Healthcare Quarterly

# Technical Supplement

Emergency department, ambulance,
admitted patients and elective surgery

October to December 2018

bureau of
health
information

# Contents

# Introduction

This technical supplement describes the data, methods and technical terms used to calculate descriptive statistics and performance measures reported in the Bureau of Health Information's (BHI) *Healthcare Quarterly* report.

The supplement is technical in nature and intended for audiences interested in the creation and analysis of health system performance information.

A chronological account of additions and enhancements to the data and methods is available from the Technical supplements section of the BHI website **bhi.nsw.gov.au**

# Emergency department

This section contains information about the data and methods used for calculating measures of emergency department (ED) activity and performance reported in *Healthcare Quarterly*.

## Data sources

### Emergency Department Data Collection

ED information in *Healthcare Quarterly* is based on analyses of attendance data in the Emergency Department Data Collection (EDDC). extracted from the centralised data warehouse, the Health Information Exchange (HIE), administered by the NSW Ministry of Health. BHI received data file for Northern Beaches Hospital from the NSW Ministry of Health.

EDs are reported individually for hospitals in principal referral, major or district peer groups (A1, A2, A3, B, C1 and C2).

Facilities are included in *Healthcare Quarterly* following assessment of data completeness and accuracy, and in ways that support fair and meaningful comparison.

EDs in NSW have progressively replaced historic information systems with more contemporary electronic record systems. Changeover to a new electronic system may impact the completeness and reliability of input data or extraction from local systems to the HIE for periods longer than one quarter.

Quarters affected by significant changes, for example in policies or systems, are highlighted on time-trend graphs to make readers aware when such changes may contribute to shifts in trend between quarters.

To ensure accuracy in activity and performance comparisons between quarters in the October to December 2018 release of *Healthcare Quarterly*, information is provided on the number of hospitals contributing to the results in each quarter. This facilitates the interpretation of trends by showing the reader at what point in time new hospitals were introduced in quarterly reporting. Showing the fluctuations in the number of facilities contributing to results over time is meant to aid the reader's interpretation of changes in trends.

### Transfer of Care Reporting System

Data for calculating the number of ambulance arrivals and transfer of care time are downloaded from the Transfer of Care Reporting System (TCRS) portal. The TCRS incorporates data drawn from the NSW Ambulance information system and from the EDDC. Transfer of care is reported for hospitals where the ambulance incident number and the date can be identified in both the NSW Ambulance data and the EDDC.

## Summary of changes

Northern Beaches Hospital (peer group B) opened on 31 October 2018. On 30 October 2018, all services at Manly Hospital (peer group B) and acute care services at Mona Vale Hospital (peer group B) were transferred to Northern Beaches Hospital. Emergency care continues to be provided at Mona Vale Hospital through its Urgent Care Centre after 30 October. BHI does not report on activity and performance at Urgent Care Centres in NSW.

BHI has not reported on the timeliness of care in the emergency department for Northern Beaches Hospital, nor at the Northern Sydney LHD level, for October to December 2018 because of challenges experienced in the implementation of a new information system at Northern Beaches ED following its opening.

Individual hospital results for Manly and Mona Vale hospitals have also been removed from graphs and tables that would compare their results against other hospitals because the results only cover part of the reporting period, between 1 October 2018 and 30 October 2018.

Emergency department results from each of these three hospitals contribute to NSW and peer group B totals throughout this report and associated information products.

*Healthcare Quarterly* only includes data relating to publicly contracted services at Northern Beaches Hospital.

## Indicator specifications

The definitions of the indicators included in *Healthcare Quarterly* begin on page 8.

# Ambulance

This section contains information about the data and methods used for calculating measures of ambulance activity and performance that are reported in *Healthcare Quarterly*.

## Data source

### NSW Ambulance Computer Aided Dispatch System

The ambulance component of *Healthcare Quarterly* is based on analyses of data extracted from the NSW Ambulance Computer Aided Dispatch (CAD) system, which is used to manage and record ambulance activity and time points across the entire patient journey. The CAD system contains information from all ambulance local response areas in NSW. Information is recorded using calls, incidents, responses, transports, Emergency Department Network Access and Ambulance Release Teams as counting units.

The CAD system is a 'live' system and data is updated continuously. The NSW reporting system for CAD data is scheduled to refresh four times daily during business hours (at 6.30am, 10.30am, 2.30pm and 6.30pm). Records are checked for a rolling three-day period for any changes and updates are undertaken accordingly to reflect the changes. On the second day of the new calendar month, all records in the previous month are closed off, that is no further updating is allowed.

The priority codes included in *Healthcare Quarterly* are listed in Table 1. The following Priority Numbers have been excluded:

- 14 (Priority Error)
- 35 (ICEMS)
- 36 (ICEMS Urgent).

Measures of ambulance service activity and performance reported in *Healthcare Quarterly* are currently based on local response areas whose vehicles have an electronic system in place. These local response areas comprise the NSW totals reported in *Healthcare Quarterly*.

Results are reported for 24-hour, 24-hour with on-call, and non-24-hour local response areas which have reliable data in the CAD for five or more quarters. Data for community and volunteer ambulance local response areas are included in activity and performance totals for NSW and zones. Performance is not reported separately for this type of local response area due to the different types of services provided and data quality and completeness.

## Response grid changes and non-emergency patient transport

Changes to the way in which incidents and responses are coded are known as grid changes. Three grid changes over the past five years (March 2013, April 2015 and May 2016) saw some incidents, formerly coded as priority 1, subsequently coded as priority 2. Accordingly, there was an increase in the number of priority 2 incidents and a decrease in the number of priority 1 incidents around these times.

The introduction of the Patient Transport Service in May 2014 resulted in transfer of cases requiring less urgent patient transport from NSW Ambulance to NSW HealthShare. These changes have affected some results over time, and are represented as grey bars in relevant graphs throughout the *Healthcare Quarterly* report.

## Ambulance local response area types

Local response areas are functional units that deliver ambulance services. They generally comprise a station, one or more vehicles and paramedics. The size and staffing arrangements for local response areas differ across the state. In order to make fair comparisons of performance, in *Healthcare Quarterly*, local response areas are categorised into four types (Table 2).

All local response areas are included in activity and performance totals for NSW and zones.  Performance is not reported separately for some local response areas due to the different

types of services provided, small number of incidents, and data quality and completeness.

## Indicator specifications

The definitions of the indicators included in *Healthcare Quarterly* begin on page 8.

Table 1    Incident and response priority codes

| Code | Priority | Description | Example | Response required |
|------|----------|-------------|---------|-------------------|
| 1 | 1A Emergency | Highest priority<br>• Life-threatening case | Cardiac or respiratory arrest, unconscious, ineffective breathing | Immediate response<br>• Median within 10 minutes<br>• Under 'lights and sirens' |
|  | 1B Emergency | High priority | Unconscious | Emergency response<br>• Under 'lights and sirens' |
|  | 1C Emergency | Priority | Breathing problems, chest or neck injury, serious haemorrhage | Emergency response<br>• Under 'lights and sirens' |
| 2 | Urgent | Urgent | Abdominal pain | Urgent response without 'lights and sirens' within specified timeframes |
| 3 | Time-critical | Time-critical | Medical responses requested by medical practitioners | Undelayed response within specified timeframes |
| 4–9 | Non-emergency | Non-emergency | Routine transport | Routine |

Table 2    Ambulance local response area types

| Service type | Description |
|--------------|-------------|
| 24-hour | Primarily situated in urban areas providing mostly urban, 24-hour operation. These are higher volume response areas, the majority with multiple vehicles and ambulance staff. |
| 24-hour (with on-call) | Primarily situated in regional areas providing 24-hour operation, supplemented with on-call staff. |
| Non-24-hour | Primarily situated in regional and rural areas providing 8, 12 or 16-hour operation with remaining time covered by on-call staff. |
| Community and volunteer (volunteer ambulance officers, community first responder programs and community initiated groups) | Volunteer ambulance officers provide a first response and transport role in more remote areas. Some are attached to smaller stations, work with certified paramedics and respond in an ambulance vehicle.<br><br>Members of community first responder programs are attached to emergency services, such as Fire Rescue NSW, NSW Rural Fire Service and the NSW State Emergency Service, and respond in their agency vehicle. Community-initiated groups (not attached to a response agency) can form a community first responder unit. Members agree to be available on a regular basis and respond from within the community in a private, or community-funded, vehicle. |

# Admitted patients

This section contains information about the data and methods used for calculating measures of activity and performance for admitted patient episodes of care.

## Data source

### Admitted Patient Data Collection

Admitted patient information in *Healthcare Quarterly* is based on analyses of data in the Admitted Patient Data Collection (APDC). Data are extracted from a centralised data warehouse administered by the NSW Department of Health called the Health Information Exchange (HIE). BHI also received data file for Northern Beaches Hospital from the NSW Ministry of Health.

Hospitals are reported individually if they are classified as principal referral, major or district peer groups (A1, A2, A3, B, C1 and C2).

Facilities are included in *Healthcare Quarterly* following assessment of data completeness and accuracy, and in ways that support fair and meaningful comparison.

Quarters affected by significant changes, for example in policies or systems, are highlighted on time-trend graphs to make readers aware when such changes may contribute to shifts in trend between quarters.

To ensure accuracy in activity and performance comparisons between quarters in the October to December 2018 release of *Healthcare Quarterly*, information is provided on the number of hospitals contributing to the results in each quarter. This facilitates the interpretation of trends by showing the reader at what point in time new hospitals were introduced in quarterly reporting. Showing the fluctuations in the number of facilities contributing to results over time is meant to aid the reader's interpretation of changes in trends.

## Summary of changes

Northern Beaches Hospital (peer group B) opened on 31 October 2018. On 30 October 2018, all services at Manly Hospital (peer group B) and acute care services at Mona Vale Hospital (peer group B) were transferred to Northern Beaches Hospital. While these three hospitals contribute to overall results for NSW, Northern Sydney LHD and peer group B, they have been removed from tables and graphs that would compare their individual results against those of other hospitals because their results do not cover the full reporting period.

## Indicator specifications

The definitions of the indicators included in *Healthcare Quarterly* begin on page 8.

# Elective surgery

This section contains information about the data and methods used for calculating measures of activity and performance for elective surgeries.

## Data source

### Waiting List Collection On-line System

The elective surgery component of *Healthcare Quarterly* is based on analyses of data extracted from the central data warehouse, the Waiting List Collection On-line System (WLCOS). WLCOS includes information on the date a patient is listed for a surgical procedure, the type of procedure required, the specialty of the surgeon, the urgency category of their surgery and whether the patient is currently ready for surgery. Some of these factors may change during the time a patient is on the waiting list.

Facilities are included in *Healthcare Quarterly* following assessment of data completeness and accuracy, and in ways that support fair and meaningful comparison.

Quarters affected by significant changes, for example in policies or systems, are highlighted on time-trend graphs to make readers aware when such changes may contribute to shifts in trend between quarters.

To ensure accuracy in activity and performance comparisons between quarters in the October to December 2018 release of *Healthcare Quarterly*, information is provided on the number of hospitals contributing to the results in each quarter. This facilitates the interpretation of trends by showing the reader at what point in time new hospitals were introduced in quarterly reporting. Showing the fluctuations in the number of facilities contributing to results over time is meant to aid the reader's interpretation of changes in trends.

## Summary of changes

Northern Beaches Hospital (peer group B) opened on 31 October 2018. On 30 October 2018, all services at Manly Hospital (peer group B) and acute care services at Mona Vale Hospital (peer group B) were transferred to Northern Beaches Hospital.

Individual hospital results for Northern Beaches, Manly and Mona Vale hospitals have been removed from graphs and tables that would compare their results against other hospitals. BHI cautions against comparing these results with the results of other hospitals because they do not cover the full October to December 2018 reporting period. BHI cautions against comparing Northern Sydney LHD with other LHDs and results from previous quarters for the same reason.

Elective surgery results from each of these three hospitals contribute to NSW, Northern Sydney LHD and peer group B totals throughout this report and associated information products. *Healthcare Quarterly* only includes data relating to publicly contracted services at Northern Beaches Hospital.

Patients still waiting for surgery at Manly or Mona Vale hospitals on 30 October 2018 had their waiting time information transferred to the Northern Beaches Hospital. This means that some patients will have waiting times that exceed the number of days Northern Beaches Hospital has been open.

## Indicator definitions

The definitions of the indicators included in *Healthcare Quarterly* begin on page 8.

# Suppression rules

Small numbers in any group need to be treated cautiously to protect patients' identity.
BHI suppresses information if it is based on very few patients. If there are fewer than five patients in any group for admitted patient and emergency department data, patient numbers are displayed as < 5.

For ambulance reporting at the local response area level, local response areas with less than nine consecutive quarters of data and those with on average fewer than 100 responses per quarter were not included. Non-24-hour local response areas with a coefficient of variation over 10% were excluded. Local response areas that were classified as community and volunteer were also excluded. Results are shown on a non-nominal basis to illustrate intra-zone performance.

For elective surgery measures reported by urgency category, counts have been pooled with another urgency group. Because the staged procedure category is excluded from performance measure calculations, low counts in this group are not suppressed.

If there are fewer than 10 patients in any group, on-time performance and median waiting times are suppressed. If there are fewer than 100 patients in any group, the 90th percentile is suppressed.

# Indicator specifications

## Emergency department: Activity measures

| | |
|---|---|
| **All ED attendances** | All ED attendances is the count of every record in the ED visit database of the HIE. This count includes presentations of all ED visit types including emergency presentations, planned return visits, pre-arranged admissions, some outpatient visits, private referrals, persons pronounced dead on arrival and patients in transit.<br><br>This count excludes records entered in error (mode of separation = 99), telehealth and eHealth presentations (ED visit type = 12), and presentations by patients who are already admitted to the same hospital (ED visit type = 13). |
| **Emergency presentations** | Emergency presentations are records in the ED visit database of the HIE of presentations with an ED visit type of: emergency (1), an unplanned return visit for a continuing condition (3) or disaster (11). Emergency presentations in *Healthcare Quarterly* are reported by triage category. |
| **Mode of separation** | ED presentations by mode of separation includes all presentations at the ED that have a departure time recorded. Mode of separation categories include:<br><br>• Treated and discharged – presentations with mode of separation: admitted and discharged as patient within ED (2) and departed with treatment complete (4).<br>• Treated and admitted to hospital – presentations with modes of separation: admitted to a ward/inpatient unit (1), admitted and died in ED (3), admitted to a critical care ward (10), admitted via an operating theatre (11) or admitted – left at own risk (13)<br>• Left without, or before completing, treatment –presentations with modes of separation: departed, did not wait (6) and departed – left at their own risk (7). Patients who 'did not wait' were triaged, but left the ED before treatment commenced. Patients who 'left at their own risk' were triaged and treatment had begun by a clinician or nurse, but the patient left prior to completing their treatment.<br>• Transferred to another hospital – presentations with mode of separation: transferred to another hospital (5) or admitted and then transferred to another hospital (12)<br>• Other – presentations with modes of separation: dead on arrival (8) or departed for another clinical service location (9). Presentations with missing mode of separation are also included in this cohort. |
| **Triage category** | A classification system based on how urgent the patient's need is for treatment:<br><br>• Triage category 1: Resuscitation (for example, cardiac arrest)<br>• Triage category 2: Emergency (for example, chest pain, severe burns)<br>• Triage category 3: Urgent (for example, moderate blood loss, dehydration)<br>• Triage category 4: Semi-urgent (for example, sprained ankle, earache)<br>• Triage category 5: Non-urgent (for example, small cuts, abrasions). |

# Emergency department: Performance measures

## Time to starting treatment in the ED

| | |
|---|---|
| **Description of measure** | The time from first presenting at the ED to the time treatment started in a designated ED treatment area. |
| | Treatment time is the earlier of the following fields in the ED visit database of the HIE: |
| | • First seen by clinician time – the date and time when the patient is first seen by a medical officer and has a physical examination or treatment performed that is relevant to their presenting problem(s) |
| | • First seen by nurse time – the date and time when the patient is first seen by a nurse and has an assessment or treatment performed that is relevant to their presenting problem(s). |
| | If either 'first seen by clinician time' or 'first seen by nurse time' is more than 12 hours before presentation time or more than 31 days after presentation time, then that field is considered an error and is excluded from calculations. If both 'first seen by clinician time' and 'first seen by nurse time' are more than 12 hours before presentation time or more than 31 days after presentation time, then treatment time for that record is considered an error and excluded from calculations. If treatment time is earlier than presentation time, but 12 hours or less before presentation time, then time from presentation until treatment is set to zero. |
| | BHI does not report time from presentation to starting treatment for patients in triage category 1, because BHI considers waiting time for these patients to not be informative. Recording of presentation, triage and treatment times for patients who should be assessed or treated within two minutes (triage 1) is unlikely to be recorded precisely enough to report against a two-minute benchmark, particularly when clinicians are focused on providing immediate and essential care. |
| **Cohort description (numerator and denominator)** | Emergency presentations to NSW EDs |
| | Emergency presentations are records in the ED visit database of the HIE of presentations with an ED visit type of emergency (1), an unplanned return visit for a continuing condition (3) or disaster (11). |
| | Emergency presentations are reported by triage category. |
| **Further details (inclusions, exclusions)** | Inclusions: |
| | Patients who had a valid triage category and treatment time. |
| | Records with an ED visit type of Emergency (1), Unplanned return visit for a continuing condition (3) and Disaster (11) are included. |
| | Exclusions: |
| | Non-emergency presentations |
| | Records with a missing treatment time |
| | Records with missing or invalid information for triage category are excluded from reported counts of emergency presentations. |
| | Records with a mode of separation of Did not wait for treatment (6), Dead on Arrival (8) or Departed for other Clinical Service Location (9) |
| | If treatment time is more than 12 hours before presentation time or more than 31 days after presentation time, then that time from presentation until treatment is considered an error and set to missing. If treatment time is before presentation time by 12 hours or less, then time from presentation until treatment is set to zero. |
| **Data source** | Emergency Department Data Collection |

## Measures used in this report

| | |
|---|---|
| **Median time to starting treatment** | Time from presentation by which half of patients started their treatment. The other half of patients took equal to or longer than this time. |
| **90th percentile time to starting treatment** | Time from presentation by which 90% of patients started treatment. The final 10% of patients took equal to or longer than this time. |
| **Percentage of patients whose treatment started within clinically recommended time** | The number of presentations where the time from presentation to treatment was less than, or equal to, the clinically recommended time as a percentage of the total number of presentations. The percentage is reported for emergency patients with a triage category of 2 to 5. It is reported by triage category, and for these triage categories combined.<br><br>Denominator:<br><br>All emergency presentations to NSW public hospital EDs.<br><br>Numerator:<br><br>Denominator cases where the time between arrival at the ED and treatment time was within the clinically recommended timeframe for the relevant triage category.<br><br>A patient started treatment within the clinically recommended timeframe if the time from presentation to the start of clinical treatment is less than, or equal to, the maximum waiting times recommended in the Australasian College for Emergency Medicine policy on the Australasian Triage Scale. |

| AUSTRALASIAN TRIAGE SCALE CATEGORY | TREATMENT ACUITY (maximum waiting time for medical assessment and treatment) | PERFORMANCE INDICATOR THRESHOLD |
|---|---|---|
| Triage 1: Resuscitation | Immediate | 100% |
| Triage 2: Emergency | 10 minutes | 80% |
| Triage 3: Urgent | 30 minutes | 75% |
| Triage 4: Semi-urgent | 60 minutes | 70% |
| Triage 5: Non-urgent | 120 minutes | 70% |

## Time spent in the ED

| | |
|---|---|
| **Description of measure** | The difference between presentation time and departure time. |
| | Departure time is defined as: |
| | • Actual departure time –the date and time at which the patient physically leaves the ED as recorded in the actual departure time field in the emergency visit database in the HIE. If the time recorded for actual departure is before the presentation time or more than 31 days after the presentation time, then the actual departure time field is treated as missing and the record is excluded from calculations that use actual departure time. |
| | • Ready for departure time – the date and time when the assessment and initial treatment of the person is completed such that if home arrangements of the person (including transport) were available, the person could leave the ED. It is recorded in the ready for departure time field in the emergency visit database in the HIE. |
| | • If the time recorded for ready for departure is before presentation time or more than 31 days after presentation time, then that departure time field is considered an error and treated as missing. If the time recorded for ready for departure time is missing or is later than the time recorded for actual departure time, then actual departure time is used in calculations. If both ready for departure time and actual departure time are missing, the record is excluded from calculations that use ready for departure time. |
| **Cohort description (numerator and denominator)** | All ED presentations with a valid departure time. |
| | 'All presentations' is the count of every record in the ED visit database of the HIE. This count includes presentations of all ED visit types including emergency presentations, planned return visits, pre-arranged admissions, some outpatient visits, private referrals, persons pronounced dead on arrival and patients in transit. |
| | Records are assigned to quarters of the year using the arrival date and time field. |
| **Further details (exclusions)** | Exclusions: |
| | Records entered in error (mode of separation = 99), telehealth and eHealth presentations (ED visit type = 12), and presentations by patients who are already admitted to the same hospital (ED visit type = 13). |
| | If the time recorded for ready for departure time is missing, is before presentation time or more than 31 days after presentation time, or is later than the time recorded for actual departure time, then actual departure time is used in calculations. |
| | Records with missing time to departure are excluded from calculations that use time to departure. |
| **Data source** | Emergency Department Data Collection |

## Measures used in this report

| | |
|---|---|
| **Median time spent in the ED** | The time half the patients spent in the ED, calculated as the difference between presentation time and departure time. |
| | The other half of patients spent equal to or longer than this time. |
| **90th percentile time spent in the ED** | The time by which 90% of patients had left the ED. |
| | The remaining 10% spent equal to or longer than this time. |
| **Percentage of patients who spent four hours or less in the ED** | Denominator: |
| | All presentations to NSW public hospital EDs |
| | Numerator: |
| | Denominator cases where the time between arrival at and departure from the ED was equal to or less than four hours. |

## Transfer of care time

| | |
|---|---|
| **Description of measure** | The difference between arrival time and the time responsibility for the patients' care was transferred from paramedics to ED staff in an ED treatment zone |
| | For more information, see *Spotlight on Measurement: Measuring transfer of care from the ambulance to the emergency department* available at **bhi.nsw.gov.au** |
| **Cohort description (numerator and denominator)** | All patients arriving by ambulance at hospitals with an ED which is included in *Healthcare Quarterly* and with records in the Transfer of Care Reporting System (TCRS). |
| **Further details (exclusions)** | Inclusions: |
| | Matched records; those where the ambulance incident number and date can be identified in both the NSW Ambulance data and the ED data. |
| | Exclusions: |
| | Hospitals with less than 50 matched records in the quarter. Caution is advised when interpreting performance results for hospitals where transfer of care could not be calculated for more than 30% of total records because records were not matched or transfer of care time was missing. |
| **Data source** | Transfer of Care Reporting System (TCRS) portal. |
| | The TCRS incorporates data drawn from the NSW Ambulance information system and from the EDDC. |

## Measures used in this report

| | |
|---|---|
| **Median transfer of care time** | The time between arrival of patients at the ED by ambulance and transfer of responsibility for their care, for half of the patients, from paramedics to ED staff in an ED treatment zone. |
| | The other half took equal to or longer than this time. |
| **90th percentile transfer of care time** | The time between arrival of patients at the ED by ambulance and transfer of responsibility for their care for 90% of patients from paramedics to ED staff in an ED treatment zone. |
| | The final 10% of patients took equal to or longer than this time. |
| **Percentage of patients whose care was transferred within 30 minutes** | The percentage of patients who arrived by ambulance for whom responsibility for their care was transferred from paramedics to ED staff in an ED treatment zone within 30 minutes. The denominator for the percentage is the number of matched records with a valid transfer of care time. |

# Ambulance: Activity measures

For more information, see Spotlight on Measurement: Measuring and reporting performance of NSW ambulance services available at **bhi.nsw.gov.au**

## Number of calls

| | |
|---|---|
| **Description of measure** | Count of all calls requesting an ambulance vehicle, received by NSW Ambulance's Computer Aided Dispatch (CAD) system |
| **CAD data element description** | Count of records where 'Time_CallTakingComplete' is a valid date. |

## Number of incidents

| | |
|---|---|
| **Description of measure** | Count of all events requiring one or more ambulance responses. |
| | An incident is a call that results in the dispatch of one or more ambulance vehicles. |
| | Incidents are prioritised as highest priority (priority 1A) — immediate response under lights and sirens required (incident is potentially life threatening), priority 1 (emergency response under lights and sirens required); urgent (priority 2) — undelayed response required without lights and sirens; time-critical (priority 3) – medical responses requested by health professionals, often pre-booked; undelayed response and non-emergency (priority 4–9). |
| **Data element description** | Count of the number of calls where at least one response vehicle is assigned. |

## Number of responses

| | |
|---|---|
| **Description of measure** | Count of all dispatches of an ambulance service vehicle. |
| | A response is the dispatch of an ambulance vehicle. There may be multiple responses to a single incident. |
| | Responses are prioritised as per incidents. |
| | Responses include vehicles which are cancelled prior to arrival at the incident scene. |
| **CAD data element description** | When 'Time_Enroute' is a valid date |

## Number of patient transports

| | |
|---|---|
| **Description of measure** | Count of the number of responses where a patient was transported by the ambulance service. |
| **CAD data element description** | Responses where 'Time_ArrivedAt_Scene' is a valid date AND 'Time_Depart_Scene' is a valid date AND 'Time_ArrivedAtScene' is prior to 'Time_Depart_Scene' |

# Ambulance: Performance (timeliness) measures

## Call to ambulance arrival time

| | |
|---|---|
| **Description of measure** | Call to ambulance arrival time is measured from the time the call is answered (phone pickup) to the time the first ambulance service response arrives at the incident scene. |
| **Calculation** | Difference between 'Time_phonepickup' and 'Time_First_Unit_Arrived' |

## Measures used in this report

| | |
|---|---|
| **Percentage of priority 1 incidents with call to ambulance arrival time within 15 minutes** | Percentage of emergency (priority 1) response times where it takes less or equal to 15 minutes for the first ambulance service vehicle to arrive at the scene after the call is received. |
| **Calculation** | The number of emergency (priority 1) incidents responded to in under or equal to 15 minutes as a percentage of emergency (priority 1) incidents.<br><br>Results (%) are rounded to one decimal point for reporting. |
| **Inclusions** | Responses with a priority code of 1.<br><br>First ambulance service vehicle to arrive at the scene after the call answered.<br><br>All values 0 and higher are acceptable. |
| **Exclusions** | Community and volunteer response areas are included in NSW and zone totals but are not reported separately. |
| **Percentage of priority 1 incidents with call to ambulance arrival time within 30 minutes** | Percentage of emergency (priority 1) incidents where it takes less or equal to 30 minutes for the first ambulance service vehicle to arrive at the scene after the call is received. |
| **Calculation** | The number of emergency (priority 1) incidents responded to in under or equal to 30 minutes as a percentage of emergency (priority 1) incidents.<br><br>Results (%) are rounded to one decimal point for reporting. |
| **Inclusions** | Responses with a priority code of 1.<br><br>First ambulance service vehicle to arrive at the scene after the call answered.<br><br>All values 0 and higher are acceptable. |
| **Exclusions** | Community and volunteer response areas are included in NSW and zone totals but are not reported separately. |
| **Percentage of priority 2 incidents with call to ambulance arrival time within 30 minutes** | Percentage of urgent (priority 2) response times where it takes less or equal to 30 minutes for the first ambulance service vehicle to arrive at the scene after the call is received. |
| **Calculation** | The number of urgent (priority 2) incidents responded to in under or equal to 30 minutes as a percentage of urgent (priority 2) incidents.<br><br>Results (%) are rounded to one decimal point for reporting. |

| | |
|---|---|
| **Inclusions** | Responses with a priority code of 2. |
| | First ambulance service vehicle to arrive at the scene after the call answered. |
| | All values 0 and higher are acceptable. |
| **Exclusions** | Community and volunteer response areas are included in NSW and zone totals but are not reported separately. |
| **Percentage of priority 2 incidents with call to ambulance arrival time within 60 minutes** | Percentage of all State wide urgent (priority 2) response times where it takes less or equal to 60 minutes for the first ambulance service vehicle to arrive at the scene after the call is received. |
| **Calculation** | The number of urgent (priority 2) incidents responded to in under or equal to 60 minutes as a percentage of urgent (priority 2) incidents |
| | Results (%) are rounded to one decimal point for reporting. |
| **Inclusions** | Responses with a priority code of 2. |
| | First ambulance service vehicle to arrive at the scene after the call answered |
| | All values 0 and higher are acceptable. |
| **Exclusions** | Community and volunteer response areas are included in NSW and zone totals but are not reported separately. |

## Mobilisation time

| Description of measure | The time from when a call is placed in queue for an ambulance to the time the first vehicle is en route to the incident. |
|---|---|
| **NSW Ambulance Business rule** | WHEN:<br>'Time_CallEnteredQueue' IS NOT NULL<br>AND 'Time_Enroute' IS NOT NULL<br>AND 'Time_CallEnteredQueue' is a valid date<br>AND 'Time_Enroute' is a valid date<br>AND 'Time_CallEnteredQueue' is prior to 'Time_First_Unit_Enroute'<br>AND 'Time_First_Unit_Enroute' = a.'Time_Enroute'<br>THEN calculate time difference (in seconds) between 'Time_CallEnteredQueue' and 'Time_First_Unit_Enroute' |
| **Further details (inclusions, exclusions)** | Only the first unit en route is used in the calculation.<br>Community and volunteer response areas are included in NSW and zone totals but are not reported separately. |

## Measures used in this report

| Median mobilisation time | The total time from call placed in queue by which half of first vehicles were en route to priority 1 incidents. The other half took equal or longer than this time.<br>Median (50th percentile) mobilisation times are reported for priority 1 responses. |
|---|---|
| **90th percentile mobilisation time** | The time by which 90% of first vehicles were en route to priority 1 incidents. The final 10% took equal or longer than this time.<br>90th percentile response times are reported for priority 1 responses. |
| **Percentage of priority 1 responses mobilised within 3 minutes** | Percentage of emergency (priority 1) responses (requiring at least one immediate response under lights and sirens), where the time from when a call is placed in the queue for an ambulance to the time the first vehicle is en route to the incident responded to in under or equal to three minutes |

## Ambulance response time

| Description of measure | Ambulance response time is measured from the time a call is placed in queue (for an ambulance to be dispatched) to the time the first ambulance service response arrives at the incident scene. |
|---|---|
| **NSW Ambulance Business rule** | WHEN:<br>  'Time_CallEnteredQueue' is a valid date<br>  AND 'Time_ArrivedAtScene' is valid date<br>  AND 'Time_CallEnteredQueue' is a valid date<br>  AND 'Time_ArrivedAtScene' is a valid date<br>  AND 'Time_CallEnteredQueue' is prior to 'Time_ArrivedAtScene'<br>  AND 'Time_First_Unit_Arrived' = 'Time_ArrivedAtScene'<br>  THEN calculate time difference between 'Time_CallEnteredQueue' and 'Time_First_Unit_Arrived' |

## Measures used in this report

| Median (50th percentile) ambulance response time | The total time by which half of incidents were responded to by ambulance service vehicles. The other half took equal or longer than this time.<br>The median is a statistical measure of the midpoint of the response time distribution.<br>BHI uses the data for the first vehicle to arrive at the scene and the empirical distribution function with averaging to compute the median in SAS©9. |
|---|---|
| **Data element description** | Response time is the difference in minutes between when a call is placed in queue (for an ambulance to be dispatched) to the time the first ambulance service response arrives at the incident scene.<br>Results (minutes) are rounded to one decimal point for reporting. |
| **Inclusions** | Responses with a priority code of 1, 1A and 2.<br>First ambulance service vehicle to arrive at the scene after the call is placed in queue. |
| **Exclusions** | Community and volunteer response areas are included in NSW and zone totals but are not reported separately. |
| **90th percentile ambulance response time** | The time by which 90% of incidents were responded to by ambulance service vehicles. The final 10% took equal or longer than this time.<br>The 90th percentile is a statistical measure of response time distribution. BHI uses the first vehicle to arrive at the scene and the empirical distribution function with averaging to compute the 90th percentile in SAS©9. |
| **Data element description** | Response time is the difference in minutes between when a call is placed in queue (for an ambulance to be dispatched) to the time the first ambulance service response arrives at the incident scene.<br>Results (minutes) are rounded to one decimal point for reporting. |
| **Exclusions** | Community and volunteer response areas are included in NSW and zone totals but are not reported separately. |
| **Percentage of priority 1A responses within 10 minutes** | Percentage of emergency (priority 1A) incidents (requiring at least one immediate response under lights and sirens) responded to in under or equal to 10 minutes |
| **Calculation** | The percentage is calculated as the number of priority 1A responses where the time from when a call is placed in queue (for an ambulance to be dispatched) to the time the first ambulance service response arrives at the incident scene was less than, or equal to, 10 minutes as a percentage of the total number of priority 1A responses.<br>Results (%) are rounded to one decimal point for reporting. |

| Inclusions | Responses with a priority code of 1A. |
|---|---|
| | First ambulance service vehicle to arrive at the scene after the call is placed in queue. |
| | All values 0 and higher are acceptable. |

| Exclusions | Community and volunteer response areas are included in NSW and zone totals but are not reported separately. |
|---|---|

| Number of days the median priority 1A response time was within 10 minutes | In NSW there is a target of 10 minutes for the median time within which priority 1A responses should have occurred. |
|---|---|

| Inclusions | Responses with a priority code of 1A. |
|---|---|
| | First ambulance service vehicle to arrive at the scene after the call is placed in queue. |

## Turnaround Time

| Description of measure | The time from when an ambulance which is transporting a patient arrives at a hospital to when the ambulance is ready to respond to a new incident (minutes). |
|---|---|

| NSW Ambulance Business rule | WHEN: |
|---|---|
| |    'Destination_Name' is the name of a public hospital in NSW |
| |    AND 'Time_Arrive_Destination' is a valid date |
| |    AND 'Time_Call_Cleared' is a valid date |
| |    AND 'Time_Arrive_Destination' is before 'Time_Call_Cleared' |
| |    AND THEN calculate difference between 'Time_Arrive_Destination' and 'Time_Call_Cleared' |
| |    'Destination_City' is used whe the same 'Destination_Name' may refer to different destinations. |

| Inclusions | Responses with a priority code of 1 and 2. |
|---|---|
| | Destinations which are a public hospital in NSW |
| | All values 0 and higher are acceptable. |

| Exclusions | Community and volunteer response areas are included in NSW and zone totals but are not reported separately. |
|---|---|

### Measures used in this report

| Median turnaround time | The time by which half of ambulances transporting a patient take from arrival at a hospital to when the ambulance is ready to respond to a new incident. The other half took equal or longer than this time. |
|---|---|

| Inclusions | Responses with a priority code of 1 and 2. |
|---|---|
| | Destinations which are a public hospital in NSW |

| 90th percentile turnaround time | The time by which 90% of ambulances transporting a patient take from arrival at a hospital to when the ambulance is ready to respond to a new incident. The final 10% took equal or longer than this time. |
|---|---|

| Percent within 45 minutes | Percentage of priority 1 and 2 responses where the time from when an ambulance which is transporting a patient arrives at a hospital to when the ambulance is ready to respond to a new incident was less than, or equal to, 45 minutes as a percentage of the total number of priority 1 and 2 responses where an ambulance transporting a patient arrives at a hospital. |
|---|---|
| | Results (%) are rounded to one decimal point for reporting. |

# Admitted patients

| | |
|---|---|
| **Episode of care** | A period of care in a hospital or other healthcare facility with a defined start and end. |
| | When a person is admitted to hospital they begin what is termed an admitted patient episode or 'episode of care'. Acute episodes are typically short-term admissions for immediate care or treatment. Non-acute episodes include admissions for rehabilitation, palliative care and other non-acute reasons. Patients can have more than one episode of care during the same hospital admission. For example, a patient may begin with acute care and then change to rehabilitation or palliative care. |
| **Total episodes** | The count of all records with an episode end date in the defined period. |
| **Planned episodes** | The count of all recorded admissions with an emergency status of 'non-emergency / planned' or 'regular same-day planned admission'. |
| **Unplanned / other episodes** | All episodes with an episode end date in the defined period minus planned episodes. |
| **Babies born** | The count of records with source of referral of 'born in hospital'; it is a subset of unplanned episodes. Unlike all other fields in the admitted patient dataset, babies born uses the 'episode' table of the Health Information Exchange. |
| **Stay type** | Admitted patient episodes can be for 'same-day' or 'overnight' care. |
| | Same-day refers to patients who are admitted and discharged on the same day. Overnight refers to patients who spend at least one night in hospital. |
| | Admitted patient episodes can be either 'planned' or 'unplanned'. Planned refers to admissions that are arranged in advance (for example, patients who are admitted for planned elective surgery). Unplanned refers to emergency admissions (for example, for unplanned surgical patients). |
| **Acute episodes** | The count of records with episode of care type values of 1 (acute care) and 5 (newborn care). |
| **Acute same day episodes** | The count of acute episode records with an episode start date equal to the episode end date. |
| **Acute overnight episodes** | The count of the acute episode records with an episode start date that is earlier (not equal) to the episode end date. |
| **Bed days** | Bed days are calculated for all admitted patient episodes completed during the reference period. |
| | Total acute bed days is the sum of bed days for all episodes with an episode end date within the defined period. Total acute bed days for an overnight episode is the difference, in days, between the episode start date and the episode end date, minus the number of episode leave days recorded. Same-day episodes count as one bed day. |
| **Total acute bed days** | The sum of bed days for all acute episodes with an episode end date within the defined period. Total acute bed days for an overnight episode is the difference, in days, between the episode start date and the episode end date, minus the number of episode leave days recorded. Same day episodes count as one bed day. |
| **Average length of stay** | The mean of total bed days for all acute episodes with an episode end date in the defined period. That is, the total number of days in hospital for all admitted patient episodes (including same-day and overnight patients) divided by the total number of admitted patient episodes. The average length of stay is usually measured from midnight. |

# Elective surgery: Activity measures

| | |
|---|---|
| **The number of patients who received elective surgery during the quarter** | The count of patients who were removed from the waiting list during the quarter because they were a routine admission for surgery, an admission for their listed procedure as an emergency admission, or an admission for surgery contracted to a private hospital or private day procedure centre. |
| **The number of patients waiting for elective surgery at the end of the quarter** | The count of all patients who are on the waiting list at the end of the quarter. |
| **Ready for care** | Ready for care patients are those who are prepared to be admitted to hospital or to begin the process leading directly to admission. Patients ready for elective surgery and on the waiting list excludes those waiting for staged procedures. Patients ready for non-urgent surgery on the waiting list also excludes those waiting for non-urgent cystoscopy. |
| **Not ready for care** | Not ready for care patients are those who are not in a position to be admitted to hospital. Patients not ready for surgery on the waiting list includes those waiting for staged procedures, non-urgent cystoscopy, and patients currently not available for personal reasons. |
| **Urgency category** | A classification system based on how urgent the patient's need for surgery is: Urgent surgery: Admission within 30 days is desirable for a condition that has potential to deteriorate quickly and become an emergency. Semi-urgent surgery: Admission within 90 days is desirable for a condition unlikely to deteriorate quickly. Non-urgent surgery: Admission within 365 days acceptable for a condition unlikely to deteriorate quickly. |
| **Staged surgery** | Surgery that, for medical reasons, cannot take place before a certain amount of time has elapsed. BHI uses this term to define all patients that could be identified as being a staged patient for most of their time on the waiting list and all non-urgent cystoscopy patients. |
| **Common procedure** | Commonly performed elective surgery procedures. |
| **Specialty** | The area of clinical expertise held by the doctor who performed the surgery. Medical (specialty) refers to any surgery performed by a non-specialist medical practitioner. |

# Elective surgery: Performance measures

## Elective surgery waiting time

| | |
|---|---|
| **Description of measure** | The waiting period for a particular patient is defined as the time between the list date and the removal date. The time a patient waited for the initial appointment with a specialist is not included in the time a patient spent on the waiting list for elective surgery. |
| **Cohort description (numerator and denominator)** | All patients removed from the waiting list during the quarter because they were a routine admission for surgery, an admission for their listed procedure as an emergency admission, or an admission for surgery contracted to a private hospital or private day procedure centre. |
| **Further details (inclusions, exclusions)** | Exclusions:<br>Patients who were coded as not ready for surgery (NRFC) at the time of surgery.<br>Patients who were recorded as NRFC on the day they were entered onto the wait list and who were transferred to another urgency category within a day or two of removal date.<br>Patients who received cystoscopy and were in the non-urgent category.<br>The count for a hospital does not include admissions contracted to another public hospital. |
| **Data source** | Waiting List Collection On-line System (WLCOS). |

## Measures used in this report

| | |
|---|---|
| **Median waiting time in days** | The number of days it took for half of patients who received elective surgery during the period to be admitted and receive their surgery. The other half took equal to or longer than this time. Median waiting time is calculated using the Commonwealth waiting time definition. The number of days is calculated by subtracting the listing date for care from the removal date, minus any days when the patient was 'not ready for care', and also minus any days the patient was waiting with a less urgent clinical urgency category than their clinical urgency category at removal from the waiting list. BHI reports the median by urgency category, surgical specialty and common procedure. |
| **90th percentile waiting time in days** | The number of days it took for 90 percent of patients who received elective surgery during the period to be admitted and receive their surgery. BHI reports the 90th percentile by urgency category. The 90th percentile waiting time is also reported using the Commonwealth waiting time definition. |

## Percentage of patients admitted within the recommended timeframe

| | |
|---|---|
| **Description of measure** | The proportion of patients admitted within the clinically recommended timeframe for each of the elective surgery urgency categories. |
| **Cohort description (numerator and denominator)** | Denominator: Number of patients admitted to hospital for their elective surgery within the clinically recommended timeframe, i.e. in 30 days or less for category A patients, 90 days or less for category B patients and 365 days or less for category C patients.<br>Numerator: Total number of patients admitted for elective surgery in each urgency category |

# Index of ambulance local response areas by zone and local response area type

| Local response area | Zone | Local response area type |
|---|---|---|
| Albury | Murrumbidgee Zone | 24 hour LRA (with on call) |
| Armidale | New England Zone | 24 hour LRA (with on call) |
| Auburn | Western Sydney | 24 hour LRA |
| Avalon | Northern Sydney | 24 hour LRA |
| Balgowlah | Northern Sydney | 24 hour LRA |
| Ballina | Northern Rivers Zone | 24 hour LRA (with on call) |
| Bankstown | South West Zone 2 | 24 hour LRA |
| Barraba | New England Zone | non 24 hour LRA |
| Bateau Bay | Central Coast | 24 hour LRA |
| Batemans Bay | Southern NSW Zone | non 24 hour LRA |
| Bathurst | Central West Zone 1 | 24 hour LRA (with on call) |
| Bega | Southern NSW Zone | non 24 hour LRA |
| Belmont | Hunter Zone 1 | 24 hour LRA |
| Belrose | Northern Sydney | 24 hour LRA |
| Beresfield | Hunter Zone 2 | 24 hour LRA |
| Birmingham Gardens | Hunter Zone 1 | 24 hour LRA |
| Blacktown | Western Sydney | 24 hour LRA |
| Blayney | Central West Zone 1 | non 24 hour LRA |
| Bomaderry | Illawarra | 24 hour LRA (with on call) |
| Bondi | Sydney | 24 hour LRA |
| Boolaroo | Hunter Zone 1 | 24 hour LRA |
| Bourke | Central and Far West Zone 2 | non 24 hour LRA |
| Bowral | South West Zone 1 | 24 hour LRA (with on call) |
| Broken Hill | Central and Far West Zone 2 | 24 hour LRA (with on call) |
| Bulahdelah | Hunter Zone 2 | non 24 hour LRA |
| Bulli | Illawarra | 24 hour LRA |
| Camden | South West Zone 1 | 24 hour LRA |
| Campbelltown | South West Zone 2 | 24 hour LRA |
| Campsie | Sydney | 24 hour LRA |
| Canowindra | Central West Zone 1 | non 24 hour LRA |
| Cardiff | Hunter Zone 1 | 24 hour LRA |
| Caringbah | South Eastern Sydney | 24 hour LRA |
| Casino | Northern Rivers Zone | non 24 hour LRA |
| Castle Hill | Western Sydney | 24 hour LRA |
| Cessnock | Hunter Zone 2 | 24 hour LRA |
| Coffs Harbour | Mid North Coast Zone | 24 hour LRA (with on call) |
| Coleambally | Murrumbidgee Zone | non 24 hour LRA |
| Colyton | Nepean Blue Mountains | 24 hour LRA |
| Concord | Sydney | 24 hour LRA |
| Condobolin | Central West Zone 1 | non 24 hour LRA |
| Cooma | Southern NSW Zone | non 24 hour LRA |
| Coonabarabran | Central and Far West Zone 2 | non 24 hour LRA |
| Cootamundra | Southern NSW Zone | non 24 hour LRA |
| Corowa | Murrumbidgee Zone | non 24 hour LRA |
| Cowra | Central West Zone 1 | non 24 hour LRA |

| Local response area | Zone | Local response area type |
|---|---|---|
| Dapto | Illawarra | 24 hour LRA |
| Deniliquin | Murrumbidgee Zone | non 24 hour LRA |
| Doyalson | Central Coast | 24 hour LRA |
| Drummoyne | Sydney | 24 hour LRA |
| Dubbo | Central and Far West Zone 2 | 24 hour LRA (with on call) |
| Engadine | South Eastern Sydney | 24 hour LRA |
| Ettalong | Central Coast | 24 hour LRA |
| Evans Head | Northern Rivers Zone | non 24 hour LRA |
| Fairfield | South West Zone 2 | 24 hour LRA |
| Forbes | Central West Zone 1 | non 24 hour LRA |
| Gilgandra | Central and Far West Zone 2 | non 24 hour LRA |
| Glen Innes | New England Zone | non 24 hour LRA |
| Goulburn | Southern NSW Zone | 24 hour LRA (with on call) |
| Grafton | Northern Rivers Zone | 24 hour LRA (with on call) |
| Green Valley | South West Zone 1 | 24 hour LRA |
| Griffith | Murrumbidgee Zone | non 24 hour LRA |
| Gulgong | Central West Zone 1 | non 24 hour LRA |
| Hamilton | Hunter Zone 1 | 24 hour LRA |
| Hawkesbury River | Central Coast | 24 hour LRA |
| Hay | Murrumbidgee Zone | non 24 hour LRA |
| Helensburgh | Illawarra | non 24 hour LRA |
| Holbrook | Murrumbidgee Zone | non 24 hour LRA |
| Hurstville | South Eastern Sydney | 24 hour LRA |
| Huskisson | Illawarra | 24 hour LRA (with on call) |
| Inverell | New England Zone | non 24 hour LRA |
| Junee | Murrumbidgee Zone | non 24 hour LRA |
| Katoomba | Nepean Blue Mountains | 24 hour LRA |
| Kempsey | Mid North Coast Zone | 24 hour LRA (with on call) |
| Kiama | Illawarra | 24 hour LRA |
| Kingscliff | Northern Rivers Zone | non 24 hour LRA |
| Kogarah | South Eastern Sydney | 24 hour LRA |
| Kurri Kurri | Hunter Zone 2 | 24 hour LRA |
| Lane Cove | Northern Sydney | 24 hour LRA |
| Laurieton | Mid North Coast Zone | 24 hour LRA |
| Lismore | Northern Rivers Zone | 24 hour LRA (with on call) |
| Lithgow | Central West Zone 1 | 24 hour LRA (with on call) |
| Liverpool | South West Zone 1 | 24 hour LRA |
| Macksville | Mid North Coast Zone | 24 hour LRA (with on call) |
| Maclean | Northern Rivers Zone | 24 hour LRA |
| Macquarie Fields | South West Zone 2 | 24 hour LRA |
| Maroubra | South Eastern Sydney | 24 hour LRA |
| Marrickville | Sydney | 24 hour LRA |
| Mascot | South Eastern Sydney | 24 hour LRA |
| Menai | South Eastern Sydney | 24 hour LRA |
| Merimbula | Southern NSW Zone | non 24 hour LRA |
| Molong | Central West Zone 1 | non 24 hour LRA |
| Morisset | Central Coast | 24 hour LRA |
| Moruya | Southern NSW Zone | non 24 hour LRA |
| Mudgee | Central West Zone 1 | non 24 hour LRA |
| Mullumbimby | Northern Rivers Zone | non 24 hour LRA |
| Murwillumbah | Northern Rivers Zone | 24 hour LRA (with on call) |

| Local response area | Zone | Local response area type |
|---|---|---|
| Muswellbrook | Hunter Zone 2 | non 24 hour LRA |
| Nambucca Heads | Mid North Coast Zone | non 24 hour LRA |
| Naremburn | Northern Sydney | 24 hour LRA |
| Narooma | Southern NSW Zone | non 24 hour LRA |
| Narrabeen | Northern Sydney | 24 hour LRA |
| Nelson Bay | Hunter Zone 1 | 24 hour LRA |
| Oak Flats | Illawarra | 24 hour LRA |
| Oberon | Central West Zone 1 | non 24 hour LRA |
| Orange | Central West Zone 1 | 24 hour LRA (with on call) |
| Paddington | Sydney | 24 hour LRA |
| Parkes | Central West Zone 1 | non 24 hour LRA |
| Parramatta | Western Sydney | 24 hour LRA |
| Penrith | Nepean Blue Mountains | 24 hour LRA |
| Picton | South West Zone 1 | 24 hour LRA |
| Point Clare | Central Coast | 24 hour LRA |
| Port Macquarie | Mid North Coast Zone | 24 hour LRA (with on call) |
| Queanbeyan | Southern NSW Zone | 24 hour LRA (with on call) |
| Quirindi | New England Zone | non 24 hour LRA |
| Randwick | South Eastern Sydney | 24 hour LRA |
| Raymond Terrace | Hunter Zone 2 | 24 hour LRA |
| Richmond | Nepean Blue Mountains | 24 hour LRA |
| Riverstone | Western Sydney | 24 hour LRA |
| Rutherford | Hunter Zone 2 | 24 hour LRA |
| Ryde | Northern Sydney | 24 hour LRA |
| SAC | Sydney | 24 hour LRA |
| Singleton | Hunter Zone 2 | non 24 hour LRA |
| Springwood | Nepean Blue Mountains | 24 hour LRA |
| St Ives | Northern Sydney | 24 hour LRA |
| Stockton | Hunter Zone 1 | 24 hour LRA |
| Summer Hill | Sydney | 24 hour LRA |
| Tamworth | New England Zone | 24 hour LRA (with on call) |
| Tamworth South | New England Zone | 24 hour LRA (with on call) |
| Tanilba Bay | Hunter Zone 1 | 24 hour LRA |
| Taree | Mid North Coast Zone | 24 hour LRA (with on call) |
| Tenterfield | New England Zone | non 24 hour LRA |
| Terrigal | Central Coast | 24 hour LRA |
| Toronto | Hunter Zone 1 | 24 hour LRA |
| Toukley | Central Coast | 24 hour LRA |
| Tregear | Nepean Blue Mountains | 24 hour LRA |
| Tuncurry | Mid North Coast Zone | 24 hour LRA (with on call) |
| Tweed Heads | Northern Rivers Zone | 24 hour LRA (with on call) |
| Ulladulla | Illawarra | 24 hour LRA (with on call) |
| Urunga | Mid North Coast Zone | non 24 hour LRA |
| Wagga Wagga | Murrumbidgee Zone | 24 hour LRA (with on call) |
| Wahroonga | Northern Sydney | 24 hour LRA |
| Warrawong | Illawarra | 24 hour LRA |
| Wauchope | Mid North Coast Zone | non 24 hour LRA |
| Wellington | Central and Far West Zone 2 | non 24 hour LRA |
| Wollongong | Illawarra | 24 hour LRA |
| Woolgoolga | Mid North Coast Zone | non 24 hour LRA |
| Wyong | Central Coast | 24 hour LRA |

| Local response area | Zone | Local response area type |
|---|---|---|
| Yamba | Northern Rivers Zone | non 24 hour LRA |
| Yass | Southern NSW Zone | non 24 hour LRA |
| Young | Southern NSW Zone | non 24 hour LRA |

# Index of hospitals by local health district and hospital peer group

| Hospital | Local health district | Hospital peer group |
|---|---|---|
| Armidale Hospital | Hunter New England | C1 |
| Auburn Hospital | Western Sydney | B |
| Ballina District Hospital | Northern NSW | C2 |
| Bankstown-Lidcombe Hospital | South Western Sydney | A1 |
| Batemans Bay District Hospital | Southern NSW | C2 |
| Bathurst Health Service | Western NSW | C1 |
| Belmont Hospital | Hunter New England | C1 |
| Blacktown Hospital | Western Sydney | B |
| Blue Mountains District Anzac Memorial Hospital | Nepean Blue Mountains | C2 |
| Bowral and District Hospital | South Western Sydney | C1 |
| Broken Hill Health Service | Far West | C1 |
| Byron Central Hospital | Northern NSW | C2 |
| Calvary Mater Newcastle | Hunter New England | A3 |
| Campbelltown Hospital | South Western Sydney | B |
| Canterbury Hospital | Sydney | B |
| Casino & District Memorial Hospital | Northern NSW | C2 |
| Cessnock Hospital | Hunter New England | C2 |
| Coffs Harbour Health Campus | Mid North Coast | B |
| Concord Repatriation General Hospital | Sydney | A1 |
| Cooma Hospital and Health Service | Southern NSW | C2 |
| Cowra Health Service | Western NSW | C2 |
| Deniliquin Hospital and Health Services | Murrumbidgee | C2 |
| Dubbo Base Hospital | Western NSW | B |
| Fairfield Hospital | South Western Sydney | B |
| Gosford Hospital | Central Coast | A1 |
| Goulburn Base Hospital and Health Service | Southern NSW | C1 |
| Grafton Base Hospital | Northern NSW | C1 |
| Griffith Base Hospital | Murrumbidgee | C1 |
| Gunnedah Hospital | Hunter New England | C2 |
| Hawkesbury District Health Services | Nepean Blue Mountains | C1 |
| Hornsby Ku-ring-gai Hospital | Northern Sydney | B |
| Inverell Hospital | Hunter New England | C2 |
| John Hunter Hospital | Hunter New England | A1 |
| Kempsey District Hospital | Mid North Coast | C2 |
| Kurri Kurri Hospital | Hunter New England | C2 |
| Lachlan Health Service - Forbes | Western NSW | C2 |
| Lismore Base Hospital | Northern NSW | B |
| Lithgow Hospital | Nepean Blue Mountains | C2 |
| Liverpool Hospital | South Western Sydney | A1 |
| Macksville District Hospital | Mid North Coast | C2 |
| Maclean District Hospital | Northern NSW | C2 |
| Maitland Hospital | Hunter New England | B |
| Manly Hospital | Northern Sydney | B |
| Manning Hospital | Hunter New England | B |
| Milton Ulladulla Hospital | Illawarra Shoalhaven | C2 |

| Hospital | Local health district | Hospital peer group |
|---|---|---|
| Mona Vale Hospital | Northern Sydney | B |
| Moree Hospital | Hunter New England | C2 |
| Moruya District Hospital | Southern NSW | C2 |
| Mount Druitt Hospital | Western Sydney | C1 |
| Mudgee Health Service | Western NSW | C2 |
| Murwillumbah District Hospital | Northern NSW | C1 |
| Muswellbrook Hospital | Hunter New England | C2 |
| Narrabri Hospital | Hunter New England | C2 |
| Nepean Hospital | Nepean Blue Mountains | A1 |
| Northern Beaches Hospital | Northern Sydney | B |
| Orange Health Service | Western NSW | B |
| Port Macquarie Base Hospital | Mid North Coast | B |
| Prince of Wales Hospital | South Eastern Sydney | A1 |
| Queanbeyan Hospital and Health Service | Southern NSW | C2 |
| Royal North Shore Hospital | Northern Sydney | A1 |
| Royal Prince Alfred Hospital | Sydney | A1 |
| Ryde Hospital | Northern Sydney | C1 |
| Shellharbour Hospital | Illawarra Shoalhaven | C1 |
| Shoalhaven District Memorial Hospital | Illawarra Shoalhaven | B |
| Singleton Hospital | Hunter New England | C2 |
| South East Regional Hospital | Southern NSW | C1 |
| St George Hospital | South Eastern Sydney | A1 |
| St Vincent's Hospital Sydney | St Vincent's Health Network | A1 |
| Sutherland Hospital | South Eastern Sydney | B |
| Sydney Children's Hospital, Randwick | Sydney Children's Network | A2 |
| Sydney Hospital and Sydney Eye Hospital | South Eastern Sydney | A3 |
| Tamworth Hospital | Hunter New England | B |
| The Children's Hospital at Westmead | Sydney Children's Network | A2 |
| The Tweed Hospital | Northern NSW | B |
| Wagga Wagga Rural Referral Hospital | Murrumbidgee | B |
| Westmead Hospital | Western Sydney | A1 |
| Wollongong Hospital | Illawarra Shoalhaven | A1 |
| Wyong Hospital | Central Coast | B |
| Young Health Service | Murrumbidgee | C2 |

# References

1. Health System Information & Performance Reporting, NSW Ministry of Health, NSW Hospital peer groups 2016, 06 April 2016 [online] [cited 04 November 2016]. Available from http://www1.health.nsw.gov.au/PDS/pages/doc.aspx?dn=IB2016_013

2. NSW Government. NSW Health admission policy [online]. 2017 [cited 15 April 2018]. Available from http://www1.health.nsw.gov.au/pds/ActivePDSDocuments/PD2017_015.pdf