

Injuries occurring among admitted patients

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About

This report provides insight into injuries that occur during a period of hospitalisation, referred to as hospital-onset injuries. It examines hospital-onset injuries among admitted patients in Australian hospitals from 2015–16 to 2024–25. The report also explores the types and causes of injuries, as well as differences in patient outcomes between those who sustained injuries during their hospital stay and those who did not.

Cat. no: INJCAT 243

Key findings

- [Between 2015–16 and 2024–25, hospital-onset injuries were documented in one out of every 182 hospital separations](#)
 - [Half of hospital-onset injuries were caused by falls, which most often resulted in open wounds or superficial injuries](#)
 - [Hospital-onset injury rates increased with longer periods of hospitalisation](#)
 - [The presence of a hospital-onset injury was associated with an additional increase in length of stay](#)
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Summary

This report provides insight into injuries that occur during a period of hospitalisation – referred to as hospital-onset injuries. This report complements existing reporting on hospital-acquired complications required by the Australian Commission on Safety and Quality in Health Care – such as pressure injuries, medication complications, and neonatal birth trauma – which are already routinely monitored. See [Hospital-acquired complications - Hospitals](#) and 'Safety and quality of health systems' data tables available from [Admitted patient care - Hospitals](#).

The average annual rate of hospital-onset injury from 2015–16 to 2024–25 was 55 per 10,000 separations (1 in 182 separations). From 2015–16 to 2019–20, the hospital-onset injury rate fell from 64 to 50 per 10,000 separations and has remained stable up to 2024–25.



Hospital-onset injury rates varied according to health service and clinical characteristics, and population groups

The rate was highest for patient groups with longer hospitalisations, such as:

- those receiving sub-acute and non-acute care types (164 per 10,000 separations in 2024–25)
- patients who took leave days (389 per 10,000 in 2024–25).

The rate was lower for hospitals located in *Remote and very remote* areas – 34 and 32 per 10,000 separations in 2024–25, respectively.

The rate has been similar for First Nations and non-Indigenous Australians since 2017–18.

In 2024–25, the rate was 55 and 54 per 10,000 separations for Indigenous and non-Indigenous populations, respectively.



Falls were the most common cause of hospital-onset injury

Falls make up about half of all hospital-onset injuries each year. In 2024–25:

- 55% of fall-related injuries were open wounds or superficial injuries
- 9% were fractures and 3% intracranial injuries.

The likelihood of sustaining fractures or open wounds from falls increased with age.

Younger individuals more often experienced superficial injuries.



Admitted patients with hospital-onset injury had worse outcomes than those without

Patients with hospital-onset injuries had a median length of stay 11 days longer than those without hospital-onset injuries.

Patients with hospital-onset injuries were about 5 times as likely to require ICU admission and had higher rates of statistical discharge, acute hospital transfer, discharge to residential aged care, or in-hospital death than those without injury.

While hospital-onset injuries were associated with poorer outcomes, the findings highlight the importance of considering other risk factors – such as age and medical complexity – when assessing the impact of hospital-onset injuries on patient results. Patients who experience hospital-onset injuries may already have underlying risk factors that predispose them to poorer outcomes independent of the injury.

Introduction

This report provides a comprehensive analysis of injuries occurring among patients during an episode of admitted patient care in Australian hospitals, referred to as hospital-onset injuries. It describes:

- the frequency of hospital-onset injuries among admitted patients from 2015–16 to 2024–25
- variation in injury frequency across different population groups and health care service aspects
- the causes and types of injuries sustained
- patient outcomes for those who experienced an injury during an episode of admitted care and those who did not.

Hospital-onset injuries

Injuries arising during an episode of hospital admitted patient care are defined as separations meeting the following criteria:

- at least one ICD-10-AM code in the range S00–T98 *Injury, poisoning or certain other consequences of external causes* recorded as an additional diagnosis
- a condition flagged as onset during the episode of admitted patient care
- meeting denominator criteria (see [Technical notes](#))

Injuries due to *Complications of surgical and medical care* (T80–T88) and *Sequelae of injuries, of poisoning and of other consequences of external causes* (T90–T98) are not described in detail as these classifications are reported elsewhere (ACSQHC 2026, AIHW 2025a, AIHW 2025b).

References

ACSQHC (Australian Commission on Safety and Quality in Health Care) (2026), [Hospital-acquired complications, \(HACs\)](#), ACSQHC website, accessed 3 February 2026.

AIHW (Australian Institute of Health and Welfare) (2025a) [Admitted patient care 8: Safety and quality of health systems](#), AIHW website, accessed 3 February 2025

AIHW (2025b) [Hospital acquired complications](#), AIHW website, accessed 3 February 2025.

Frequency of hospital-onset injuries

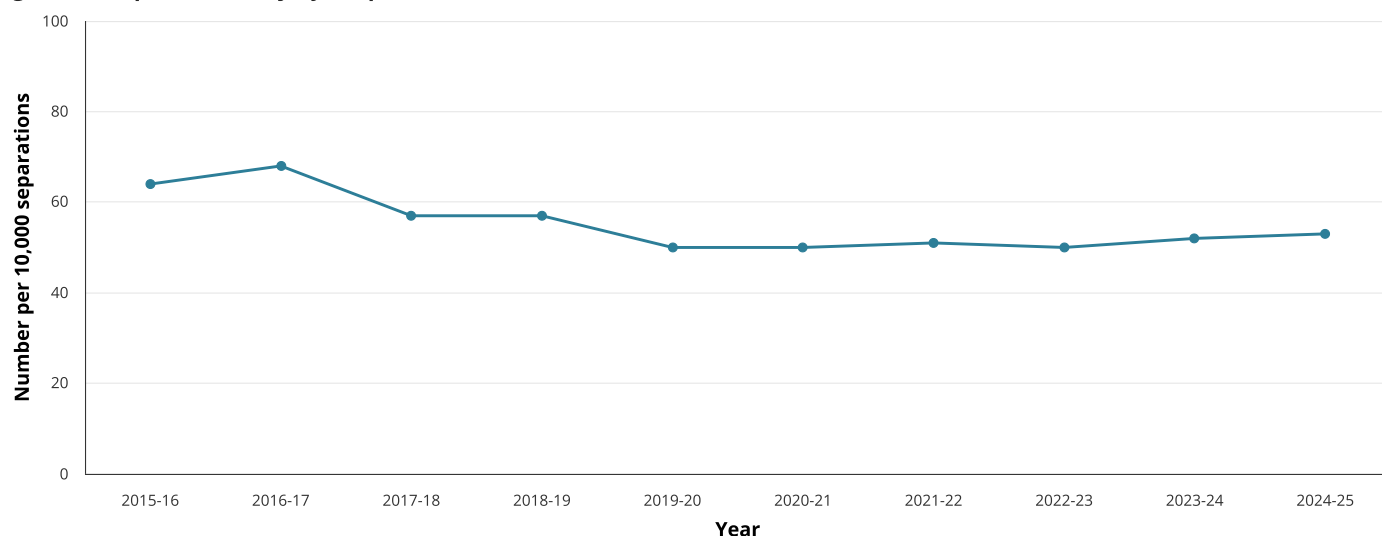
Of the 94.5 million hospital separations from 2015–16 to 2024–25, there was a total of 1,465,209 separations (1.6%) for *Injury, poisoning or certain other consequences of external causes* that occurred during a hospital stay.

Two thirds of these (945,814, 65%) were for *Complications of surgical and medical care* or *Sequelae of injuries, poisoning and of other consequences of external causes* only (that is, without any other hospital-onset injury diagnosis recorded) and are not described further in this report.

The remaining third consisted of 519,395 separations where at least one hospital-onset injury diagnosis was recorded:

- The overall hospital-onset injury rate was 55 episodes per 10,000 separations (1 in 182 separations) and 18 per 10,000 bed days (1 in 556 days) (Figure 1).
- From 2015–16 to 2019–20, the hospital-onset injury rate fell from 64 to 50 per 10,000 separations and has remained stable up to 2024–25.
- The median number of injuries per episode was 1.0.
- 20% of separations had more than one injury diagnosis reported.

Figure 1: Hospital-onset injury hospitalisations, 2015–16 to 2024–25



Downloadable data tables are available on [Data](#). See Table S1.

Source: AIHW analysis of the National Hospital Morbidity Database | [Data source overview](#)

Health service and clinical characteristics

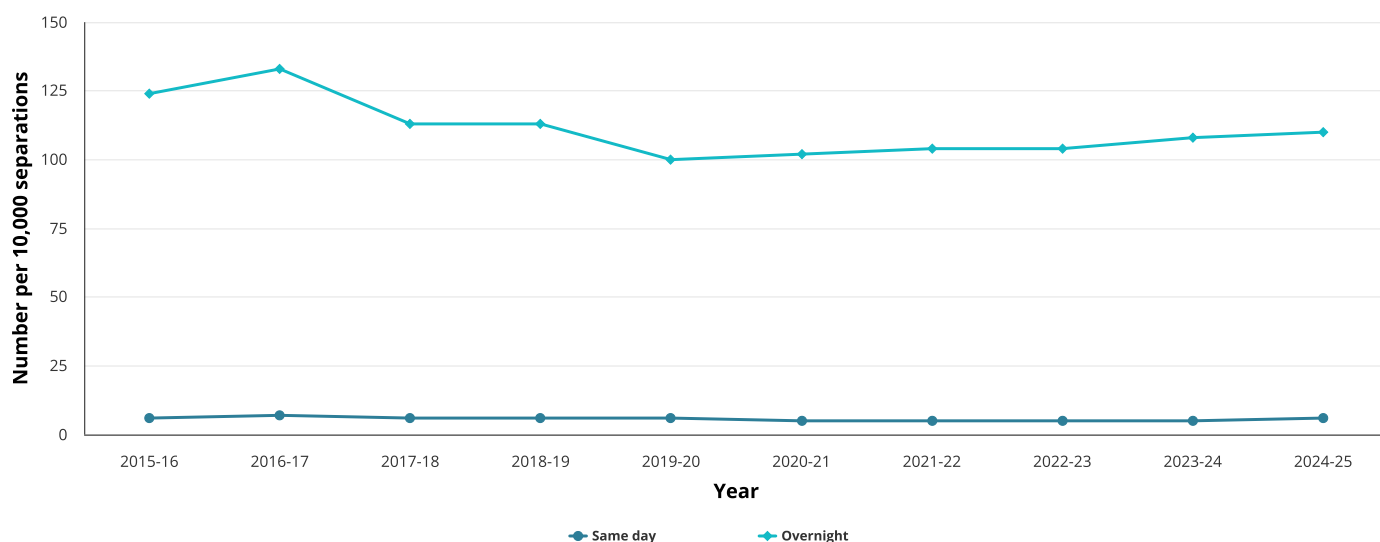
Health service characteristics

The rate of hospital-onset injuries (excluding complications and sequelae) varied with health service characteristics (Figure 2).

Higher hospital-onset injury rates observed in certain patient groups – such as those receiving non-acute and sub-acute care, and those who take leave days – are likely linked to their longer length of stay. Length of stay can increase the risk of injury and may itself be prolonged if a patient experiences an adverse event in hospital (see [Outcomes of hospital-onset injury](#)).

Figure 2: Hospital-onset injury rates by health service characteristics, 2015–16 to 2024–25

Select measure:



Downloadable data tables are available on [Data](#). See Tables S2-S10.

Source: AIHW analysis of the National Hospital Morbidity Database | [Data source overview](#)

Detailed trend information

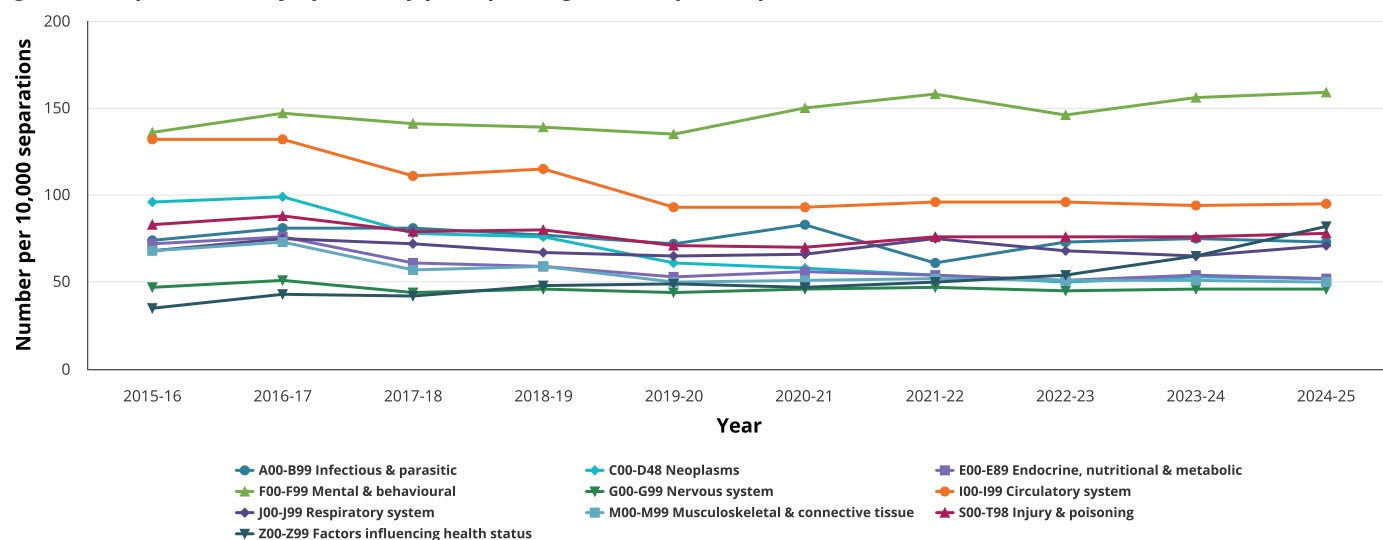
The hospital-onset injury rate was:

- Higher with increasing length of stay: in 2024–25 the hospital-onset injury rate increased from 19 per 10,000 separations for those admitted for less than 1 week to 1,797 per 10,000 separations for more than 12 weeks admission (excluding leave days).
- Up to twice as high for separations that included hospital in the home care: in 2024–25, the rate for episodes that involved hospital in the home care compared to those without was 103 and 52 per 10,000 separations, respectively.
- Up to 8 times as high for separations that involved leave days: in 2024–25, the injury rate was 389 per 10,000 separations with leave days and 52 per 10,000 separations without leave days. On average, hospital-onset injuries were recorded for 1 in 25 separations involving leave days, compared to 1 in 187 without leave between 2015–16 and 2024–25.
- Highest for public psychiatric hospitals: in 2024–25, the injury rate was 372 per 10,000 separations in psychiatric hospitals compared with 71 per 10,000 in other public hospitals and 26 per 10,000 for private hospitals. The hospital-onset injury rate was also higher than average for very small hospitals, at 127 per 10,000 separations in 2024–25.
- Higher for patients receiving non-acute and sub-acute care (164 per 10,000 separations in 2024–25) compared with acute care (42 per 10,000). The injury rate for several care types was above the national rate (53 per 10,000), including *Geriatric evaluation and management* care (485 per 10,000 separations in 2024–25), *Maintenance care* (422 per 10,000) *Psychogeriatric care* (351 per 10,000), *Palliative care* (152 per 10,000), *Mental health care* (142 per 10,000) and *Rehabilitation care* (99 per 10,000).
- Highest for hospitalisations funded by the *Department of Veterans Affairs*, and *Motor vehicle third party personal claim* (83 and 76 per 10,000 separations in 2024–25). The rate for *Department of Veterans Affairs* has fallen from 120 per 10,000 separations since 2015–16. The rate for hospitalisations funded through *Workers' compensation* was generally low (20 per 10,000 in 2024–25).
- Lowest for hospitals located in *Very remote* and *Remote* areas: in 2024–25, hospitals in *Very Remote* and *Remote* areas had rates of 32 and 34 per 10,000 separations, respectively. *Major cities*, *Inner regional*, and *Outer regional* areas were close to the national average of 53 per 10,000 separations. The rate has declined since 2015–16 for all areas, except for *Very remote* areas where the rate has fluctuated and increased from 21 to 32 per 10,000 separations over the 10-year period.

Principal diagnosis

The hospital-onset injury rate has remained stable between 2015–16 and 2024–25 for most principal diagnosis groups (Figure 3).

Figure 3: Hospital-onset injury rates by principal diagnosis chapter (top 10), 2015–16 to 2024–25



Downloadable data tables are available on [Data](#). See Table S11.

Source: AIHW analysis of the National Hospital Morbidity Database | [Data source overview](#)

The hospital-onset injury rate:

- Was highest in all years for *Mental and behavioural disorders*, and gradually increased from 136 to 159 per 10,000 separations between 2015–16 and 2024–25.
- Declined from 132 to 93 per 10,000 separations between 2015–16 and 2019–20 for *Circulatory diseases* and has remained stable through to 2024–25.
- Increased from 54 to 82 per 10,000 separations for *Factors influencing health status* between 2022–23 and 2024–25.

In 2024–25, hospital-onset injury rates for several principal diagnoses exceeded the national average (53 per 10,000 separations), such as *Mental and behavioural disorders* (159), *Circulatory diseases* (95), *Injury and poisoning* (78), *Infectious and parasitic* (73), *Respiratory diseases* (71), and *Factors influencing health status* (82).

Hospital-onset injury rates for separations classified under *Codes for special purposes* were also high – 128 per 10,000 separations for 2024–25. These codes largely include the emergency use codes related to COVID-19 and supplementary codes for chronic endocrine, nutritional and metabolic diseases.

Population groups

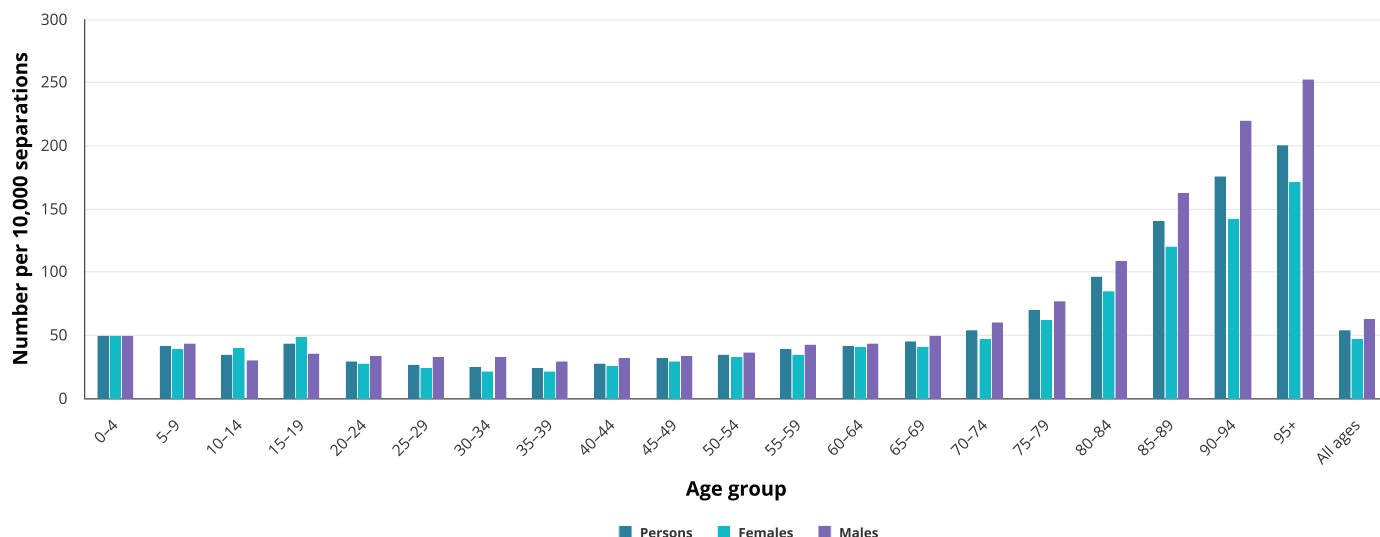
Age and sex

The hospital-onset injury rate was relatively flat in younger age groups, rising more steeply at older ages, and was higher for males compared with females, across most age groups (Figure 4).

In 2024–25, the rate was:

- 62 per 100,000 separations for males and 46 per 100,000 for females
- highest for persons aged 95 years and over (200 per 100,000 separations)
- lowest for persons aged 35–39 years (23 per 100,000 separations).

Figure 4: Hospital-onset injury rates by age and sex, 2024–25



Downloadable data tables are available on [Data](#). See Table S12.

Source: AIHW analysis of the National Hospital Morbidity Database | [Data source overview](#)

The hospital-onset injury rate decreased between 2015–16 to 2024–25 for all age groups, except for children aged below 10 years, where the rate almost doubled, and for adults aged 95 years and above which increased by 6%:

- 26 to 49 per 10,000 separations for 0–4-year-olds
- 19 to 41 per 10,000 separations for 5–9-year-olds
- 188 to 200 per 10,000 separations for 95 years and above.

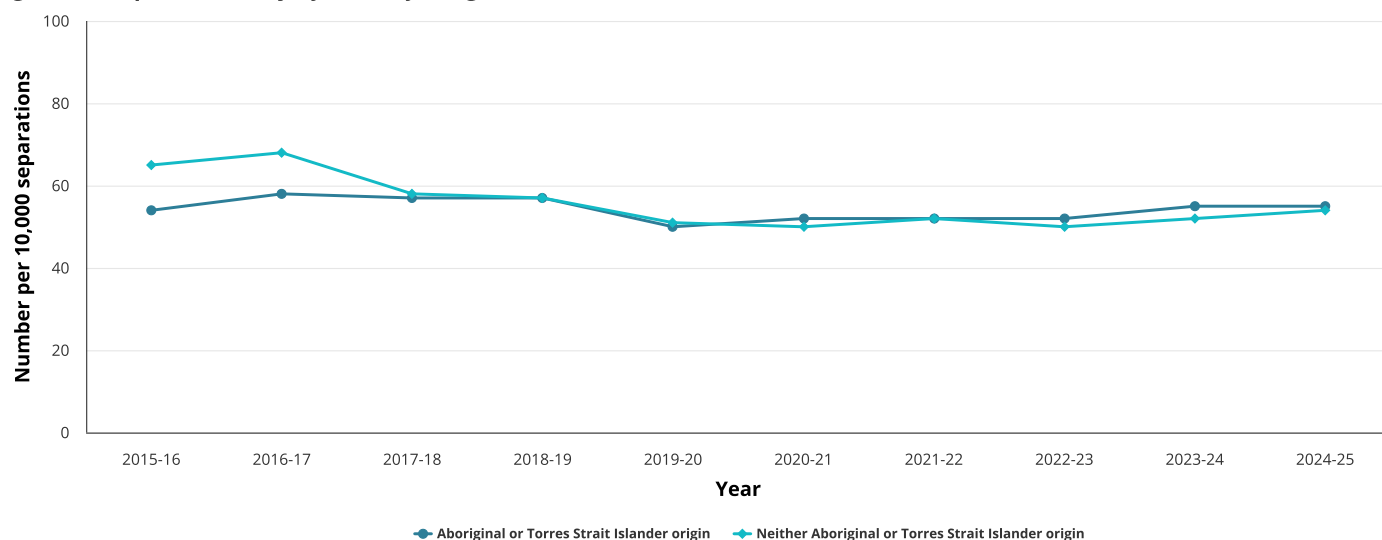
For more information see Table S12 in the downloadable tables available on [Data](#).

First Nations people

The rate of hospital-onset injuries for Aboriginal and Torres Strait Islander (First Nations) people and non-Indigenous Australians converged around 2017–18 and has remained similar since, fluctuating between 50 and 57 per 10,000 separations each year for both groups (Figure 5).

In 2024–25, there were 2,342 hospital-onset injury separations among First Nations people (55 per 10,000). Indigenous status was not assigned for 1.5% of hospital-onset injury separations.

Figure 5: Hospital-onset injury rates by Indigenous status, 2015–16 to 2024–25



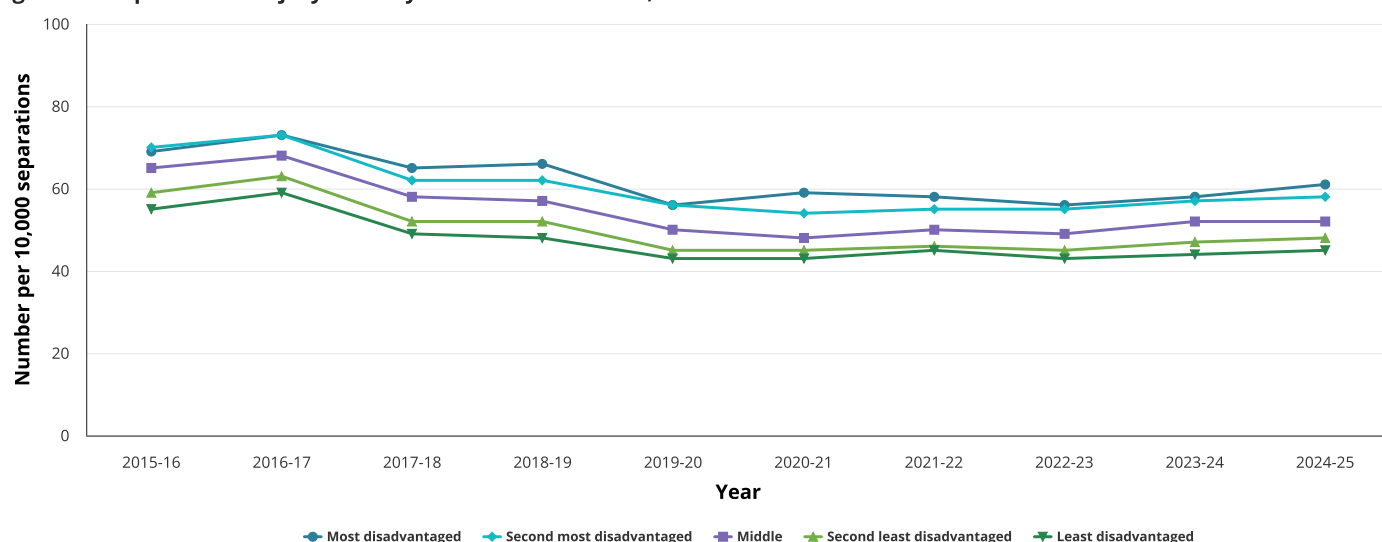
Downloadable data tables are available on [Data](#). See Table S13.

Source: AIHW analysis of the National Hospital Morbidity Database | [Data source overview](#)

Socio-economic area

Hospital-onset injury rates have declined since 2015–16 for each of the 5 levels of relative socio-economic disadvantage and remained relatively stable between 2019–20 and 2024–25 for each level (Figure 6). However, rates increased with increasing levels of disadvantage – in 2024–25 the hospital-onset injury rate for residents of the least disadvantaged areas was 45 per 100,000 separations and 61 for the most disadvantaged areas.

Figure 6: Hospital-onset injury rates by socio-economic area, 2015–16 to 2024–25



Downloadable data tables are available on [Data](#). See Table S14.

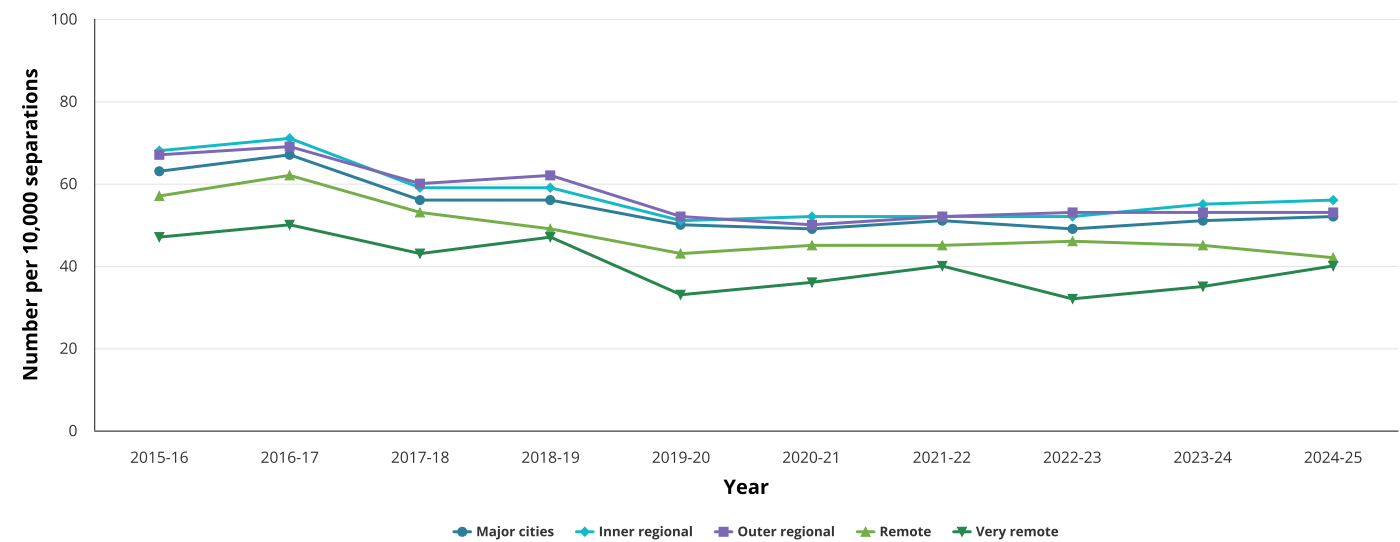
Source: AIHW analysis of the National Hospital Morbidity Database | [Data source overview](#)

Remoteness area

Hospital-onset injury rates generally declined with increasing remoteness area of usual residence (Figure 7). The rates were:

- Lowest for residents of *Remote* and *Very remote* areas – 42 and 40 per 10,000 separations in 2024–25, respectively.
- Highest for *Major cities* and *Inner regional* areas – 52 and 56 per 10,000 separations in 2024–25, respectively.

Figure 7: Hospital-onset injury rates by remoteness area, 2015–16 to 2024–25



Downloadable data tables are available on [Data](#). See Table S15.
Source: AIHW analysis of the National Hospital Morbidity Database | [Data source overview](#)

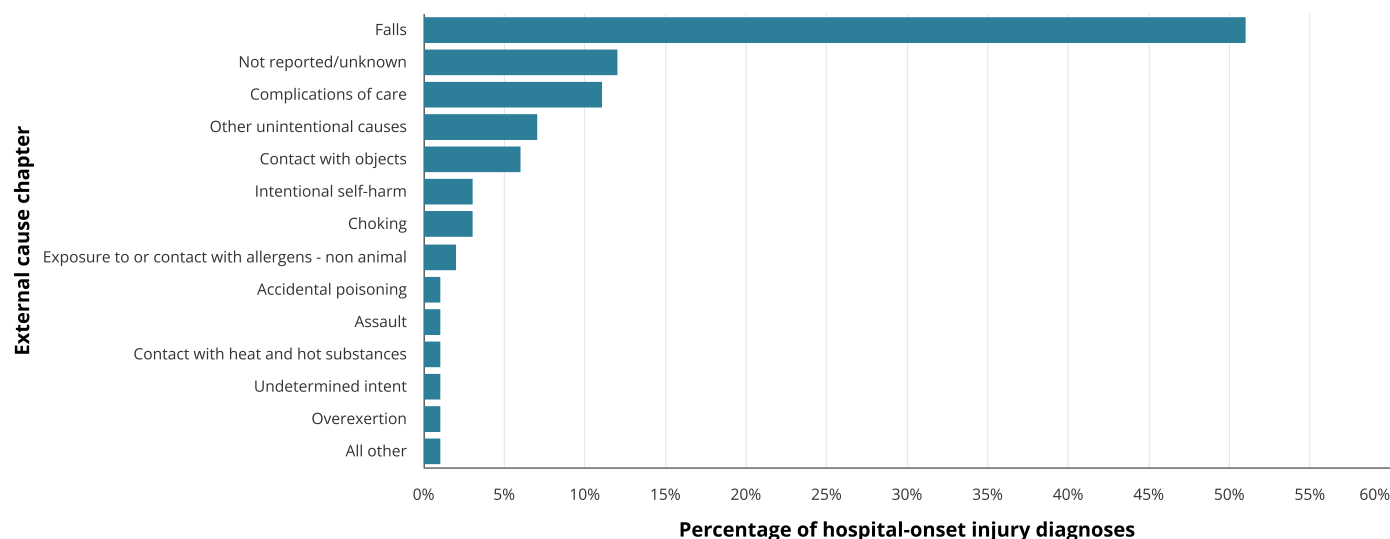
Causes of hospital-onset injuries and injury types

Causes of injury

Falls during an admitted episode of care were the most common cause of hospital-onset injury. In 2024–25, falls accounted for 51% of all hospital-onset injuries (Figure 8). This proportion was similar for each year.

The external cause group *Complications of surgical and medical care* (Y40–Y84), which includes events like medication errors and surgical mishaps, were responsible for 11% of hospital-onset injuries that were assigned an injury type outside of the diagnosis group *Complications of surgical and medical care* (T80–T88). While T80–T88 specifically covers complications of care such as device-related issues or adverse effects of infusions, some adverse events – like unintentional rib fractures during CPR – may be recorded outside this range.

Figure 8: Hospital-onset injuries by external cause, 2024–25



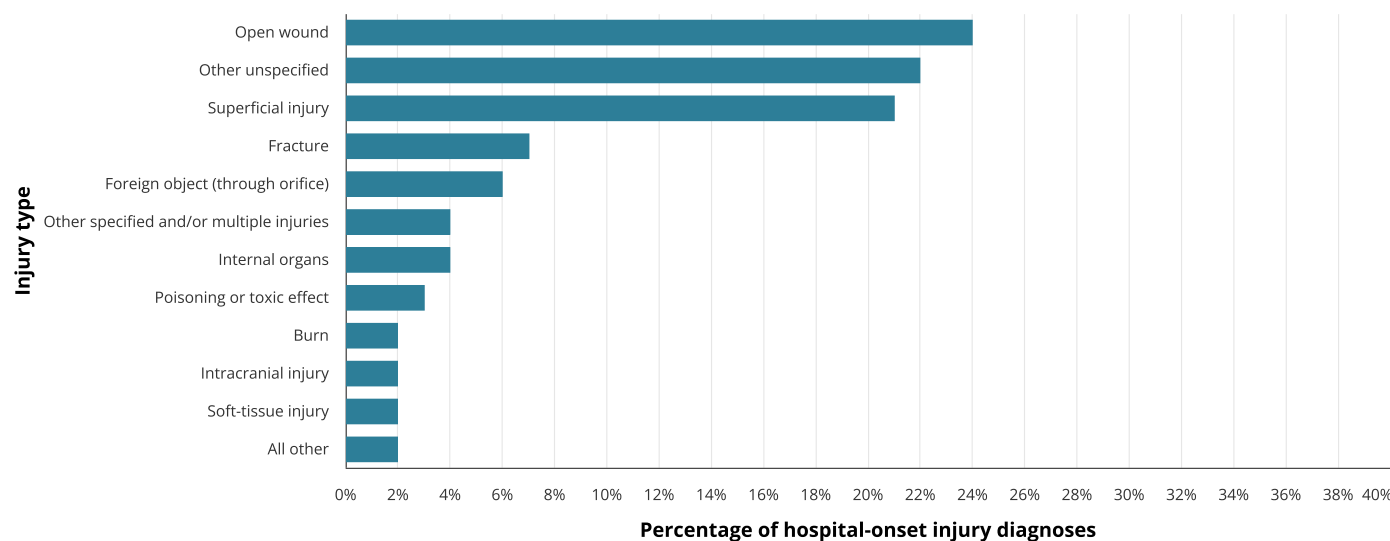
Downloadable data tables are available on [Data](#). See Table S16.

Source: AIHW analysis of the National Hospital Morbidity Database | [Data source overview](#)

Types of injury

Open wounds were the most common injuries that occurred during a period of hospitalisation for each year (mostly due to falls). In 2024–25, open wounds accounted for 24% of hospital-onset injuries, followed by other unspecified injuries (22%) and superficial injuries (21%) (Figure 9).

Figure 9: Hospital-onset injuries by injury type, 2024–25



Downloadable data tables are available on [Data](#). See Table S17.

Source: AIHW analysis of the National Hospital Morbidity Database | [Data source overview](#)

Injuries arising from falls

The most common types of falls over the last 5 years were those that occurred on the same level (58%), such as slipping, tripping and stumbling (Table 1).

Table 1: Most common causes of hospital-onset injuries for falls, 2020–21 to 2024–25

Cause	Number of injuries	Per cent of injuries
Fall on same level from slipping, tripping, and stumbling	41,013	24.3
Other fall on same level	56,871	33.6
Unspecified fall	39,922	23.6
Fall involving bed	20,363	12.0
Fall involving chair	6,435	3.8
Fall involving wheelchair	1,770	1.0

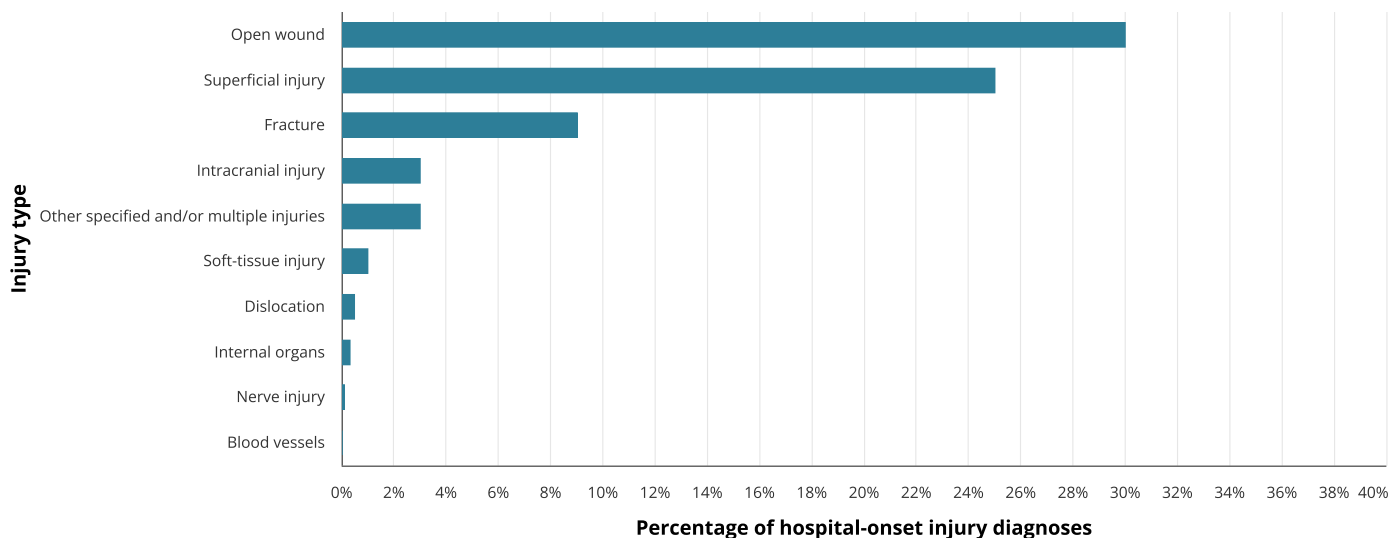
Notes:

1. Data show the percentage of hospital-onset fall injuries from 2020–21 to 2024–25 combined.
2. Hospital-onset injuries exclude diagnosis codes T80-T88 *Complications of surgical and medical care* and T90-T98 *Sequelae of injuries, of poisoning and of other external causes*.
3. Analysis excludes care types 7.3, 9, 10, and separations for same day chemotherapy or haemodialysis.
4. Downloadable data tables are available on [Data](#). See Table S18.

Source: AIHW analysis of the National Hospital Morbidity Database

In 2024–25, open wounds (30%) and superficial injuries (24%) were the most common injuries sustained from falls (Figure 10). However, 28% of injuries from falls were not specified.

Figure 10: Ten most common injury types associated with falls, 2024–25



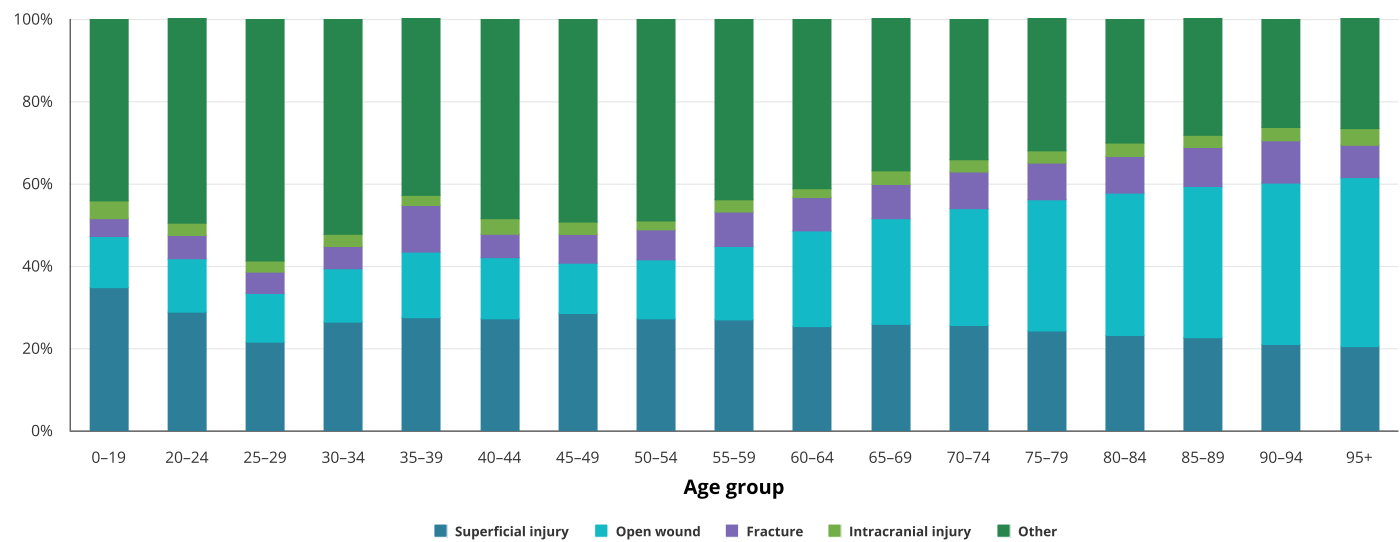
Downloadable data tables are available on [Data](#). See Table S19.

Source: AIHW analysis of the National Hospital Morbidity Database | [Data source overview](#)

In 2024–25, fractures and open wounds resulting from falls increased with age while superficial injuries decreased with age. While intracranial injuries were low across all age groups, they represent serious injuries (Figure 11). In summary:

- 8% of people aged 95 and over sustained a fracture from a fall compared to 4% of people aged 0–19 years.
- 41% of people aged 95 and over sustained an open wound from a fall compared to 12% of people aged 0–19 years.
- 35% of people aged 0–19 sustained a superficial injury from a fall compared to 20% of people aged 95 and above.

Figure 11: Age distribution of fractures, intracranial injuries, open wounds, and superficial injuries from falls, 2024–25



Downloadable data tables are available on [Data](#). See Table S20.
Source: AIHW analysis of the National Hospital Morbidity Database | [Data source overview](#)

Injuries arising from complications of care

Complications of care were the second most common cause of hospital-onset injury, after falls. Within this group, more than half were 'abnormal reactions or later complications arising from surgical procedures without mention of unintentional events at the time of the procedure' (excluding injury diagnoses in the range T80-T88) (Table 2).

Table 2: Most common causes of hospital-onset injuries for complications of care, 2020–21 to 2024–25

Cause	Number of injuries	Per cent of injuries
Surgical operation and other surgical procedures as the cause of abnormal reaction, or later complication, without mention of unintentional events at the time of the procedure	19,384	53.0
Unintentional events during surgical and medical care	13,706	36.6
Drugs, medicaments and biological substances causing adverse effects in therapeutic use	2,360	6.3
Medical devices associated with unintentional events in diagnostic and therapeutic use	1,520	4.1

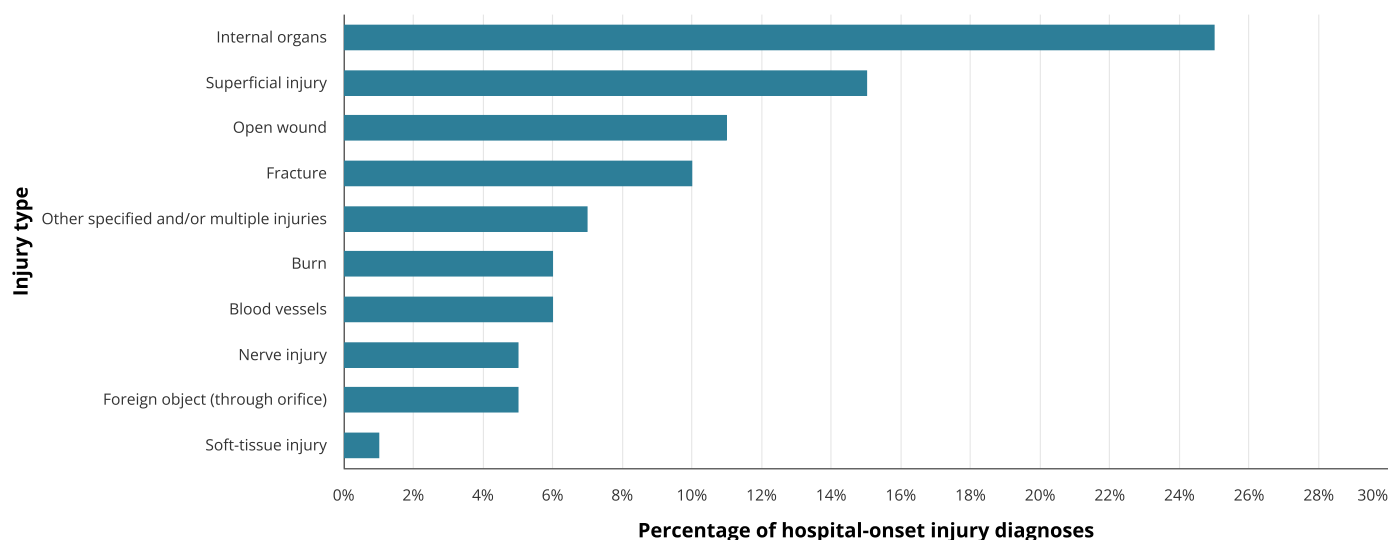
Notes:

1. Data show the percentage of hospital-onset complications of care from 2020–21 to 2024–25 combined.
2. Hospital-onset injuries exclude diagnosis codes T80-T88 *Complications of surgical and medical care* and T90-T98 *Sequelae of injuries, of poisoning and of other external causes*.
3. Analysis excludes care types 7.3, 9, 10, and separations for same day chemotherapy or haemodialysis.
4. Downloadable data tables are available on [Data](#). See Table S18.

Source: AIHW analysis of the National Hospital Morbidity Database

The most common injuries caused by complications of care (excluding injury diagnoses in the range T80-T88) in 2024–25 were injuries to internal organs (25%) and superficial injuries (15%) (Figure 12). This distribution was similar for each year covered in this report.

Figure 12: Ten most common hospital-onset injury types associated with complications of surgical and medical care, 2024–25



Downloadable data tables are available on [Data](#). See Table S21.

Source: AIHW analysis of the National Hospital Morbidity Database | [Data source overview](#)

Outcomes of hospital-onset injury

This section describes differences in the length of stay, intensive care unit (ICU) admission, discharge to residential care and in-hospital mortality for separations with a record of hospital-onset injury compared to those without for 2024–25. It excludes all separations with any diagnosis of T80-T88 *Complications of surgical and medical care* or T90-T98 *Sequelae of injuries, of poisoning and of other external causes*, including episodes with a record of other hospital-onset injuries, to minimise the potential for these complications to influence or distort the analysis of injury-related outcomes.

Measuring how hospital-onset injuries affect patient outcomes is difficult due to complex links between patient health, length of stay, and injury risk. Such injuries can lengthen hospitalisation (Hasan et al., 2025; Morello et al., 2015), however patients with longer stays often have more severe illnesses and are at higher risk of injury. Extended hospital stays increase the chance of adverse events (Hauck, 2011). Some research has used specialised methods to assess these effects on patient outcomes (Hauck, 2011; Trentino et al., 2013).

Length of stay

Patients with hospital-onset injuries had a median length of stay that was 11 days longer than those without such injuries, excluding same day separations (Table 3).

Hospital-onset injury rates were highest for patients who took leave days, received hospital in the home care, or had non-acute and sub-acute care (see [Health service characteristics](#)).

In all groups, those with hospital-onset injury also stayed longer in the hospital compared to those without injury (Table 3). The greatest differences in median length of stay were seen among patients with leave days (30 days longer), those receiving mental health care (14 days), and those with hospital in the home care (14 days) (Table 3).

While patients without injury in these groups also tended to have longer stays due to more complex care needs, the presence of a hospital-onset injury was associated with an additional increase in length of stay.

This pattern is likely influenced by patient complexity: individuals who are older, have more comorbidities, or higher clinical severity not only have longer hospital stays regardless of injury but are also more likely to experience hospital-onset injuries, which could further extend their stay.

Table 3: Length of stay of separations with and without hospital-onset injuries, by care type, leave days and hospital in the home, 2024–25

Patient group	Hospital-onset injury (median days)	No hospital-onset injury (median days)	Hospital-onset injury (25 th –75 th percentile)	No hospital-onset injury (25 th –75 th percentile)
All	13	2	6–27	1–5
Acute care	10	2	5–19	1–5
Rehabilitation care	23	13	14–40	8–20
Palliative care	16	5	8–31	2–10
Other subacute care	29	12	15–53	5–22
Mental health care	24	10	12–47	4–21
Leave days	42	12	22–84	5–26
No leave days	13	2	6–26	1–5
Hospital in the home	20	6	11–38	3–14
No hospital in the home	13	2	6–27	1–5

Notes:

- Percentiles express where an observation falls in range of other observations. For example, the 25th percentile indicates that 25% percent of observations are equal to or less than its value.
- Excludes diagnosis codes T80-T88 *Complications of surgical and medical care* and T90-T98 *Sequelae of injuries, of poisoning and of other external causes*.
- Analysis excludes care types 7.3, 9, 10, and all same day separations.
- Downloadable data tables are available on [Data](#). See Table S22.

Source: AIHW analysis of the National Hospital Morbidity Database

ICU admission

Separations with a record of hospital-onset injury were 5 times as likely to be admitted to ICU than those without hospital-onset injury.

In 2024–25, 3,914 (7.6%) separations with hospital-onset injury had an ICU stay, compared to 150,946 (1.5%) of separations without hospital-onset injury.

However, the temporal sequence cannot be established, and it is not possible to determine whether the ICU admission occurred before or after injury, or whether the injury occurred during the ICU stay.

Patients requiring ICU admission are acutely unwell and may therefore be at higher risk of hospital-onset injury; conversely, the injury itself may contribute to subsequent ICU admission. The available data do not allow these effects to be distinguished.

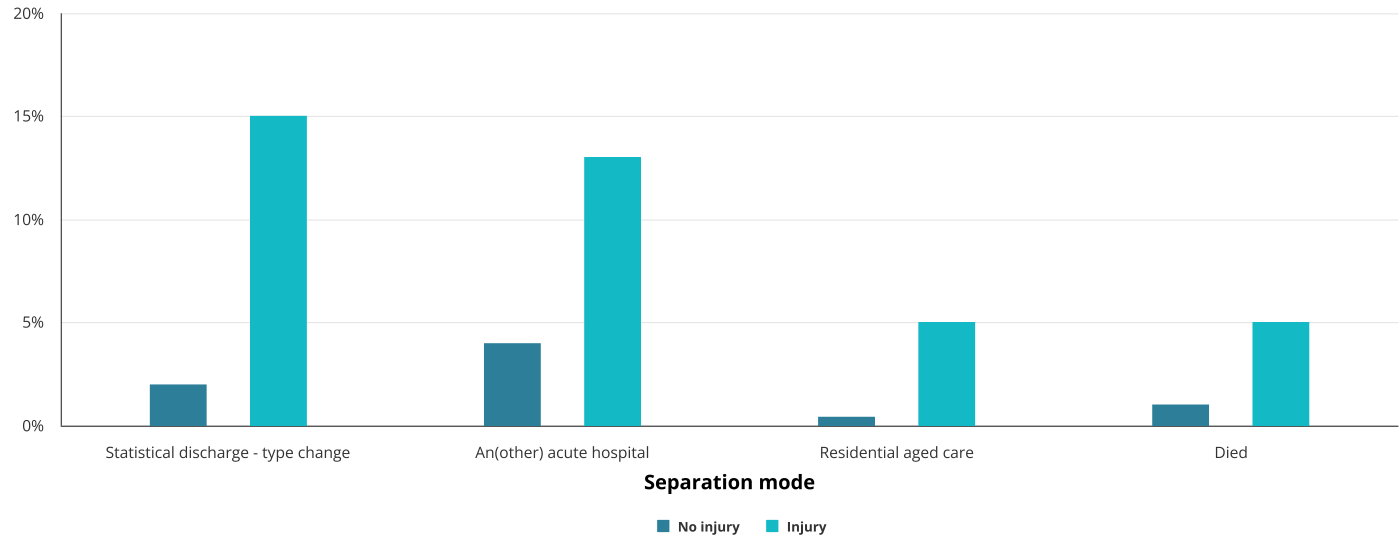
Separation mode

Compared to separations with no hospital-onset injury, a higher proportion of hospital-onset injury separations during 2024–25:

- had a statistical discharge, that is a change in care type – 15% and 2%
- were discharged or transferred to an acute hospital – 13% and 4%,
- were discharged or transferred to residential aged care that was not the usual place of residence – 5% and 0.4%
- died in hospital – 5% and 1% (Figure 13).

For comparisons of all modes of separation for each year, see [Data](#).

Figure 13: Separation mode for separations with and without hospital-onset injuries, 2024–25



Downloadable data tables are available on [Data](#). See Table S23.
Source: AIHW analysis of the National Hospital Morbidity Database | [Data source overview](#)

References

Hasan B, Bechenati D, Bethel HM, Cho S, Rajjoub NS, Murad ST, Kabbara Allababidi A, Rajjo TI, Yousufuddin M (2025), [A Systematic Review of Length of Stay Linked to Hospital-Acquired Falls, Pressure Ulcers, Central Line-Associated Bloodstream Infections, and Surgical Site Infections](#) *Mayo Clinic Proceedings: Innovations, Quality & Outcomes*, 9(3):100607, doi:10.1016/j.mayocpiqo.2025.100607.

Hauck K, Zhao X (2011), [‘How dangerous is a day in hospital? A model of adverse events and length of stay for medical inpatients’](#), *Medical Care*, 49(12):1068-75. doi:10.1097/MLR.0b013e31822efb09.

Morello RT, Barker AL, Watts JJ, Haines T, Zavarsek SS, Hill KD, Brand C, Sherrington C, Wolfe R, Bohensky MA, Stoelwinder JU (2015), [‘The extra resource burden of hospital-onset falls: a cost of falls study’](#) *Medical Journal of Australia*, 203(9):367, doi:10.5694/mja15.00296.

Trentino KM, Swain SG, Burrows SA, Sprivulis PC, Daly FF (2013), [‘Measuring the incidence of hospital-acquired complications and their effect on length of stay using CHADx’](#), *Medical Journal of Australia*, 199(8):543-7, doi:10.5694/mja12.11640. PMID: 24138380.

Technical notes

Data source

Hospitalisations data are sourced from the Australian Institute of Health and Welfare's (AIHW) [National Hospital Morbidity Database \(NHMD\)](#). This database includes data on virtually all hospital admissions in Australia, in both public and private hospitals. Data are collected for each episode of hospital care (called a hospital separation), which starts when a patient is admitted to hospital and ends when the hospital stay ends, or there is change in the type of care (for example, from acute care to rehabilitation hospital care).

Most diseases or conditions are recorded as a diagnosis following these criteria:

- Diseases are recorded as principal diagnosis when they are considered to be the primary reason for the patient being hospitalised.
- Diseases that coexist with principal diagnosis, or arise during the episode of care, are recorded as additional diagnoses when they affect the management of patients in terms of requiring therapeutic treatment, diagnostic procedures, or increased nursing care and/or monitoring.

For more information about data contained in the NHMD refer to the [AIHW Hospitals technical notes](#) and [glossary](#).

Identification of hospital-onset injuries

Injury case identification

Hospital-onset injury refers to injuries that occur after a patient has already been admitted to hospital, rather than injuries that were present on admission.

Hospital-onset injuries are defined as:

- an additional diagnosis of injury defined as ICD-10-AM codes S00-T98 using 'Chapter 19 Injury, poisoning and certain other consequences of external causes', and
- a condition flagged as onset during the episode of admitted patient care, and
- meeting the denominator criteria

Injuries due to *Complications of surgical and medical care* (T80–T88) and *Sequelae of injuries, of poisoning and of other consequences of external causes* (T90–T98) are not described in detail as these classifications are reported elsewhere (ACSQHC 2026, AIHW 2025a, AIHW 2025b).

The condition onset flag (COF) indicates the onset of the condition relative to the beginning of the admitted patient episode of care. The same COF should be allocated to the external cause, place of occurrence and activity codes to match that of the corresponding injury or disease code. See [METEOR 796636](#) for more information.

Analysis cohorts

All hospital separations in the NHMD from 2015–16 to 2024–25, excluding separations with any of the following:

- Care type is 'Newborn with only unqualified days' (Care type=7.3)
- Care type is 'Hospital boarder' (Care type=10)
- Care type is 'Organ procurement – posthumous' (Care type=9)
- Same-day chemotherapy – DRG: R63Z and admission date=separation date
- Same-day haemodialysis – DRG: L61Z and admission date=separation date

Sequencing of injury diagnosis and external cause codes

The external cause code should be sequenced directly after an injury, poisoning or other adverse event diagnosis code, followed by place of occurrence (for external cause codes V00-Y84) and activity codes (for V00-Y34) (see [METEOR 746659](#))

Multiple cause codes may be assigned if they are required to classify the clinical concept, and multiple diagnoses may arise from the same cause. Therefore, relationships between codes can be inferred incorrectly as there is no diagnosis cluster indicator up to ICD-10-AM twelfth addition.

Injury diagnosis codes were mapped to their corresponding external cause code as follows:

1. An external cause code immediately following an injury code in sequence was linked.
2. For multiple consecutive injury diagnosis codes, the external cause code following the last diagnosis in the sequence was linked to the preceding injury codes.
3. If there were multiple external cause codes for an injury (or series of injuries), the first reported external cause was taken. This is usually the one that most closely describes the cause or intent related to the diagnosis.

A limitation of this method is that injury diagnosis codes appearing within a sequence containing both injury and non-injury codes may not be associated with an external cause, unless the injury code is the final entry in the sequence.

With ICD-10-AM thirteenth edition a diagnosis cluster identifier has been introduced (see [METEOR 799088](#)) which will improve the quality of data available to report on additional diagnoses in future.

Methods

Rates and proportions

As this report focused on admitted patients, the analysis did not use Estimated Resident Population (ERP) data (which are often used in other reporting) to derive rates. Rather, this report used more specific denominators that better reflected the cohorts of interest.

One episode of admitted care could include multiple injury diagnoses, therefore the total number of diagnoses will be greater than the number of hospital separations.

Measure	Numerator	Denominator	Timeframe
Rate of hospital-onset injury per 10,000 separations	Number of separations with a record of hospital-onset injury	Total number of separations	Annual (financial year)
Rate of hospital-onset injury per 10,000 bed days	Number of separations with a record of hospital-onset injury	Total number of bed days	Annual (financial year)
Percentage of injury diagnoses	Number of injury diagnoses for a specific injury type or external cause	Total number of injury diagnoses	Annual (financial year)

Socioeconomic status

Comparisons between areas that are more or less socioeconomically disadvantaged are based on the Socioeconomic Indexes for Areas (SEIFA) which uses the Index of Relative Socioeconomic Disadvantage (IRSD).

The IRSD classifies individuals according to the socioeconomic characteristics of the area in which they live. It scores each area by summarising attributes of the population, such as income, educational attainment, unemployment rate and jobs in relatively unskilled occupations. The index does not show how individuals living in the same area differ from each other in their socioeconomic group.

Refer to the [ABS Socioeconomic indexes for areas \(SEIFA\): Technical paper 2021](#) for more information.

Remoteness

Comparisons between remoteness areas use the Australian Statistical Geography Standard (ASGS) Remoteness Areas structure, which is based on area of residence. Australia is divided into 5 classes of remoteness based on a measure of relative access to services. The 5 remoteness areas are *Major cities*, *Inner regional*, *Outer regional*, *Remote* and *Very remote*. Refer to the [ABS Remoteness structure](#) for more information.

Data suppression and confidentiality

Data (cells) in tables may be suppressed to maintain the privacy or confidentiality of a person or organisation; or because a proportion, rate (numerator or denominator) or other measure is related to a small number of events (and may therefore not be reliable). Data may also be suppressed to avoid attribute disclosure. The abbreviation ‘n.p.’ (not published) has been used in tables to denote these suppressions. In these tables, the suppressed information is included in the totals.

References

ACSQHC (Australian Commission and Safety and Quality in Health Care) (2026), [Hospital-acquired complications](#), (HACs), ACSQHC website, accessed 3 February 2026.

AIHW (Australian Institute of Health and Welfare) (2025a) [Admitted patient care 8: Safety and quality of health systems](#), AIHW website, accessed 3 February 2025

AIHW (2025b) [Hospital acquired complications](#), AIHW website, accessed 3 February 2025.

Notes

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Data

Data tables: Injuries occurring among admitted patients

Data

XLSX 218kB

Related material

Resources

Australia's health performance (hub)

Resource

Other websites

[Hospital-acquired complications \(HACs\)](#) | [Australian Commission on Safety and Quality in Health Care](#)

Related topics

- [Health care quality & performance](#)
 - [Hospitals](#)
 - [Injury](#)
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