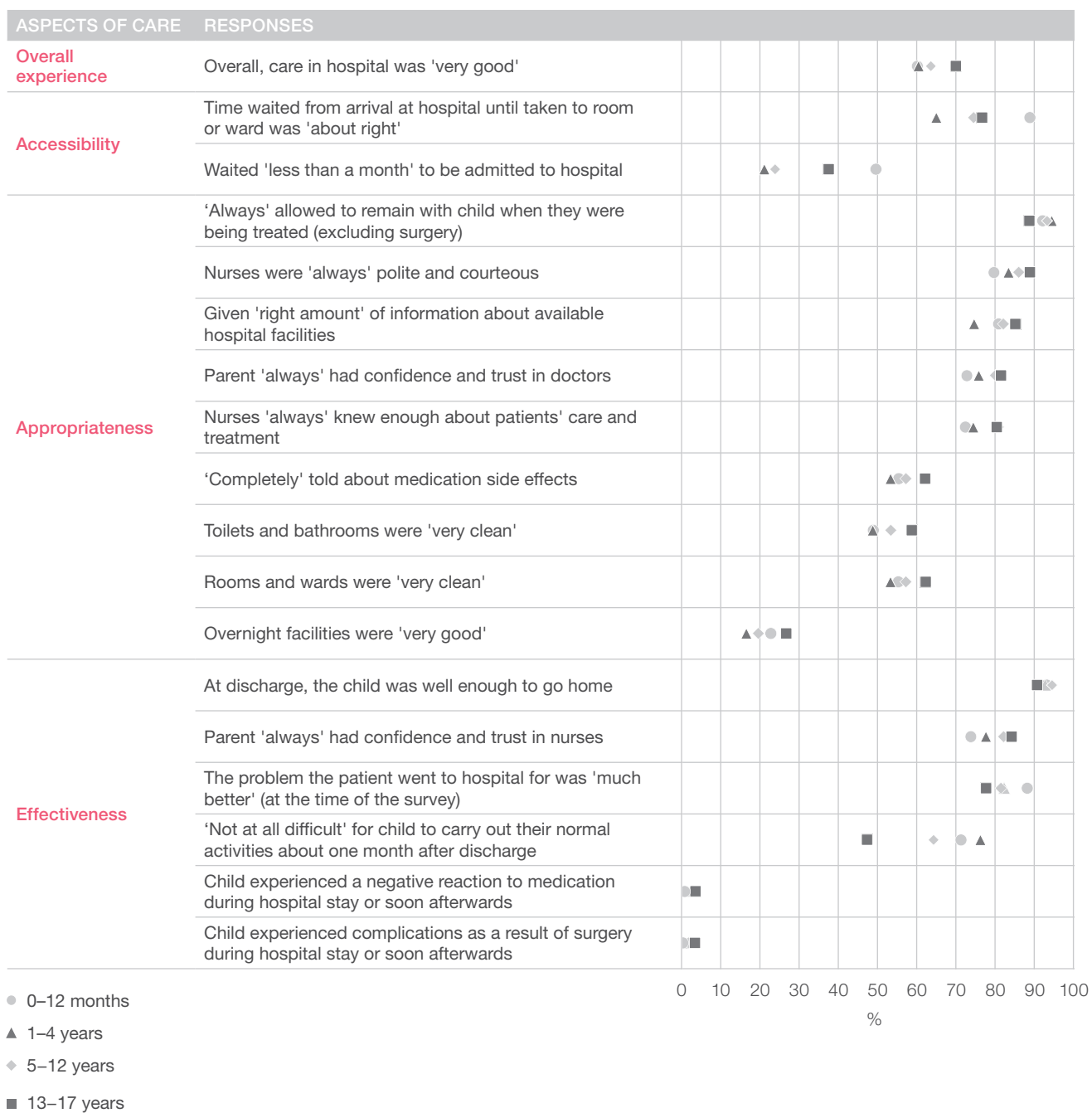
## Effectiveness

For all age groups combined, 78% of respondents said that they ‘always’ had confidence and trust in the doctors, 80% said they ‘always’ had confidence and trust in the nurses, and 85% said the nurses were ‘always’ polite and courteous. Across age groups, parents of babies aged 0–12 months were least likely to answer these questions positively (72%, 73% and 79%, respectively).

While less than half of respondents in the 13–17 year age group (47%) said it was ‘not at all difficult’ to resume normal activities about a month after discharge, a higher proportion of respondents for children aged 0–12 months, 1–4 years and 5–12 years did so (71%, 76% and 74%).

Parents of babies aged 0–12 months, were most likely to say that the problem their child went to hospital for was ‘much better’ at the time of the survey (88%) with respondents in the 13–17 year age group least likely to do so (77%). The highest proportion of respondents who said they experienced a complication as a result of surgery during or shortly after their hospitalisation, was in the 13–17 year age group (3%).

Figure 25 Experiences of public hospital care across age groups, NSW Admitted Children and Young Patients Survey, 2014



Source: BHI, NSW Patient Survey Program, Admitted Young Patients Survey January-December 2014

# Experiences of care in specialist paediatric hospitals

The 2014 NSW Admitted Children and Young Patients Survey received responses from 783 patients admitted to specialist paediatric hospitals (9% of all responses).

For four out of 65 survey questions, specialist paediatric hospitals received higher ratings of care than non-paediatric hospitals: whether parents would 'speak highly' of the hospital (83% versus 73%); 'always' had confidence and trust in doctors (81% versus 76%); whether doctors were 'always' polite and courteous (91% versus 86%); and whether facilities were available for parents to make drinks or food (80% versus 67%; data not shown) (Figure 26).

Non-paediatric hospitals were rated more favourably on questions about cleanliness (of rooms and toilets), whether the time spent in the ED, or the time patients waited until being taken to their room was 'about right', whether the problem patients went to hospital for was 'much better' at the time of the survey, and whether the patient experienced a complication as a result of surgery (Figure 26).

## Experiences in individual specialist paediatric hospitals

There were also differences in responses provided about the experience of care for children and young people admitted to individual specialist paediatric hospitals (see Appendix 2).

For 11 questions, Sydney Children's Hospital, Randwick was rated more positively. Parents of children admitted to Sydney Children's Hospital, Randwick were more likely to say they would rate the care their child received as 'very good' (75% versus 62% for non-paediatric hospitals); that they would

speak highly of their child's hospital experience (88% versus 73%); that the care was 'very well organised' (67% versus 57%); and that the health professionals worked 'very well' together (71% versus 57%).

Four percent of children and young people aged 0–17 years admitted to Sydney Children's Hospital, Randwick however said they experienced a complication of surgery, compared with 1% in non-paediatric hospitals.

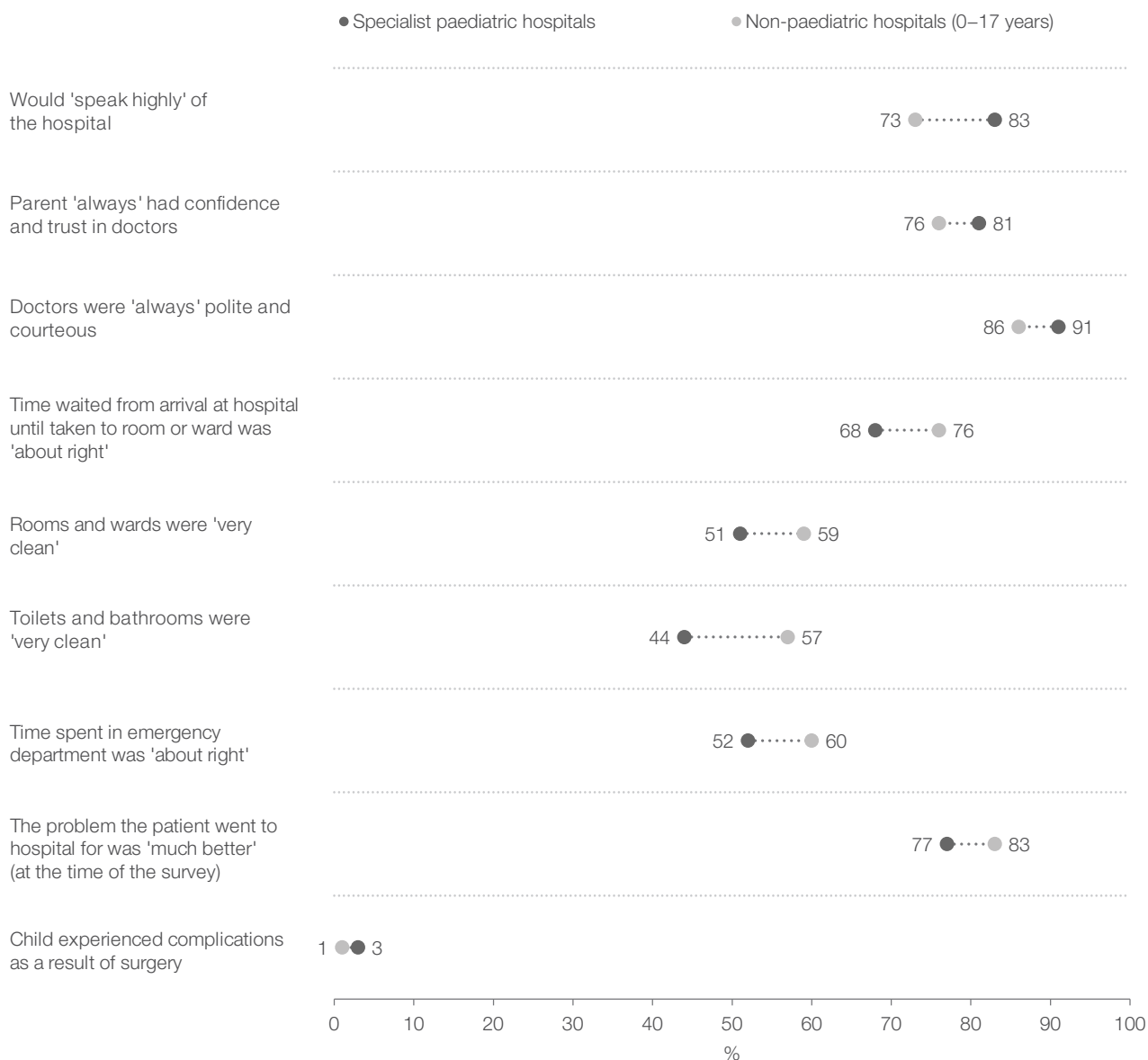
The Children's Hospital at Westmead received more positive ratings of care for four questions and less positive ratings for five questions. More parents of children admitted to The Children's Hospital at Westmead said they would 'speak highly' of their child's hospital experience (84% versus 73% for non-paediatric hospitals); that facilities were available for making drinks or food (83% versus 67%); and that on the day their child left hospital, discharge was not delayed (86% versus 78%).

Wards and rooms were rated as 'very clean' by less than half of those admitted to The Children's Hospital at Westmead (46%) compared with 59% for non-paediatric hospitals. Only 39% rated the toilets and bathrooms as 'very clean', compared with 57% for non-paediatric hospitals.

The amount of time waiting to be admitted to hospital was more likely to be rated 'about right' for John Hunter Children's Hospital (74%) compared with 60% for non-paediatric hospitals. Fewer people however said the toilets and bathrooms were clean (44% versus 57%); that the problem their child went to hospital for was 'much better' (77% versus 83%) or that it was 'not at all' difficult for them to resume normal activities about a month after discharge (58% versus 66%). (Appendix 2).



Figure 26 Experiences of hospital care, specialist paediatric hospitals (combined) and non-paediatric public hospitals, 0–17 years, NSW Admitted Children and Young Patients Survey, 2014



Source: BHI, NSW Patient Survey Program, Admitted Young Patients Survey January–December 2014



# Timeliness of elective surgery

# Timeliness of elective surgery

Surgery can be a stressful and worrying event for children and their families. Elective, or planned surgery, is surgery that a doctor considers necessary but can be delayed by at least 24 hours. It is classified in three urgency categories. Each category has a clinically recommended maximum time within which the surgery should occur:

- Urgent elective surgery (within 30 days)
- Semi-urgent elective surgery (within 90 days)
- Non-urgent elective surgery (within 365 days).

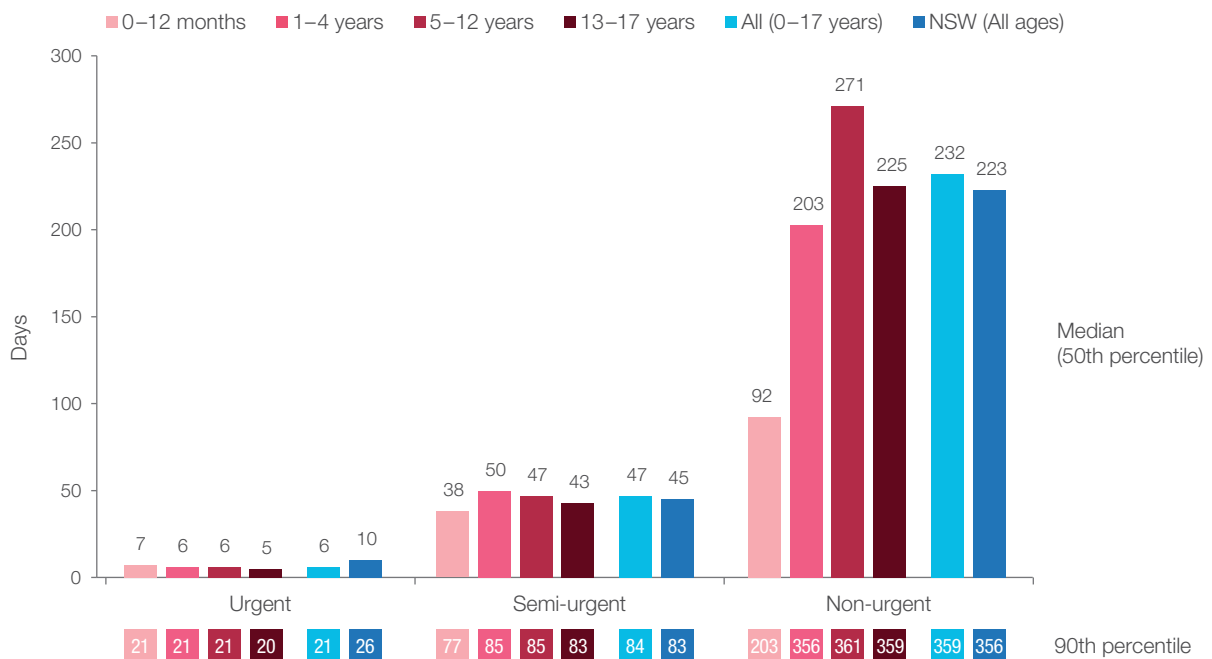
In 2014–15, children and young people in NSW aged 0–17 years underwent 21,984 elective surgical procedures in NSW public hospitals (10% of procedures performed in public hospitals). There was variation across age groups in the median waiting time for elective surgery. For non-urgent surgery, the median waiting time ranged from 92 days for babies aged 0–12 months to 271 days for children aged 5–12 years (Figure 27).

Tonsillectomy was the most common procedure performed overall, accounting for 20% of elective surgical procedures in the 0–17 year age group (4,314 procedures in total). More than half of all tonsillectomies were performed in the 5–12 year age group (52%).

Tonsillectomy and adenoidectomy had the longest median waiting times. In the different age groups, median waiting times for tonsillectomy ranged from 170 days for 1–4 year olds to 289 days and 295 days for 5–12 year olds and 13–17 year olds respectively (Figure 28).

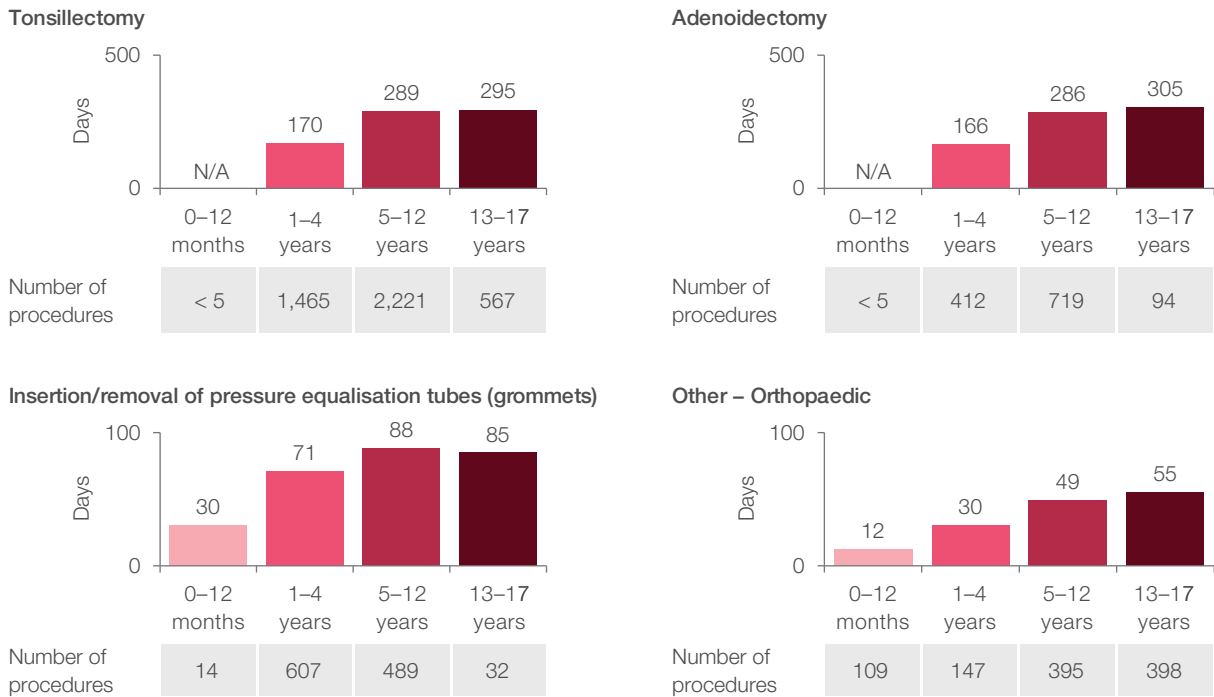
Overall in 2014–15, 96% of elective surgery procedures were performed within clinically recommended timeframes (100% of urgent surgery, 95% of semi-urgent and non-urgent surgery). There was variation across age groups. Children aged 5–12 years had the lowest overall percentage of elective surgery performed on time (95%) and, together with 13–17 year olds, had the lowest percentage of non-urgent surgery performed on time (both 94%) (Figure 29).

Figure 27 Median (50th percentile) and 90th percentile waiting times for elective surgery, by urgency and age group, NSW public hospitals, 2014–15



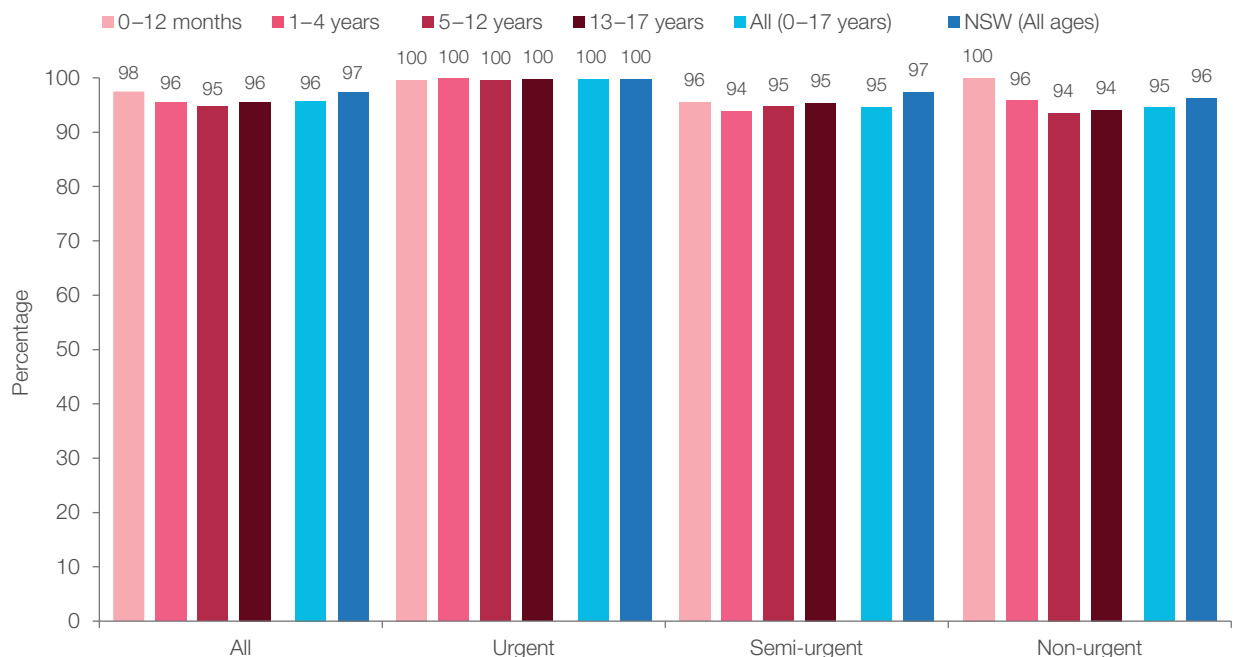
Source: NSW Health, Waiting List Collection On-line System

Figure 28 Median (50th percentile) waiting times and volumes, by selected elective surgery procedures and age group, NSW, public hospitals, 2014–15



Source: NSW Health, Waiting List Collection On-line System

Figure 29 Percentage of elective surgery procedures performed on time, by age group, NSW public hospitals, 2014–15



Note: Excluding staged surgery  
Source: NSW Health, Waiting List Collection On-line System

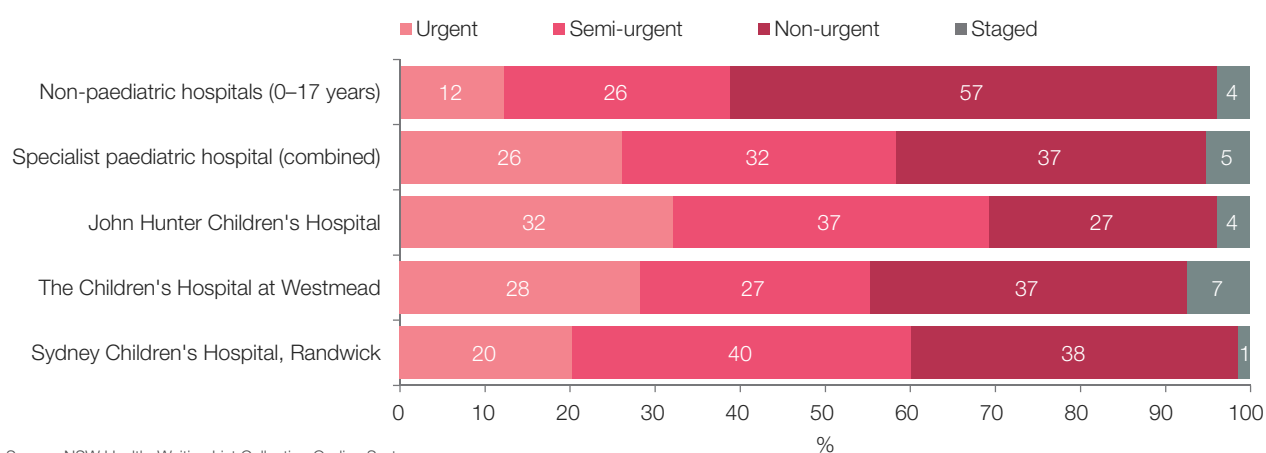
# Timeliness of elective surgery in specialist paediatric hospitals

In 2014–15, there were 10,178 elective surgical procedures performed in specialist paediatric hospitals. This represents 46% of all elective surgery procedures performed for children and young people aged 0–17 years in NSW public hospitals during this time. Specialist paediatric hospitals had a higher proportion of elective surgical procedures that were urgent than non-paediatric hospitals (Figure 30).

Median waiting times for elective surgery were longer at non-paediatric hospitals across all urgency categories. The percentage of semi-urgent and non-urgent surgery performed within recommended timeframes was lower in specialist paediatric hospitals compared with non-paediatric hospitals (Figure 31).

A higher proportion of complex surgery is performed at specialist paediatric hospitals (Figure 32).

Figure 30 Proportion of elective surgery by urgency category, specialist paediatric and non-paediatric public hospitals, NSW, 2014–15



Source: NSW Health, Waiting List Collection On-line System

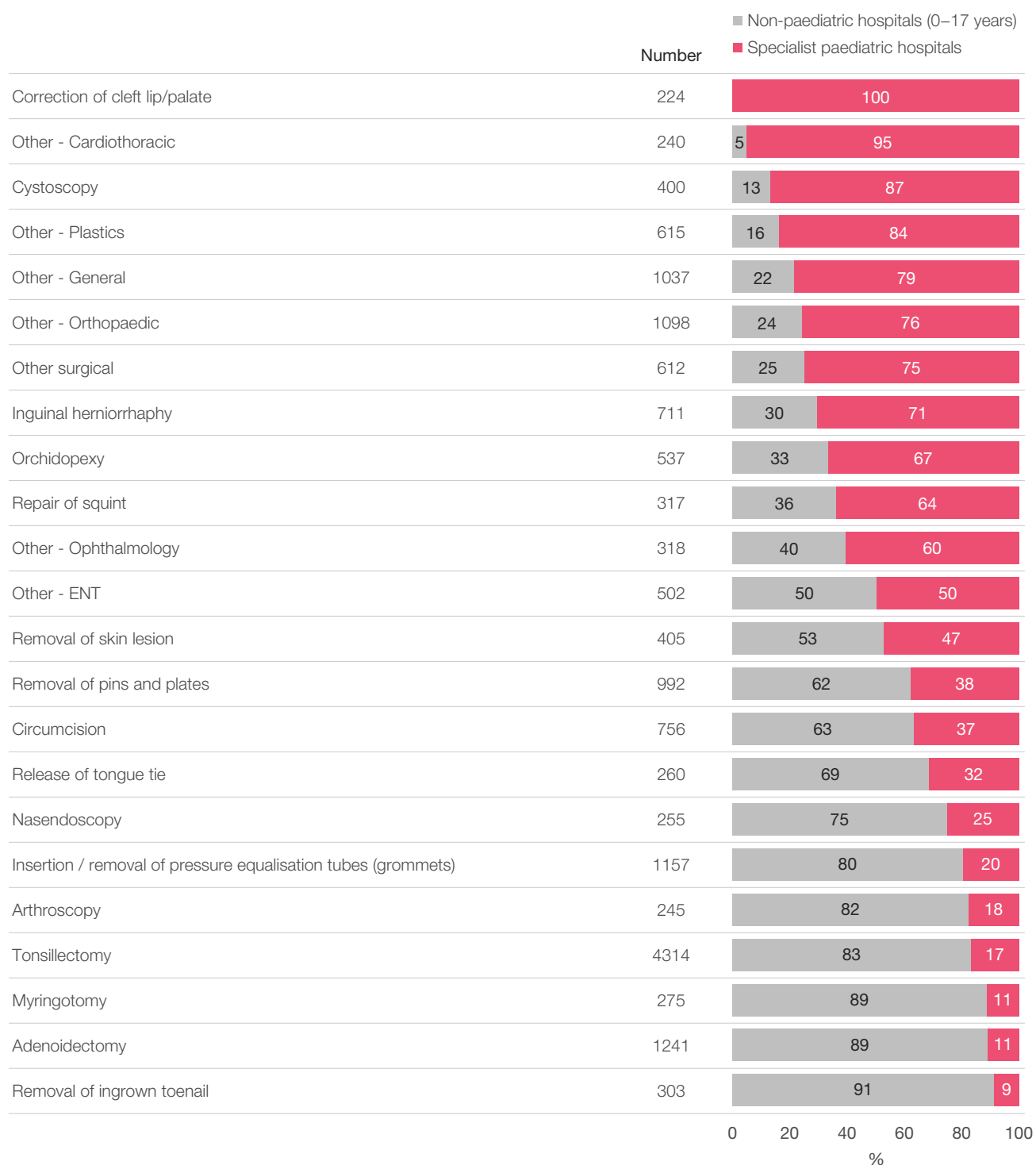
Figure 31 Median (50th percentile) waiting times, number of elective surgery procedures and percentage performed on time, specialist paediatric hospitals and non-paediatric hospitals, NSW 2014–15

	Urgent			Semi-urgent			Non-urgent			All	
	Median (days)	No.	% on time	Median (days)	No.	% on time	Median (days)	No.	% on time	No.	% on time
Specialist paediatric hospitals (combined)	6	2,671	100	41	3,271	92	158	3,715	93	9,619	94
Sydney Children's Hospital, Randwick	6	635	100	35	1,248	98	158	1,204	97	3,087	98
The Children's Hospital at Westmead	5	1,664	99	47	1,591	88	161	2,201	90	5,456	92
John Hunter Children's Hospital	6	372	99	40	432	91	144	310	96	1,114	95
Non-paediatric public hospitals (0–17 years)	7	1,462	100	53	3,122	97	275	6,763	96	11,347	97
NSW (all ages)	10	47,492	100	45	69,288	97	223	87,324	96	204,104	97

Note: Excluding staged surgery

Source: NSW Health, Waiting List Collection On-line System

Figure 32 Most commonly performed procedures (by number and percentage), specialist paediatric hospitals and non-paediatric public hospitals, NSW, 2014–15



Source: NSW Health, Waiting List Collection On-line System

# Hospital care for children and young people – an international comparison

Survey results from other healthcare systems can provide context and insight about the relative performance of NSW hospitals.

England's 2014 National Health Service (NHS) Children and Young People's Inpatient and Day Case Survey (children and young people aged 0–15 years)<sup>4</sup> contained a number of questions that were sufficiently similar to compare results with those from the 2014 NSW Admitted Children and Young Patients Survey (0–17 years). A comparison of the most positive response options to these questions is shown in Figure 33a (all ages) and 33b (for children 0–7 years).

Across the two surveys, a similar proportion of respondents said they received information in a way they could understand (NSW 82%; NHS 82%); that they 'always' had trust and confidence in hospital staff (NSW 78% [doctors]; NHS 79% [staff member]); and were 'completely' involved in decisions about their child's care and treatment (NSW 69%; NHS 65%).

However there were some important differences in results across the two surveys:

- Respondents to the NSW survey were less likely to say hospital staff 'definitely' worked well together (NSW, 59%; NHS 74%). Among respondents to the NSW survey, 56% said wards and rooms were 'very clean' compared with 67% in the NHS
- Overnight facilities for carers were rated as 'very good' by 19% of respondents in the NSW survey compared with 31% in the NHS survey
- Parents surveyed in NSW were more positive than those in England about aspects of information flow. In NSW, 87% of respondents said they received the 'right amount' of information about their child's care or treatment during their hospital stay, while 70% of NHS survey respondents said they were 'definitely' kept informed about what was happening while their child was in hospital

- For the 0–7 year age group, 89% of NSW parents said they were told who to contact if worried about their child following discharge, compared with 76% who responded to the NHS survey
- A larger proportion of parents in the NHS survey (36%) provided the most positive rating for hospital food for children aged 0–7 years compared with 11% of parents in the NSW survey. The majority of parents of children aged 0–7 years in the NHS survey (66%) said staff communicated with their child in a way the child could understand compared with only 50% in NSW.

See Appendix 3 for a comparison of question wording and rating scales used in these surveys.

## Comparing different surveys

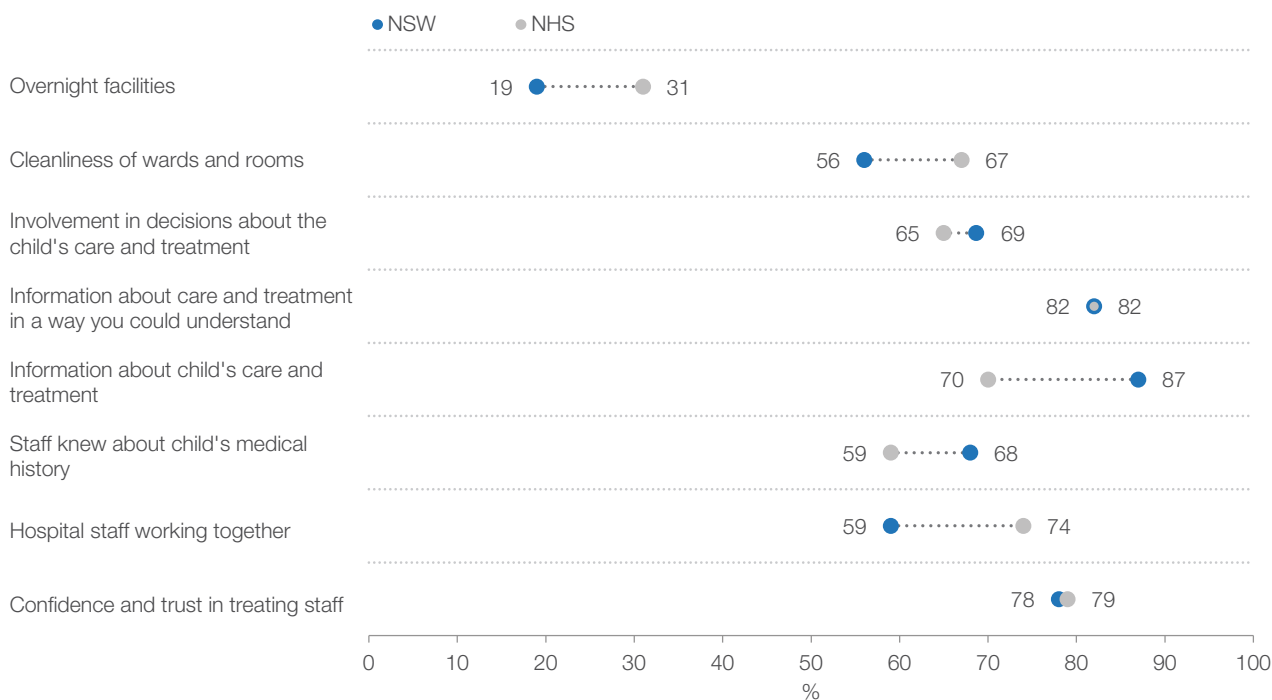
Differences in survey methodology mean that results of the 2014 NHS and NSW surveys are not directly comparable. Caution is therefore needed in interpreting results.

NHS survey results were standardised by admission, age and gender, NSW survey results were not standardised; the NHS survey included inpatients and day cases; the NSW survey included only overnight patients; the NHS survey used three questionnaires; the NSW survey used two. Different question formulations and response options were used.

For more information about the NHS Children and Young People's Inpatient and Day Case Survey visit [www.cqc.org.uk/content/children-and-young-peoples-survey-2014](http://www.cqc.org.uk/content/children-and-young-peoples-survey-2014). For more information about the NSW Admitted Young Patients Survey visit [www.bhi.nsw.gov.au/nsw\\_patient\\_survey\\_program/admitted\\_child\\_and\\_young\\_patient\\_survey](http://www.bhi.nsw.gov.au/nsw_patient_survey_program/admitted_child_and_young_patient_survey)

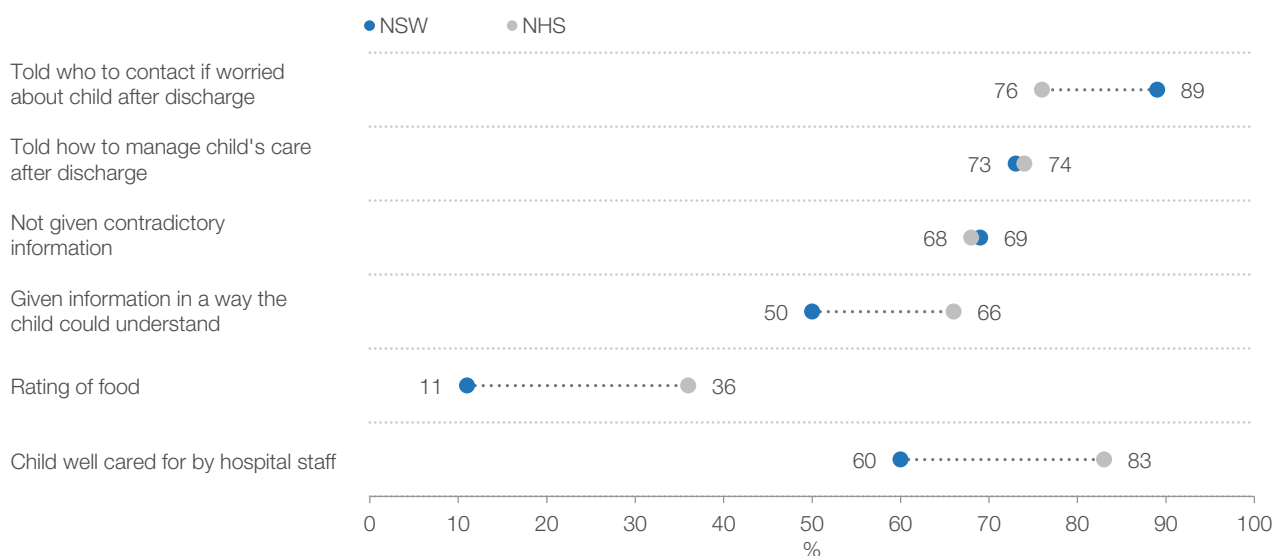


Figure 33a Experiences of hospital care (selected results), NHS Children and Young People's Inpatient and Day Case Survey and NSW Admitted Children and Young Patients Survey (all ages), 2014



Sources: BHI, NSW Patient Survey Program, Admitted Young Patients Survey January–December 2014, NHS Children and Young People's Inpatient and Day Case Survey, 2014

Figure 33b Experiences of hospital care (selected results), NHS Children and Young People's Inpatient and Day Case Survey and NSW Admitted Children and Young Patients Survey (0–7 years), 2014



Sources: BHI, NSW Patient Survey Program, Admitted Young Patients Survey January–December 2014, NHS Children and Young People's Inpatient and Day Case Survey, 2014



# Appendices

# Appendix 1

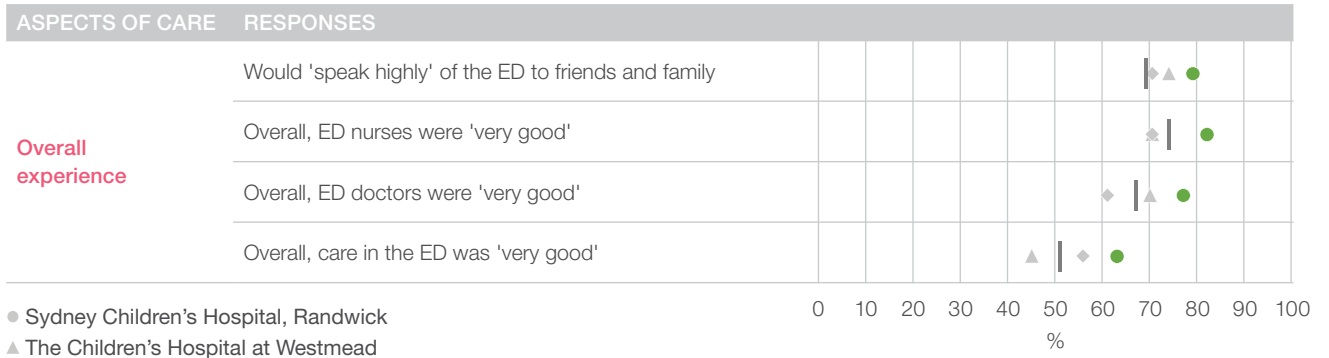
## Experiences of emergency department care, specialist paediatric hospitals (individual) and non-paediatric public hospitals, 0–17 years, NSW Emergency Department Patient Survey, 2014–15



● Sydney Children's Hospital, Randwick  
 ▲ The Children's Hospital at Westmead  
 ◆ John Hunter Children's Hospital  
 | Non-paediatric public hospitals (0–17 years) as reference group

Red = Significantly lower    Green = Significantly higher    Grey = No significant difference

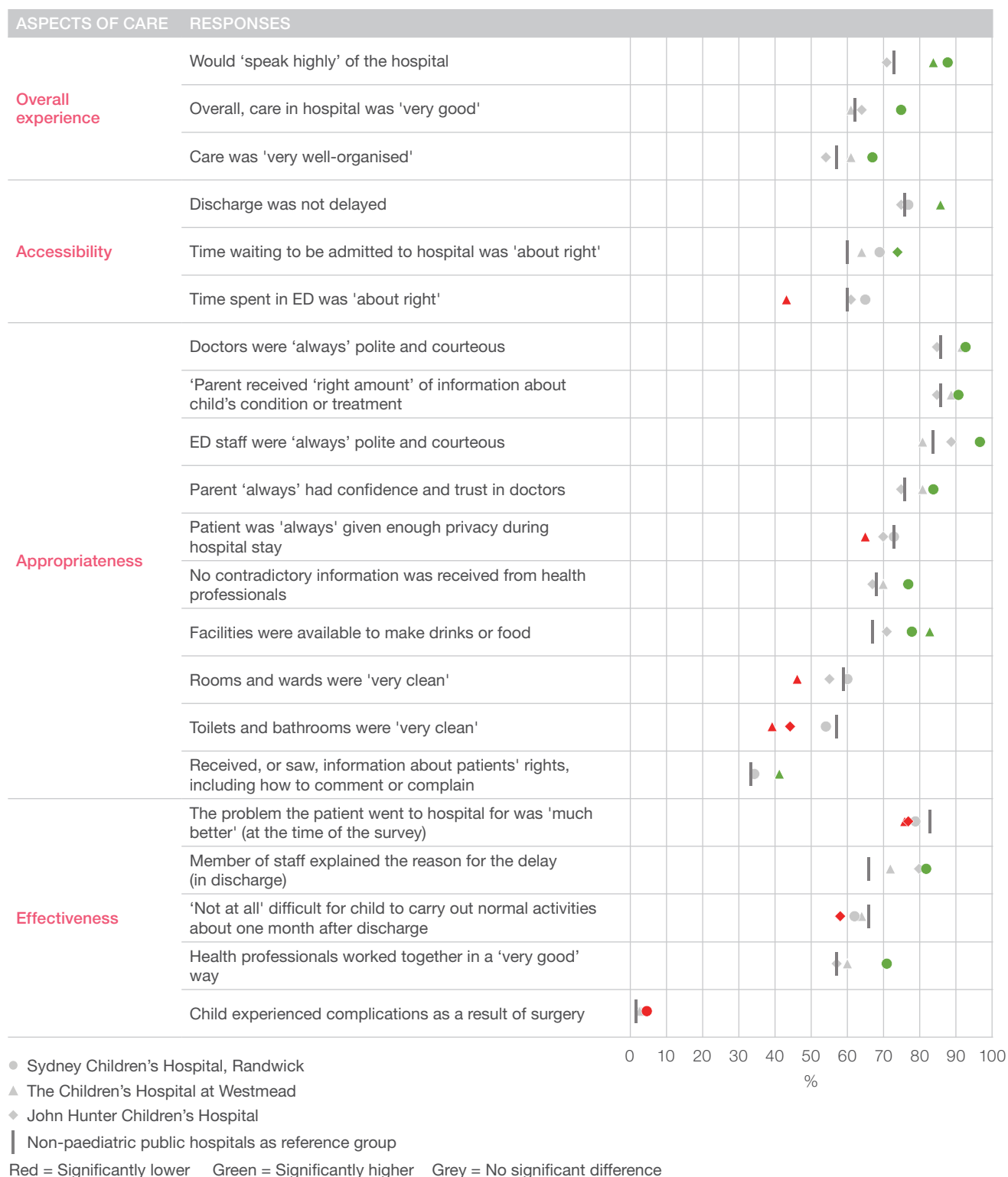
Source: BHI, NSW Patient Survey Program, Emergency Department Patient Survey April 2014–March 2015



Source: BHI, NSW Patient Survey Program, Emergency Department Patient Survey April 2014–March 2015

# Appendix 2

## Experiences of hospital care, specialist paediatric hospitals (individual) and non-paediatric public hospitals, 0–17 years, NSW Admitted Children and Young Patients Survey, 2014



Source: BHI, NSW Patient Survey Program, Admitted Young Patients Survey January–December 2014

## Appendix 3

### Experiences of hospital care (selected results), NHS Children and Young People's Inpatient and Day Case Survey and NSW Admitted Children and Young Patients Survey (all ages), 2014

	NSW	Rating scale (points)	Most positive responses (%)	NHS	Rating scale (points)	Most positive responses (%)
<b>Overnight facilities</b>	How would you rate the overnight facilities for parents or carers?	5	19	How would you rate the facilities for parents or carers staying overnight?	5	31
<b>Cleanliness of wards and rooms</b>	How clean were the wards or rooms your child stayed in while in hospital?	4	56	P How clean do you think the hospital room or ward was that your child was in?	4	67
<b>Involvement in decisions about the child's care and treatment</b>	Were you involved, as much as you wanted to be, in decisions about your child's care and treatment?	3	66	Were you encouraged to be involved in decisions about your child's care and treatment?	3	65
<b>Given enough information about medicines</b>	Did a health professional in the hospital tell you about medication side effects to watch for?	3	51	Were you given enough information about how your child should use the medicine(s) (e.g. when to take it, or whether it should be taken with food)?	3	92
<b>Information about care and treatment in a way you could understand</b>	Did the doctors and nurses explain things in a way you could understand?	3	82	Did members of staff treating your child, give you information about their care and treatment in a way that you could understand?	3	82
<b>Information about child's care and treatment</b>	During your child's stay in hospital, how much information about their condition or treatment was given to you?	3	87	Did hospital staff keep you informed about what was happening whilst your child was in hospital?	3	70
<b>Staff knew about child's medical history</b>	In your opinion, did the doctors who treated your child know enough about their medical history?	3	68	Were the different members of staff caring for and treating your child aware of their medical history?	3	59
<b>Hospital staff working together</b>	How would you rate how well the health professionals worked together?	5	59	Did the members of staff caring for your child work well together?	3	74
<b>Confidence and trust in treating staff</b>	Did you have confidence and trust in the doctors treating your child?	3	78	Did you have confidence and trust in the members of staff treating your child?	3	79

## Appendix 3 (continued)

### Experiences of hospital care (selected results), NHS Children and Young People's Inpatient and Day Case Survey and NSW Admitted Children and Young Patients Survey (0–7 years), 2014

	NSW	Rating scale (points)	Most positive responses (%)	NHS	Rating scale (points)	Most positive responses (%)
<b>Told who to contact if worried about child after discharge</b>	Did hospital staff tell you who to contact if you were worried about your child's condition or treatment after they left hospital?	2	89	Did a member of staff tell you what to do or who to talk to if you were worried about your child when you got home?	3	76
<b>Told how to manage child's care after discharge</b>	Thinking about when your child left hospital, were you given enough information about how to manage their care at home?	3	73	Did a member of staff give you advice about caring for your child after you went home?	3	74
<b>Not given contradictory information</b>	Did you receive contradictory information from health professionals in the hospital – for example, different opinions on your child's treatment?	3	69	Were you told different things by different people, which left you feeling confused?	3	68
<b>Given information in a way the child could understand</b>	Did the doctors and nurses explain things in a way your child could understand?	3	50	Did members of staff communicate with them in a way your child could understand?	3	66
<b>Rating of food</b>	How would you rate the hospital food?	5	11	Did your child like the hospital food provided?	3	36
<b>Child well cared for by hospital staff</b>	Overall, how would you rate the care your child received while in hospital?	5	60	Do you feel your child was well looked after by hospital staff?	3	83
<b>Overall, child's experience of care</b>	If asked about your child's hospital experience by friends and family how would you respond?	3	76	P Overall, I felt my child my child had ...	10	33



# References

1. Bureau of Health Information. Healthcare in Focus 2013: Spotlight on Measurement. Sydney (NSW); BHI; 2014.
2. Centre for Epidemiology and Evidence. The Health of Children and Young People in NSW: Report of the Chief Health Officer 2014. Sydney (NSW): NSW Ministry of Health: 2014.
3. Bureau of Health Information. Snapshot Report Admitted Children and Young Patients Survey, Sydney (NSW); BHI; 2015.
4. Care Quality Commission. National NHS patient survey programme, Children and Young People's Inpatient and Day Case Survey 2014: National results. Newcastle upon Tyne (UK): Care Quality Commission: 2015.

# Acknowledgements

The Bureau of Health Information (BHI) is the main source of information for the people of NSW about the performance of their public system. A NSW board-governed organisation, BHI is led by Acting Chairperson Mary Elizabeth Rummery AM and Chief Executive Jean-Frédéric Lévesque MD, PhD.

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## 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.

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