

Admitted Patients

Hospital Quarterly:

Performance of
NSW public hospitals

October to December 2013

Admitted patients are people who are accepted into hospital to receive care for reasons such as surgery, illness or childbirth. When a person is admitted into hospital they begin what is termed an 'episode of care'. This covers a single type of care such as acute care (typically a short-term admission for immediate care), rehabilitation or palliative care. Sometimes, a change in the medical needs of a person requires that they start a second or third episode during the same period of stay in hospital.

Although most episodes of care correspond to the length of time a patient spends in hospital,

sometimes a patient will stay in hospital over more than one episode. Examples include a patient who is transferred from acute care to rehabilitation, or a patient who is transferred from one hospital to another.

Information on the number, type and length of episodes allows healthcare professionals to better understand hospital needs. To enhance this information, the Bureau presents new analysis in this edition as outlined on [page 2](#).

In the October to December 2013 quarter there were 452,330 admitted patient episodes of care completed, 3% (12,574) more than the same quarter in the previous year.

Same day episodes have increased more than overnight episodes.

The average length of stay (ALOS) has not changed since the same period last year, but compared to five years ago has decreased for acute episodes including overnight acute episodes.

During the quarter	Oct-Dec 2012	Oct-Dec 2013	The difference
All admitted patient episodes	439,756 episodes	452,330 episodes	12,574 (3%)
All acute	423,618 episodes	435,382 episodes	11,764 (3%)
Overnight	231,291 episodes	235,348 episodes	4,057 (2%)
Sameday	192,327 episodes	200,034 episodes	7,707 (4%)
Newborn	18,202 episodes	17,824 episodes	-378 (-2%)
Average length of stay			
Acute	3.1	3.1	0.0 (0%)
Non-acute	15.3	15.3	0.0 (0%)

What's new in this module

In this issue of Hospital Quarterly, the Bureau has revised how it reports admitted patient data to provide a more comprehensive picture of NSW hospital utilisation and performance.

As in previous reports this edition includes information on the volume and average length of stay associated with admitted patient acute episodes that were completed within the reference period. The number of babies born is also reported.

New analyses presented in this edition include:

- The volume, average length of stay and bed days for non-acute episodes of patient care

- Trends in the ALOS and bed days
- A graphic representation of the variation in ALOS for acute overnight episodes of care for each hospital peer group
- Calculations of the percentages of same day and overnight episodes that are planned and unplanned

The Bureau is committed to providing clarity on health service performance and anticipates this new information will enable better assessment of admitted patient demand and service activity within NSW hospitals.

Which patients are included in this report

The group of patients reported in the admitted patient module includes individuals admitted to:

- Public hospitals
- Privately managed hospitals contracted to supply services for public patients
- Public multi-purpose services
- Public psychiatric hospitals

Excluded from this module are:

- Non-admitted patients, including community residential care and residential aged care covered by Commonwealth block funding
- Organ donors – posthumously admitted
- A hospital boarder who is not admitted, such as a relative of a patient
- When reporting episodes, bed days, patient episodes and length of stay, newborn babies who are 9 days or less at the time of admission and who only require newborn care and/or accommodation are excluded

How many patients are admitted to hospitals

Of the 452,330 episodes of care completed in the October to December 2013 quarter, 96% (435,382) were recorded as acute care.

The remaining 16,948 episodes were for patients admitted for non-acute care. Non-acute care includes rehabilitation, palliative care and “other” non-acute care.

The number of acute care episodes increased by 3% compared to the same quarter in the previous year. Non-acute episodes increased by 5%.

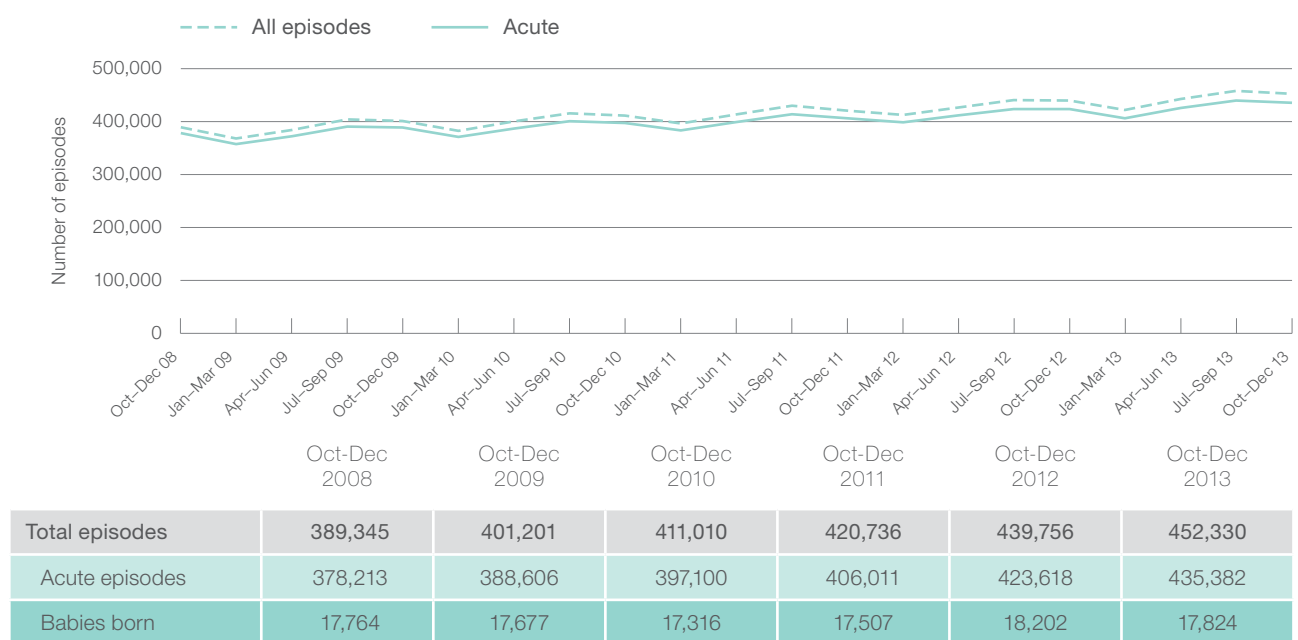
Looking over five years, although there are seasonal fluctuations in the number of patient episodes each year, there has been a gradual increase of episodes over time.

The number of babies born in the quarter was 17,824. This number has fluctuated over the five-year period, and is lower than the same quarter last year but similar to the same time five years ago.

Figure 1: Number of acute and non-acute episodes completed October to December 2013



Figure 2: Number of total and acute episodes completed October 2008 to December 2013



Note: Non-acute episodes involve patients hospitalised for rehabilitation, palliative care and ‘other’ non-acute reasons such as hostel accommodation, and geriatric evaluation and maintenance. Sometimes referred to as sub-acute care.
Source: NSW Health, Health Information Exchange, Admitted Patient Data Collection. Data extracted on 20 February 2014.

How many acute episodes are same day and overnight

Admitted patient episodes can be either 'planned' (arranged in advance) or 'unplanned/other' (which include emergency admissions or unplanned surgical patients). During the quarter, the number of acute care episodes that were planned was 186,535. This accounted for 43% of all acute episodes. The number of acute episodes that were unplanned was 248,847, accounting for 57% of all acute episodes.

When looking at types of stays, overnight patient episodes accounted for 54% (235,348) of stays. The number of same day episodes was 200,034, accounting for 46% of all acute episodes.

Figure 4 shows that the majority of same day episodes were planned. Conversely the majority of overnight episodes were unplanned.

Figure 5 shows that the number of same day and overnight episodes have increased over the five year period.

The number of same day episodes has increased at a greater rate (21%) than overnight episodes (11%) over the five year period.

Figure 4: All acute episodes by same day and overnight, by number and percentage planned and unplanned, October to December 2013

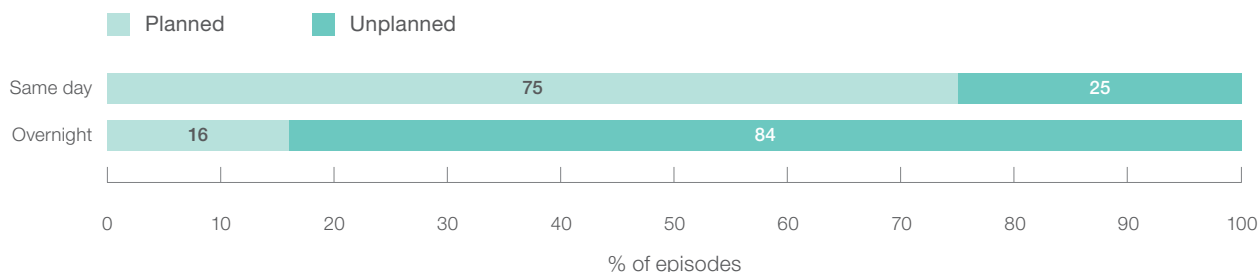
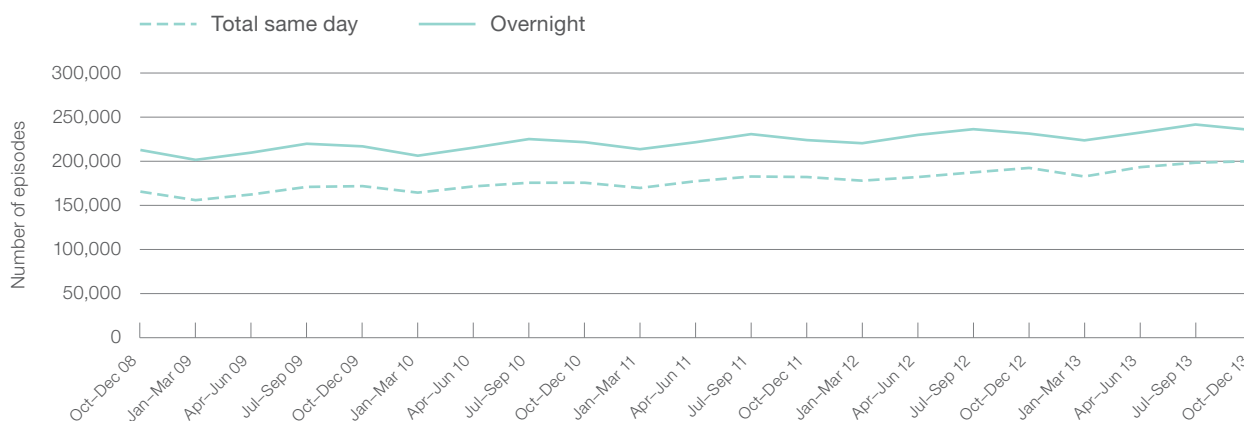


Figure 5: Total same day and overnight patient episodes completed each quarter October 2008 to December 2013



Source: NSW Health, Health Information Exchange, Admitted Patient Data Collection. Data extracted on 20 February 2014.

How long did people spend in hospital

The length of time a patient stays in hospital is a reflection of both the treatment needs of a patient and the efficiency and effectiveness of the treatment provided.

The average length of stay for a patient varies depending on whether the episode is for acute or non-acute care. This is because acute episodes tend to be for an immediate treatment or surgery that is usually completed in a short period of time. A non-acute episode usually involves treatment or care over a longer term. A typical non-acute episode might involve rehabilitation for a fracture such as a broken neck

of femur. Another example might be palliative care for patients with a terminal illness.

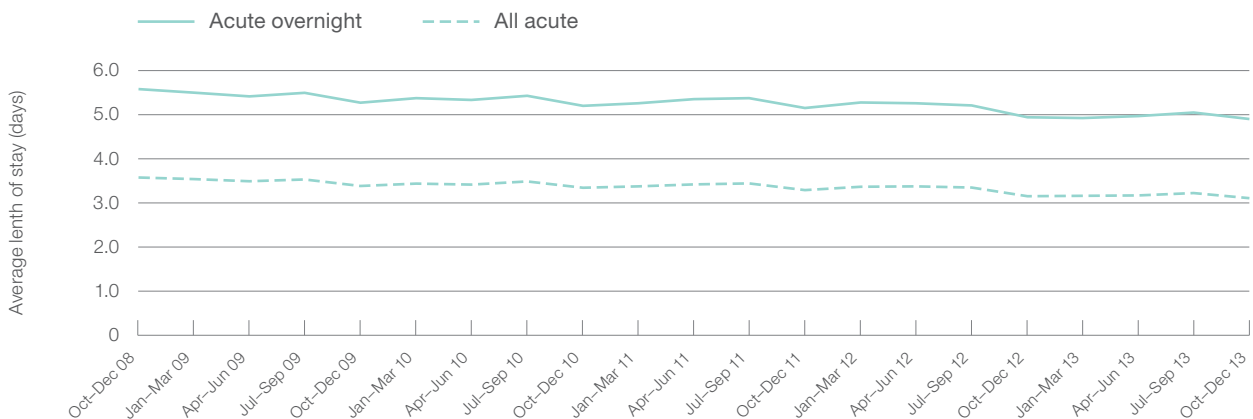
The average length of stay (ALOS) for all patient episodes completed during the quarter was 3.6. Over the five year period ALOS for all acute and overnight acute episodes have decreased by 0.5 days and 0.7 days respectively.

The average length of stay for an acute patient episode of care has decreased over the previous five years.

Figure 7: Average length of stay for acute, overnight acute and non-acute episodes completed, October to December 2013



Figure 8: Average length of stay for all acute and acute overnight episodes completed, January 2009 to December 2013



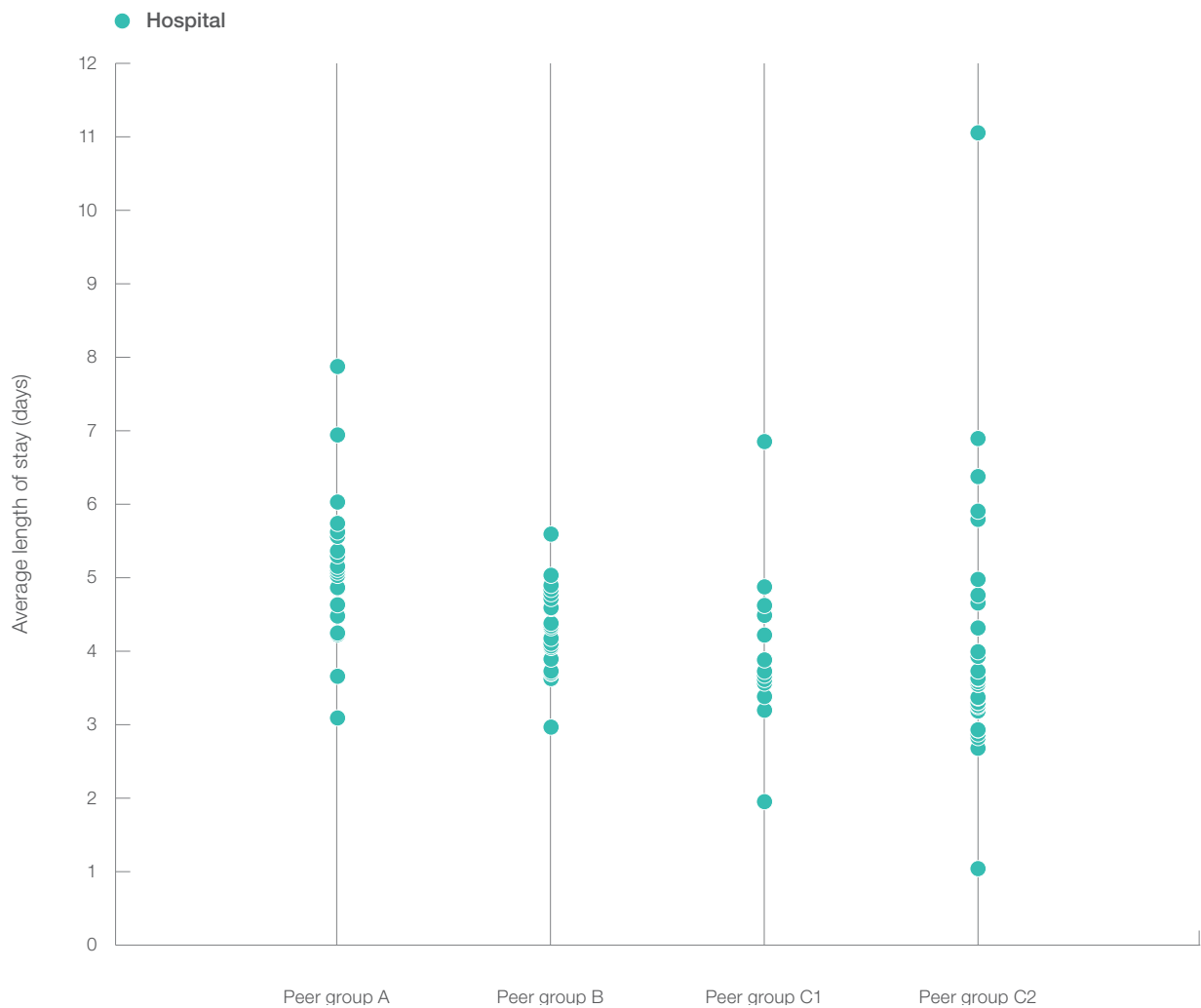
Source: NSW Health, Health Information Exchange, Admitted Patient Data Collection. Data extracted on 20 February 2014.

What is the variation in length of stay among hospitals

Figure 10 shows the variation in the ALOS related to acute overnight episodes of care for NSW hospitals within peer groups A, B, C1 and C2. Among peer group A (tertiary referral) hospitals the ALOS varies between 3.1 and 7.9 days. The ALOS among peer group B (major hospitals)

hospitals varies between 3.0 and 5.6 days. Peer group C1 hospitals show variations in their ALOS of between 1.9 and 6.8 days.

Figure 10: Average length of stay for all completed acute overnight episodes by peer group October 2011 to December 2013



Source: NSW Health, Health Information Exchange, Admitted Patient Data Collection. Data extracted on 20 February 2014.
 Note: ALOS is calculated by using the total bed days for all episodes with an end data in the quarter. The service mix varies between hospitals which in turn can influence the ALOS of a hospital

How many beds are utilised

Bed days¹ describe the number of days during which a person is confined to a bed in a hospital during a specified time period. This is an important measure of hospital utilisation, patient demand and service provision.

Among patient episodes completed during October to December 2013 there was a total of 1,612,087 hospital bed days, a 2% increase on the number in the same quarter in the previous year (1,580,604).

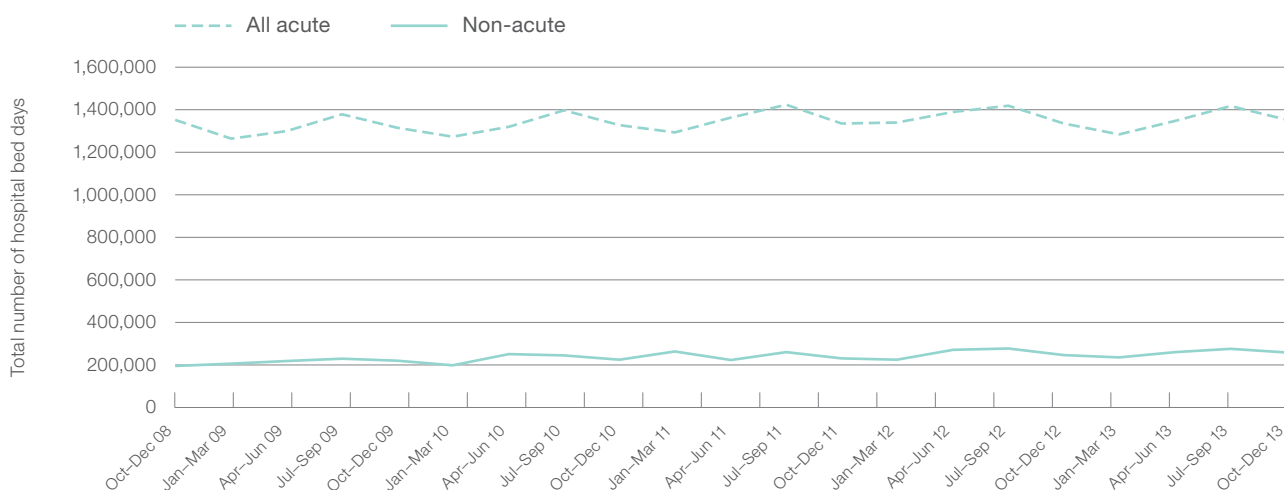
The number of acute bed days was 1,352,801, an increase of 1% from the same quarter in the previous year (1,334,389). The number of non-acute bed days was 259,286, an increase of 5% from the same quarter in the previous year (246,215).

Over the five year period the number of bed days for acute episodes fluctuates seasonally but has remained relatively unchanged. However the number of non-acute bed days has increased by 33% over this period.

Figure 11: Total number of hospital bed days for October to December 2013



Figure 12: Total number of bed days for each quarter, January 2009 to December 2013



1. Bed days are calculated for all episodes completed during the reference period

Source: NSW Health, Health Information Exchange, Admitted Patient Data Collection. Data extracted on 20 February 2014

Appendix table 1a: activity by hospital and local health district

Appendix table 1a presents the admitted patient episode activity for public hospitals in NSW. Data are presented by local health district for all principal referral, paediatric specialist, ungrouped acute – tertiary referral, major and district groups 1 and 2 hospitals. Information from smaller hospitals is presented for each local health district under the *'other'* category.

[Download Appendix 1](#) information by *'local health district'* in a PDF file

[Download Appendix 1](#) information by *'local health district'* in an Excel file

Appendix table 2a: activity by hospital and peer group

Appendix table 2a presents the admitted patient episode activity for public hospitals in NSW. Data are presented by peer group for all principal referral, paediatric specialist, ungrouped acute – tertiary referral, major and district groups 1 and 2 hospitals. Information from smaller hospitals is presented under the *'other'* category.

[Download Appendix 2](#) information by *'peer group'* in a PDF file

[Download Appendix 2](#) information by *'peer group'* in an Excel file

Download our reports

The report, *Hospital Quarterly: Performance of NSW public hospitals, October to December 2013* and related reports are available at www.bhi.nsw.gov.au

The suite of products includes:

- Three core modules titled *Admitted Patients*, *Elective Surgery* and *Emergency Departments*
- Appendix tables showing key results by peer group and LHD
- Activity and performance profiles about emergency department care and elective surgery for more than 80 hospitals and NSW as a whole



About the Bureau

The Bureau of Health Information provides the community, healthcare professionals and the NSW Parliament with timely, accurate and comparable information on the performance of the NSW public health system. The work of the Bureau helps to improve and enhance accountability in the NSW health system and assists in ensuring the system benefits the people of NSW.

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

To contact the Bureau

Telephone: +61 2 8644 2100

Fax: +61 2 8644 2119

Email: enquiries@bhi.nsw.gov.au

Postal address:

PO Box 1770

Chatswood

New South Wales 2057

Australia

Web: www.bhi.nsw.gov.au

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