Admitted patient palliative care and hospital-based facilities

This section presents information on episodes of admitted patient palliative care occurring in hospitals, using data on palliative care-related hospitalisations from the National Hospital Morbidity Database (NHMD). The NHMD is a collation of data about admitted patient care in Australian hospitals, based on the Admitted Patient Care National Minimum Data Set. For further information see the data sources section.

Information is presented on hospitalisations for which palliation was provided. Time series data for the period from 2010–11 to 2014–15 are presented to show the changes in hospitalisations for palliative care over this period. Wherever possible, corresponding data on all hospitalisations have been provided for comparative purposes.

Palliative care is provided in a range of health care settings, including neonatal units, general practices, acute hospitals and residential and community aged care services. This section also presents information on public acute and private hospital-based hospice care units.

Key points

- In 2014–15, there were about 65,000 palliative care-related hospitalisations reported from public and private hospitals in Australia.
- People aged 75 and over accounted for just over half (51.6%) of all palliative care-related hospitalisations.
- There was a 19.2% increase in palliative care-related hospitalisations between 2010–11 and 2014–15, compared to a 14.7% increase in hospitalisations for all reasons over the same period.
- In just under half (45.9%) of all hospitalisations in which the patient died, the patient had received palliative care.
- About half (50.6%) of palliative care hospitalisations involved cancer as the principal diagnosis.
- In 2014–15, a total of 123 public acute hospitals reported that they have a hospice care unit, with just over one-third (35.8%) located in New South Wales.
- Of the 678 public acute hospitals (excluding public psychiatric hospitals) in Australia, about 1 in 6 (18.1%) had a hospice care unit.

The information in this section was last updated in May 2017.

A palliative care-related hospitalisation is defined as an episode of admitted patient care for which the principal clinical intent was palliation during all or part of that episode. Two NHMD data items—Care type and Additional diagnosis—are used to capture information on palliative care: if either (or both) has a code of ‘palliative care’, that hospitalisation is included as being in scope (see Identifying palliative care hospitalisations for further information).
Admitted patient palliative care in 2014–15

In 2014–15, there were 64,939 palliative care-related hospitalisations reported from public and private hospitals in Australia, accounting for about 1 in 160 (0.6%) of all hospitalisations (10.2 million). A higher proportion of palliative care-related hospitalisations were for males (53.5%) than females (46.5%), and the rate was also higher for males than females (29.6 and 25.4 per 10,000 population, respectively) (Table APC.1).

People aged 75 and over accounted for over half (51.6%) of all palliative care-related hospitalisations; the average age of these patients was 72.7, with little difference between the sexes. This was considerably older than the average age of 54.7 years for hospitalisations for all reasons. Only about 1 in 10 (10.5%) of the total number of palliative care-related hospitalisations was for patients aged under 55.

Although there were more palliative care-related hospitalisations for males overall, among people aged 25–54 there were more hospitalisations for females than males. For people aged 85 and over, there were 15.5% more hospitalisations for females than males (Table APC.2).

Profile of palliative care-related hospitalisations in 2014–15

Where was palliative care provided?

In 2014–15, as with previous years findings, the majority of palliative care-related hospitalisations were recorded from public hospitals (84.9% or about 55,100 hospitalisations) rather than private hospitals. These data show that a disproportionate amount of palliative care was delivered in public hospitals, in which 58.9% of all hospitalisations occurred. For states and territories where private sector data were able to be published, the highest proportions of hospitalisations in public hospitals were in New South Wales (93.7%) and Victoria (89.3%) but in Western Australia, the majority of palliative care-related hospitalisations occurred in private hospitals (53.0%) (Table APC.3).

Tasmania reported the highest population rate at 36.9 palliative care-related hospitalisations per 10,000 population for public hospitals, followed by 31.9 per 10,000 for Victoria (Figure APC.1). Western Australia had the lowest population rate within public hospitals, at 7.0 palliative care-related hospitalisations per 10,000 population. In those states where private sector data were able to be published, Western Australia reported the highest rate (7.9 per 10,000 population) for palliative care-related private hospitalisations, about 5 times higher than the rate for New South Wales (1.6).
How long did patients stay?

In 2014–15, almost all (94.9%) palliative care-related hospitalisations involved an overnight hospital stay, compared with 40.4% for all hospitalisations (AIHW 2016a). Palliative care-related hospitalisations accounted for about 687,300 patient days, with an average length of stay (ALOS) of 10.6 days—about four times as long as the ALOS of 2.8 days for all hospitalisations. When only those hospitalisations that involved an overnight stay are considered, the difference narrows to 11.1 days for palliative care-related hospitalisations and 5.5 days for all hospitalisations (AIHW 2016a). The total ALOS per palliative care-related hospitalisation which included same day separations was 10.3 days for males and 10.9 days for females (Table APC.4).

The average length of stay was longer in private than public hospitals for all jurisdictions where private hospitals data can be reported. The greatest difference was in Queensland, with a 4.5 day longer average length of stay in private compared to public hospitals (Figure APC.2) in 2014–15. The ALOS in public hospitals for overnight hospitalisations was highest in the Australian Capital Territory (12.6 days). In private hospitals, South Australia recorded the highest overnight ALOS, at 15.1 days. Nationally, ALOS was higher in private (13.1 days) than public hospitals (10.8 days) for overnight hospitalisations.
Who paid for the care?

In 2014–15, public patient funding accounted for 75.8% of palliative care-related hospitalisations in public hospitals; private health insurance was the next most common funder (19.6%). By comparison, public patient funding for all hospitalisations in public hospitals was 82.8% and private health insurance 13.6%.

In private hospitals, private health insurance was the funding source for 68.1% of palliative care-related hospitalisations, compared with 82.9% of all hospitalisations. Public patient funding was more likely for palliative care-related hospitalisations in private hospitals (19.4%) than all hospitalisations (3.7%), and less likely to be funded by private health insurance (68.1% compared with 82.9%).

The funding pattern for public hospitals differed across jurisdictions: in NSW, 67.7% of palliative care-related hospitalisations were public patients compared with 90.0% in WA. Private hospitals also varied, with 48.8% of palliative care-related hospitalisations funded as public patients in WA compared with 0.6% in Victoria (Table APC.6).

How was the care completed?

The ‘mode of completing a hospitalisation’ indicates the status of a patient at the end of the hospitalisation; for example, whether the person died, or their destination after discharge from hospital.

More than half of all palliative care-related hospitalisations ended with the patient’s death (54.2%), compared with 0.8% for all hospitalisations. Patterns of completed palliative care-related hospitalisations were similar across both public and private hospitals. However, jurisdictional differences were evident within and across sectors. The proportion of palliative care-related hospitalisations in public hospitals ending with the patient’s...
death was lowest in the Northern Territory (41.6%) and highest in Western Australia (64.9%). For private hospitals where state or territory data were able to be published, Western Australia reported the highest percentage of hospitalisations ending with the patient’s death (66.4%), which was higher than the national average for the sector (56.5%). Private palliative care patients were more likely to be transferred to another hospital in New South Wales and Victoria compared with other jurisdictions reported (Table APC.7).

Characteristics of admitted palliative care patients

This section presents information on the number and proportion of palliative care-related hospitalisations for various demographic groups.

Socioeconomic status

Socioeconomic status generally refers to the level of economic and social resources of an individual (such as income, education and employment) and it is well established that it is associated with health outcomes (AIHW 2016b). The Index of Relative Socio Economic Disadvantage (IRSD) is used here to indicate socioeconomic status of the area in which the individual lives.

In 2014–15, people living in areas classified as having the lowest socioeconomic status (quintile 1) accounted for a higher proportion of palliative care-related hospitalisations (22.4%) in public hospitals than those living in other areas. The rate of palliative care-related public hospitalisations was also highest for those living in these areas (30.9 per 10,000 population). Conversely, the rate of public palliative care-related hospitalisations was lowest for those living in the highest socioeconomic status areas (14.5 per 10,000). These patterns are similar to those for all hospitalisations.

An opposite pattern occurred for palliative care-related hospitalisations in private hospitals, where the rate was highest for those living in the highest socioeconomic status areas (5.7 per 10,000 population). This pattern was also seen for all private hospitalisations for this socioeconomic group (2,390.2 per 10,000 population) (Table APC.10).

Indigenous status

Aboriginal and Torres Strait Islander people are disadvantaged relative to other Australians across a range of health-related and socioeconomic indicators (AIHW 2015). This may affect their use of, and access to, admitted patient palliative care.

A total of 1,308 palliative care-related hospitalisations for Indigenous Australians were reported in 2014–15, with the majority (97.2%) occurring in public hospitals. There were a similar number of hospitalisations for Indigenous males and females, whereas there were more hospitalisations for other Australian males than females. The rate of palliative care-related hospitalisations in public hospitals is about twice as high for Indigenous Australians as for other Australians (41.5 and 20.5 per 10,000 population, respectively) with the rate of all public hospitalisations more than 3.5 times for Indigenous Australians as for other Australians (Table APC.8).

Remoteness of patient’s usual residence

As would be expected, most palliative care-related hospitalisations in 2014–15 across both public and private hospital sectors were for patients whose usual residence was in Major cities (66.0%), with the proportion of palliative care-related hospitalisations decreasing as remoteness increased. However, the rate for Major cities public hospital hospitalisations of 21.7 per 10,000 population, was lower than the rate for Inner regional (28.5 per 10,000) and Outer regional areas (27.9 per 10,000).
Males accounted for a greater proportion of the palliative care-related hospitalisations than females in all remoteness categories for both public and private hospitals (Table APC.9).

References
AIHW 2015. The health and welfare of Australia’s Aboriginal and Torres Strait Islander peoples 2015. Cat. no. IHW 147. Canberra: AIHW.


AIHW 2016b. Australia’s health 2016. Australia’s health series no. 15. Cat. no. AUS 199. Canberra: AIHW.

Diagnosis

The principal diagnosis recorded for a hospitalisation is ‘the diagnosis established after study to be chiefly responsible for occasioning an episode of admitted patient care’ (AIHW 2012; NCCC 2012). Additional diagnoses are those ‘conditions or complaints either coexisting with the principal diagnosis or arising during the episode of admitted patient care’. One or more additional diagnoses can be assigned to the care episode (AIHW 2016a; NCCC 2012).

Half of palliative care-related hospitalisations recorded a principal diagnosis of cancer in 2014–15 (50.6%). Of these, a principal diagnosis of secondary site cancer (that is, a malignant tumour originating from a cancer elsewhere in the body) was assigned to about 1 in 4 (22.7%) hospitalisations.

Of the almost 995,000 cancer-related hospitalisations recorded in 2014–15, 32,881 (3.3%) were palliative care-related. Nearly one-third (29.6%) of all hospitalisations related to a principal diagnosis of pancreatic cancer were palliative care-related, followed by lung cancer (28.1%) and liver cancer (21.6%).

For diseases other than cancer, the next two principal diagnoses reported most often were stroke and heart failure (4.0% and 3.2% of palliative care-related hospitalisations, respectively). About 1 in 9 (11.0%) hospitalisations for ‘pneumonitis due to solids and liquids’ (including aspiration pneumonia) were palliative care-related (Table APC.11).

Change over time

From 2010–11 to 2014–15, palliative care-related hospitalisations increased by 19.2% from about 54,500 to almost 65,000. The number of all hospitalisations increased by 14.7% over the same period.

The rate of palliative care-related hospitalisations trended slightly upward from 24.6 to 27.5 per 10,000 population over the 5-year period to 2014–15.

Change over time by sector

The number of admitted patient palliative care-related hospitalisations between 2010–11 and 2014–15 increased in both public and private hospitals. The number of public palliative care-related hospitalisations increased by 20.6%, with public hospitalisations for all reasons increasing by 13.3% over the same period.
Numbers of palliative care-related hospitalisations in private hospitals also increased, resulting in a net increase of 12.1% over the same 5-year period. This is slightly lower than the increase in all private hospital hospitalisations, which showed 16.8% growth between 2010–11 and 2014–15.

For public hospitals, the rate of palliative care-related hospitalisations remained relatively steady since 2010–11, ranging between 20.6 and 23.3 palliative care-related hospitalisations per 10,000 population (Figure APC.3). The rate of palliative care hospitalisations in private hospitals remained essentially steady at about 4 per 10,000 population (Table APC.13).

Figure APC.3: Palliative care-related hospitalisations, public and private hospitals, 2010–11 to 2014–15

![Graph showing rates of palliative care-related hospitalisations](image)

Notes
1. Crude rates are based on the preliminary Australian estimated resident population as at 31 December of the reference year.
2. Data for this figure are shown in Table APC.13.

Source: National Hospital Morbidity Database.

### Change over time by jurisdiction

For those states and territories where data could be reported for all hospitals, there was an increase in the number of palliative care-related hospitalisations between 2010–11 and 2014–15 (4.5% average annual increase, 19.2% total increase). Queensland reported the highest average annual increase in all hospitals of 6.7%.

For public hospitals, the largest average annual increase in palliative care-related hospitalisations was for Western Australia (9.8% average annual increase), almost double the national average annual increase of 4.8%. There was a slight reduction in the number of public palliative care-related hospitalisations in the Northern Territory over the period (2.0% average annual decrease) (Table APC.14).

Among the states and territories where data could be reported for private hospitals, the number of palliative care-related hospitalisations varied over time and across jurisdictions over the period, with a 2.9% average annual increase (12.1% total increase) over the 5 years to 2014–15. Private hospitals in New South Wales and Western Australia reported average negative growth over the same period (4.8% and 3.3% average annual decrease, 17.9% and 12.6% total decrease respectively), while all other states and territories
reported an average annual increase in the number of palliative care-related hospitalisations ranging from 6.6% (29.4% total increase) in Victoria to 8.7% (39.7% total) in Queensland (Figure APC.4). For private hospitals, the national population rate of palliative care-related hospitalisations has been relatively steady between 2010–11 and 2014–15 (4 per 10,000 population) (Table APC.15).

**Figure APC.4: Private hospital palliative care-related hospitalisations, by state and territory, 2010–11 to 2014–15**

![Graph showing private hospital palliative care-related hospitalisations by state and territory from 2010–11 to 2014–15](image)

**Notes**
1. Data for private hospitals in Tasmania, the Australian Capital Territory and the Northern Territory are not shown for confidentiality reasons.
2. Data for this figure are shown in Table APC.14.

Source: National Hospital Morbidity Database.

### Change over time in length of stay

The number of patient days for palliative care-related hospitalisations in admitted patient settings increased by 5.2% between 2010–11 and 2014–15, to a total of almost 687,300 patient days. The ALOS for palliative care-related hospitalisations trended downwards over the 5 years to 2014–15 (Figure APC.5).
Figure APC.5: Palliative care-related hospitalisations, patient days and ALOS, public and private hospitals, 2010–11 to 2014–15

Notes
1. By definition, the ALOS for same-day hospitalisations equals 1 day.
2. Data for this figure are shown in Table APC.16.

Source: National Hospital Morbidity Database.

Palliative care and deaths in hospital

This section presents data on a subset of palliative care-related hospitalisations—those that ended with the patient’s death. Some admitted patients who died in hospital but were not identified as being ‘palliative care patients’ may also have received some palliation during the hospitalisation that ended with their death. However, as elsewhere in this chapter, the focus is on those hospitalisations for which palliation was a substantial component of the care provided.

Place of death

In 2014–15, about 155,600 people died in Australia (ABS 2016). According to data from the NHMD, almost 76,600 (49.2%) of these people died as an admitted patient in hospital.

Most states and territories have hospital-in-the-home (HITH) programs, under which patients are provided with hospital-type care, being categorised as an admitted patient, but in their home as a substitute for hospital accommodation (AIHW 2012). Admitted patients receiving HITH may have their final hospitalisation in their home; although it is also possible for HITH patients to return to hospital during their final hospitalisation. It should be noted that data quality issues may confound the HITH analysis presented here (see Table APC.17 for further information).

After excluding the small number of HITH patients reported, it is estimated that almost 76,400 people died in hospital in 2014–15 which is almost half (49.1%) of all deaths in Australia during that financial year. The proportion of deaths that occurred within the admitted patient setting ranged from 49.1% to 51.4% over the 5-year period from 2010–11 to 2014–15 (Table APC.17).
Palliative care patients and death

In 2010–11, 37.2% of admitted patients had been a palliative care patient during the hospitalisation that ended with their death (Figure APC.6). This proportion has steadily increased such that by 2014–15, 45.9% of people who died as an admitted patient had been a palliative care patient during their final hospitalisation (Table APC.20). Although it is difficult to be definitive about the reasons for this increase over time, the growth and ageing of Australia’s population, and an increase in chronic and generally incurable illnesses has broadened the type of patient groups requiring palliative care (AIHW 2010; Murtagh et al. 2013).

Figure APC.6: Palliative care patients among those who died as an admitted patient, all hospitals, 2010–11 to 2014–15

Notes
1. Refers to patients for whom palliative care was the principal clinical intent during part or all of the hospitalisation that ended with their death.
2. Data for this figure are shown in Table APC.20.

Source: National Hospital Morbidity Database.

The number of palliative care patients who died during hospitalisation varied by diagnosis. About half (51.6% or 18,148 patients) of all palliative care patients died with cancer as a principal diagnosis in 2014–15. Of these patients, around 1 in 6 had secondary site cancer (3,197; 17.6%) or lung cancer (3,130; 17.2%). Of the non-cancer diseases, 1 in 8 (2,064; 12.1%) patients who died as palliative care patients had a principal diagnosis of a stroke, and 1 in 13 (1,345; 7.9%) heart failure.

Over three-quarters of admitted patients (76.9%) with a principal diagnosis of cancer who died in 2014–15 were palliative care patients during their final hospital admission. Of the patients with a principal diagnosis of cancer who died during their final hospital admission, high percentages of patients with cancer of the breast (85.5%), brain (85.4%) and prostate (82.0%) received palliative care. Among admitted patients with a non-cancer diagnosis who died, high rates of palliative care occurred for renal failure (49.2%), paralytic ileus and intestinal obstruction without hemia (bowel obstruction) (44.8%) and stroke (42.8%) (Table APC.18).

References
Hospital-based facilities

Data relating to hospice care units across public hospitals are derived from the National Public Hospital Establishments Database (NPHED). Data for private hospitals, including facilities and specialised services for acute and psychiatric hospitals, are derived from the Private Health Establishments Collection, which is sourced from an annual survey collecting information relating to private hospital activities in Australia (ABS 2016). For further details on the NPHED database please see the data sources section.

Hospice units in public hospitals

A hospice care unit is a specialist unit delivering palliative care services and can include both free-standing facilities and wards within a hospital. However, hospices are identified differently in the NPHED across states and territories. Although palliative care services may be delivered in a range of settings, numbers of hospice care units are reported in this section due to their specialised role in palliative care delivery. In addition, the information derived from the NPHED does not include all hospice services in Australia; for example, private health-care providers/hospitals providing hospice care services are not in scope of the NPHED.

In 2014–15, a total of 123 public acute hospitals nationally reported having a hospice care unit. This represents 1 in 6 (18.1%) of the 678 public acute hospitals (excluding public psychiatric hospitals) in Australia. Just over one-third (35.8%) of hospitals with a hospice care unit were located in New South Wales (Figure APC.7). One-quarter (25.2%) of public acute hospitals in Major cities had a hospice care unit, 1 in 6 (17.5%) in Regional and 1 in 10 (10.5%) in Remote area hospitals.
How has the number of hospice units varied over time across states and territories?

The number of public acute hospitals with hospice care units fluctuated during the period 2010–11 to 2014–15. There was a 16 unit decrease in the number of public acute hospitals with hospice care units from 2010–11 to 2011–12 with New South Wales accounting for the majority of the decrease (11 units). The number increased again in 2012–13, to 129 units, and decreased to 124 and 123 units in 2013–14 and 2014–15 respectively (Table APC.22).

Private acute and psychiatric hospitals

There were 282 private acute and psychiatric hospitals nationally in 2014–15. Of these, 22 (7.8%) had hospice units recorded. The average total number of hospice unit beds available nationally was 201, with an estimated 58,948 patient days and an average length of stay of 9.4 days (ABS 2016) (Table APC.23).

Reference

### Key Concepts

#### Admitted patient palliative care and hospital-based facilities

<table>
<thead>
<tr>
<th>Key Concept</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Additional diagnosis</strong></td>
<td>Additional diagnosis refers to conditions or complaints either coexisting with the principal diagnosis or arising during the episode of care. Additional diagnoses are recorded in accordance with ICD-10-AM Australian Coding Standards.</td>
</tr>
<tr>
<td><strong>Admitted patients</strong></td>
<td>Admitted patients are patients who undergo a hospital’s formal admission process to receive treatment and/or care.</td>
</tr>
<tr>
<td><strong>Average length of stay</strong></td>
<td>The length of stay for an overnight patient is calculated by subtracting the date the patient is admitted from the date of hospitalisation and deducting any days the patient was ‘on leave’. Average length of stay refers to the average number of patient days for admitted patient episodes. Patients admitted and separated on the same day are allocated a length of stay of 1 day.</td>
</tr>
<tr>
<td><strong>Care type</strong></td>
<td>Care type refers to the overall nature of a clinical service provided to an admitted patient during an episode of care. Examples of care types are Acute care, Rehabilitation care, Palliative care and Geriatric evaluation and management.</td>
</tr>
<tr>
<td><strong>Funding source</strong></td>
<td>The principal source of funds for an admitted patient episode (hospitalisation).</td>
</tr>
<tr>
<td><strong>Hospice care unit</strong></td>
<td>A hospice care unit is a type of specialist unit delivering palliative care services and can include both free-standing hospices and/or palliative care wards within a hospital.</td>
</tr>
<tr>
<td><strong>Hospitalisation</strong></td>
<td>Hospitalisation (or separation) refers to the episode of admitted patient care, which can be a total hospital stay (from admission to discharge, transfer or death) or a portion of a hospital stay (beginning or ending in a change of type of care; for example, from Acute care to Rehabilitation).</td>
</tr>
</tbody>
</table>

#### Index of Relative Socio-Economic Disadvantage (IRSD)

- The IRSD is one of four Socio-Economic Indexes for Areas (SEIFA) developed by the ABS (ABS 2008). The IRSD represents the socioeconomic position of Australian communities by measuring aspects of disadvantage, such as low income, low educational attainment, high unemployment, and jobs in relatively unskilled occupations. Areas are then ranked according to their level of disadvantage.

- When the IRSD is used in this report, people living in the 20% of areas with the greatest overall level of disadvantage are described as living in the ‘lowest socioeconomic areas’. The 20% of people at the other end of the scale—those living in areas with the least overall level of disadvantage—are described as living in the ‘highest socioeconomic areas’.

- It is important to note that the IRSD reflects the overall or average socioeconomic position of the population of an area; it does not show how individuals living in the same area might differ from each other in their socioeconomic position. See Classifications for further information.

#### Palliative care-related

Palliative care-related hospitalisations are defined, for the purposes of this report,
<table>
<thead>
<tr>
<th>hospitalisations</th>
<th>as those hospitalisations for which palliative care was a substantial component of the care provided. Such hospitalisations were identified as those for which the principal clinical intent of the care was palliation during part or all of the hospitalisation, as evidenced by a code of Palliative care for the ‘Care type’ and/or an additional diagnosis.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient day</td>
<td>Patient day means the occupancy of a hospital bed (or chair in the case of some same day patients) by an admitted patient for all or part of a day.</td>
</tr>
<tr>
<td>Principal diagnosis</td>
<td>The principal diagnosis is the diagnosis established after study to be chiefly responsible for occasioning the patient’s episode of admitted patient care.</td>
</tr>
</tbody>
</table>