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Work related hospitalised injury, Australia

2006–07 to 2013–14

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Work-related hospitalised injury, Australia

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Abbreviations

ABS	Australian Bureau of Statistics
AIHW	Australian Institute of Health and Welfare
ASGC	Australian Standard Geographical Classification
ASGS	Australian Statistical Geography Standard
ERP	estimated resident population
ICD-10-AM	International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification
MLOS	mean length of stay
NCCH	National Centre for Classification in Health
nec	not elsewhere classified
NHMD	National Hospital Morbidity Database
SEIFA	Socio-Economic Indexes for Areas
SES	socioeconomic status
SWA	Safe Work Australia
WC	workers' compensation

Symbols

n.p.	not publishable because of small numbers, confidentiality or other concerns about the quality of the data
..	not applicable

Summary

This report covers work-related injury by providing information on two sets of hospitalised cases. The first is hospitalised cases funded by workers' compensation. The second, which overlaps with the first, is hospitalised injury cases where the injury was reported as having occurred while the patient was working.

Hospitalised cases funded by workers' compensation

A total of about 617,755 hospitalised cases were funded by workers' compensation in Australia in the period from 2006–07 to 2013–14. Of these cases, just over 72% were male and 96% were aged 15–64. The number of cases was estimated using data on episodes in hospital. Cases that resulted in more than one episode are likely to have been counted more than once.

Just over 73% of hospitalised cases funded by workers' compensation were admitted to a private hospital. The overall mean length of stay (MLOS) for these cases was 2.5 days.

Almost 38% of hospitalised cases funded by workers' compensation had a principal diagnosis indicating a disease of the musculoskeletal system and connective tissue while a further 32% had a principal diagnosis of injury, including poisoning.

Over one-quarter (26%) of cases with a principal diagnosis of a musculoskeletal system and connective tissue disease had some form of dorsopathy (spinal disease) while 25% had a disorder of the knee joint. A further one-fifth (18%) had a shoulder lesion.

Almost 15% of cases with a principal diagnosis of injury and poisoning involved a fall-related injury; 12% involved contact with some form of machinery; and 10% involved a transport-related injury. The most common types of injury for these cases were fractures (28%), soft-tissue injuries (22%) and open wounds (16%), while the most common body parts injured were the wrist and hand (36%) and knee and lower leg (14%).

Work-related hospitalised injury

There were a total of 234,104 hospitalised injury cases reported as work-related in Australia in the period from 2006–07 to 2013–14, of which 61% (143,104) were funded by workers' compensation. However, since there are almost 54,000 workers' compensation funded injury cases where it was not reported whether the injury occurred while working, this is likely to be an underestimate of the true number of work-related hospitalised injury cases. For the 91,000 cases funded by sources other than workers' compensation, 78,491 (86%) had a principal diagnosis of injury, while 9,012 (10%) had an additional diagnosis of injury.

For the 78,491 cases with a principal diagnosis of 'injury', 85% were male and 93% were aged 15–64. Just over 18% of these cases involved a fall-related injury and 13% involved a transport-related injury. At the time of injury, over 15% of these cases were reported to be working in *Agriculture, forestry and fishing* sector and over 13% in the *Construction* industry. For 34% of the cases, the industry sector was unspecified, so these percentages are likely to be underestimates. The most common types of injury among the 78,491 cases were fractures (28%), open wounds (21%) and soft-tissue injuries (16%), while the most common bodily locations injured were wrist and hand (33%), head (12%) and knee and lower leg (11%).

1 Introduction

Most statistical reports of work-related injury or other work-related conditions have been based on workers' compensation data and data from coroners. Less use has been made of another source: data on cases admitted to a hospital. While most cases of work-related conditions do not result in admission to a hospital, those that are admitted include severe cases.

Since almost all episodes of admitted patient care in Australian hospitals are included in the National Hospital Morbidity Database (NHMD), it follows that this collection includes records for nearly all episodes of hospitalisation due to work-related conditions. However, the NHMD was not designed with occupational health and safety reporting in mind. This is reflected in incomplete identification of work-related cases among all cases recorded in the database. This report includes those cases that are identifiable as being work-related according to the criteria outlined below.

The main focus of the report is hospitalised work-related injury. However, cases of other conditions that satisfy the criteria for work-relatedness have also been considered, for these reasons. First, readers interested in hospitalised work-related injury may be interested in hospitalised work related cases of other conditions, and there is no other published source on them. Second, more than half of the hospitalised work-related cases other than injuries are musculoskeletal disorders. These are conditions 'which often develop from exposure to more than one risk factor and do not always fit neatly into an 'injury' or 'disease' category' (Miller et al. 2005), and the two types are sometimes reported together in reports of workers' compensation statistics (SWA 2014).

1.1 Hospital admitted patient data as a source of information on work-related hospitalised cases

Cases were included in this report if they were among admitted patient episodes for an Australian hospital that ended in the 8 year period 1 July 2006 to 30 June 2014. Cases which are the primary focus of this report were included if they met at least 1 of the following 2 criteria:

1. the funding source was workers' compensation
2. any *Activity when injured* field showed *While working for income* (U73.0).

Analysis of cases meeting the first of these criteria is presented in Chapter 2 of this report. Cases meeting the second of these criteria are described in Chapter 3, focusing on those for which the funding source was not workers' compensation.

Hospitalised cases funded by workers' compensation (Chapter 2)

This set of records was included on the basis of the NHMD data item 'Funding source for hospital patient', which is designed to record *The principal source of funds for an admitted patient episode or non-admitted patient service event*. Records in this section were selected where this item had the value representing *Workers' compensation*.

Chapter 2 also includes a comparison between hospitalised cases funded by workers' compensation and all workers' compensation claims for 'serious injury' according to a 2014 report by Safe Work Australia (SWA) entitled *Australian workers' compensation statistics 2012–13* (SWA 2014).

Work-related hospitalised injury (Chapter 3)

This set of records includes cases for which the first-reported activity field in the hospital record included the code from the ICD-10-AM *While working for income* (U73.0)*. Working for income* is defined as including paid work (manual or professional), transportation (time) to and from such activities, and work for salary, bonus and other types of income (NCCH 2013). The ICD-10-AM classification allows further specification of this set of cases according to the industry sector in which they occurred.

As expected, many work-related hospitalised injury cases have workers' compensation as the funding source, creating overlap between Chapter 2 and Chapter 3. The subset of work-related hospitalised injury cases that were not funded by workers' compensation, and thus not included in Chapter 2, is given particular attention in Chapter 3.

Other possible work-related cases

Consideration was also given to cases which met other criteria that might imply the likelihood of being work-related. These cases are briefly discussed in Appendix B: Other work-related hospitalised cases.

1.2 Period covered by report

Most of this report covers admitted patient episodes for Australian hospitals that ended in the period 1 July 2006 to 30 June 2014 and involved analysis of unit-record data extracted from the NHMD. Jurisdiction-specific material is based on data previously published in issues of the AIHW *Australian Hospital Statistics* reports and covers the period from 1 July 2001 to 30 June 2014.

2 Hospitalised cases funded by workers' compensation

As outlined in the Introduction, this chapter is confined to cases for which the source of hospital funding was workers' compensation. These cases have accounted for around 80,000 hospitalised cases annually in recent years.

Section 2.1 of this chapter provides an overview of all hospitalised cases funded by workers' compensation, while Sections 2.2 to 2.7 provide analysis of hospitalised cases within each of the 6 most frequently occurring diagnosis groups (as listed in Table 2.4). Together, these 6 diagnosis groups account for 95% of all workers' compensation funded hospitalised cases. Section 2.8 details a comparison between all workers' compensation funded hospitalised cases and all serious workers' compensation claims over the period from 2006–07 to 2013–14.

2.1 Overview

Age and sex

A total of 617,755 hospitalised cases were funded by workers' compensation in Australia in the period from 2006–07 to 2013–14 (Table 2.1). Of these cases, just over 72% (447,704) were male and 96% (593,139) were aged 15–64.

Workers' compensation insurance usually applies to people of working age. A small number of the hospitalised cases reported as having been funded by workers' compensation were young children. It is not clear whether this is due to reporting errors or compensation being provided in unusual circumstances.

Table 2.1: Hospitalised cases funded by workers' compensation, by age group, by sex, Australia, 2006–07 to 2013–14

Age group	Males	Females	Persons[(a)]	%
0–4	24	19	43	0.0
5–9	19	20	39	0.0
10–14	75	44	119	0.0
15–19	14,762	2,834	17,596	2.8
20–24	33,701	7,468	41,169	6.7
25–29	37,151	9,369	46,520	7.5
30–34	41,387	11,002	52,389	8.5
35–39	50,153	16,156	66,309	10.7
40–44	56,295	21,756	78,051	12.6
45–49	59,126	26,993	86,119	13.9
50–54	55,244	30,113	85,357	13.8
55–59	48,188	24,041	72,231	11.7
60–64	33,686	13,712	47,398	7.7

(continued)

Table 2.1 (continued): Hospitalised cases funded by workers' compensation, by age group, by sex, Australia, 2006–07 to 2013–14

Age group	Males	Females	Persons[(a)]	%
65–69	11,708	4,250	15,958	2.6
70–74	3,686	1,383	5,069	0.8
75–79	1,565	525	2,090	0.3
80–84	708	235	943	0.2
85+	226	129	355	0.1
Total	**447,704**	**170,049**	**617,755**	**100**

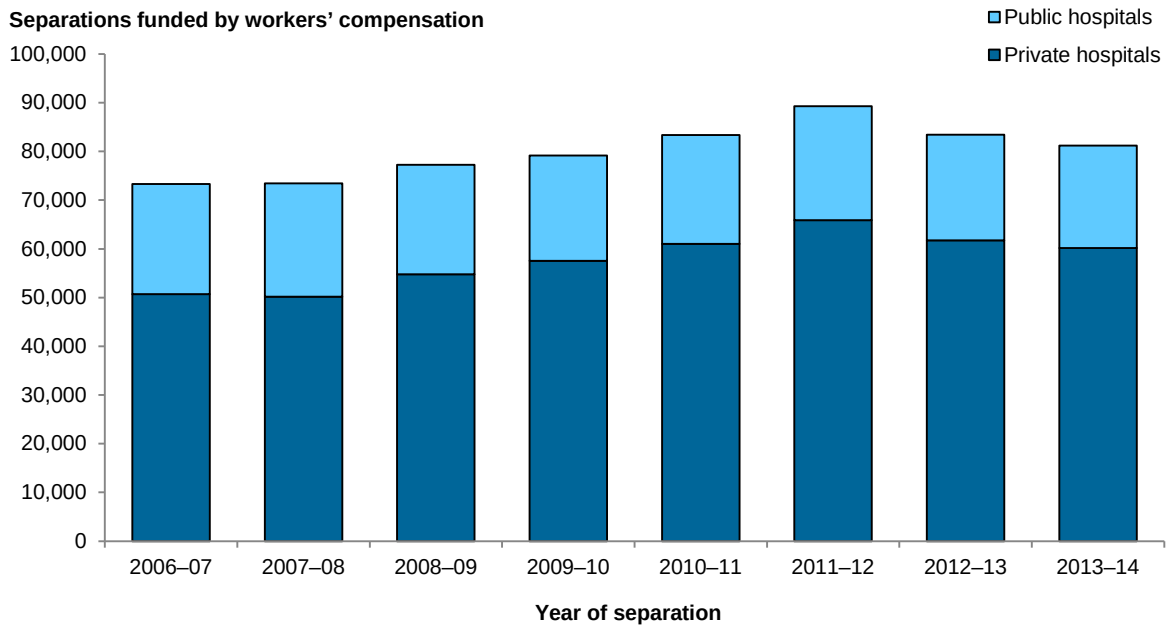
(a) Includes cases that were not specified as male or female.

Separations funded by workers' compensation

As distinct from the rest of the report, figures 2.1 to 2.3 display data in terms of 'separations' instead of hospitalised cases. This is because the data underlying these figures is extracted from AIHW Australian Hospitals Statistics publications, which only provide data in the form of separations.

National

The annual number of separations funded by workers' compensation increased until 2011–12 before decreasing in 2012–13 and 2013–14 (Figure 2.1). The proportion of separations funded by workers' compensation that were admitted to private hospitals was high throughout, and tended to increase over the period from 2006–07 to 2013–14.



Source: AIHW Australian Hospital Statistics publications 2006–07 to 2013–14.

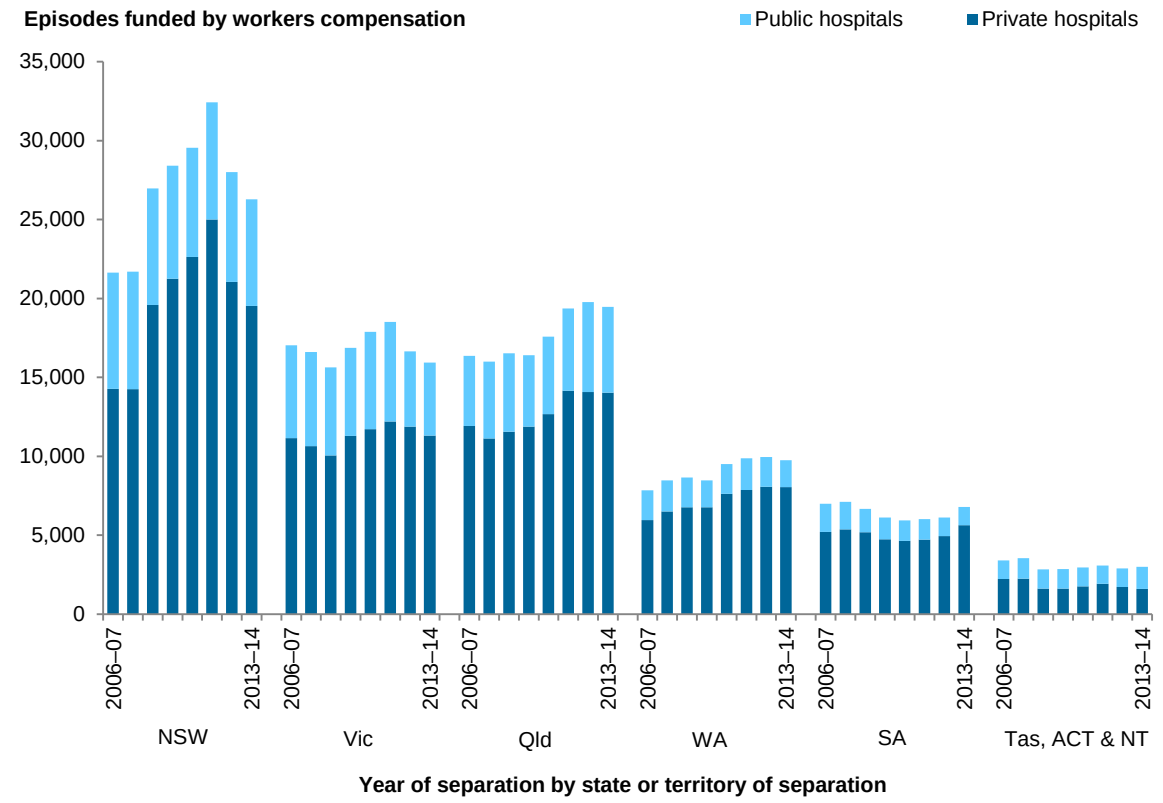
Figure 2.1: Separations funded by workers' compensation, by year of separation, by hospital sector, Australia, 2006–07 to 2013–14

State or territory of hospitalisation

Patterns in the annual number of separations funded by workers' compensation differed markedly by jurisdiction over the period from 2006–07 to 2013–14 (Figure 2.2). Counts for New South Wales increased until 2011–12 before dropping markedly, while counts for Queensland and Western Australia tended to increase over the entire period covered by this report. Counts for Victoria, South Australia and the less-populated jurisdictions fluctuated over the period, although the overall trend was relatively flat. The differing patterns among jurisdictions may reflect changes in legislation within each jurisdiction, affecting eligibility for workers' compensation.

The proportion of separations funded by workers' compensation that were admitted to private hospitals was high throughout, and tended to increase over the period in New South Wales, Victoria, Western Australian and South Australia, while not changing for Queensland. In contrast, this measure declined over the period for the 3 least-populated jurisdictions combined. The proportion was 70% or higher over the period in New South Wales, Queensland, Western Australian and South Australia and had risen to over 70% by the end

of the period for Victoria. For the 3 least-populated jurisdictions combined, this proportion fell from 66% in 2006–07 to 53% in 2013–14.



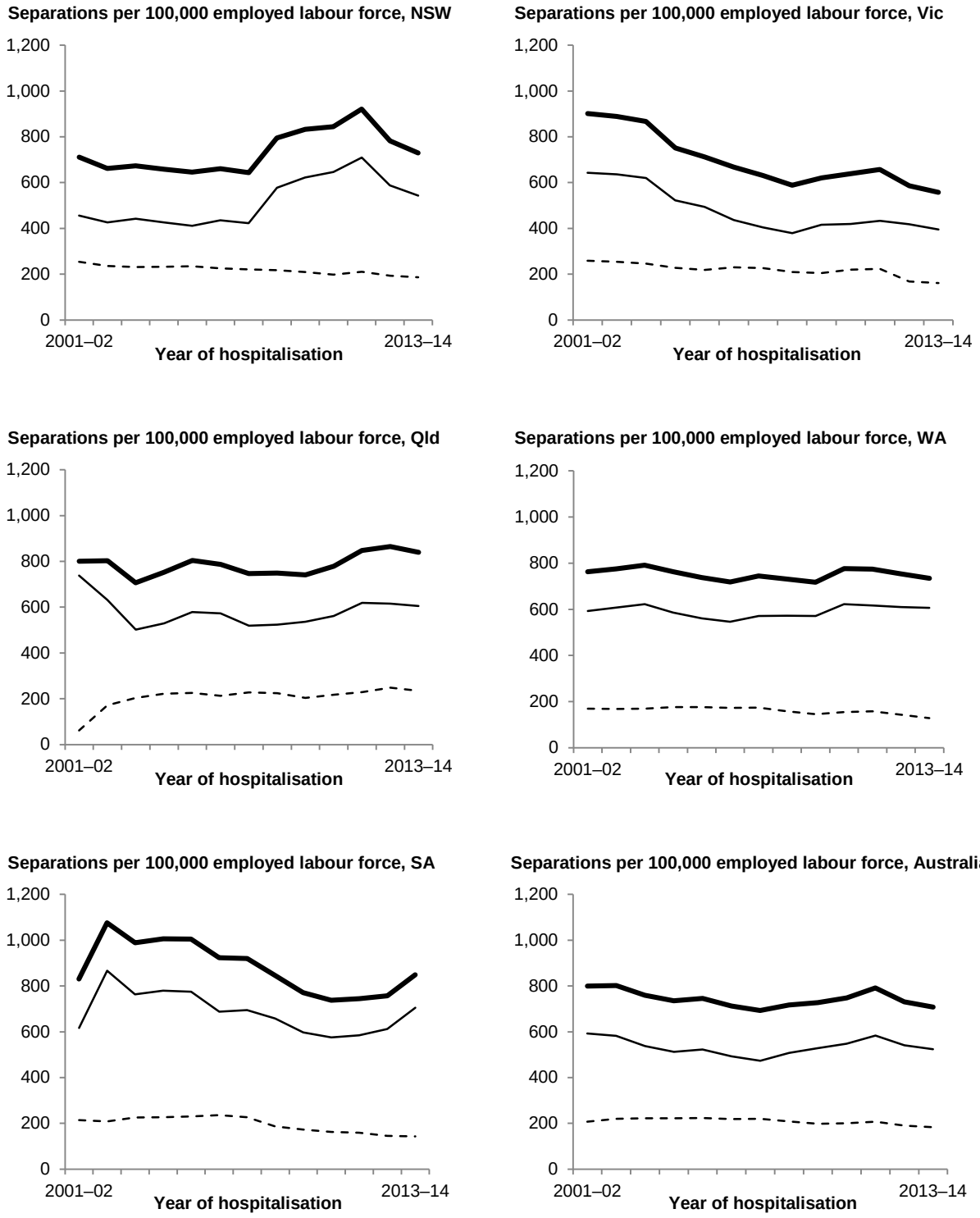
Source: AIHW Australian Hospital Statistics publications 2006–07 to 2013–14.

Figure 2.2: Separations funded by workers' compensation, by year of separation, by state or territory of hospitalisation, by hospital sector, Australia, 2006–07 to 2013–14

Trends in separation rates funded by workers' compensation

Labour force-based crude rates of separations funded by workers' compensation for private hospitals in New South Wales, Victoria, Queensland, South Australia and nationally were consistently 2 to 4 times as high as rates for public hospitals over the period from 2001–02 to 2013–14 (Figure 2.3). For Western Australia, rates for private hospitals were consistently 5 to 6 times as high as rates for public hospitals over the same period.

Rates for private hospitals in New South Wales rose sharply between 2007–08 and 2011–12 before dipping in 2012–13 and 2013–14. Rates for private hospitals in Victoria trended downwards over the period covered by this report, while rates for private hospitals in Queensland, Western Australia and nationally were relatively steady despite some fluctuation. Following an early sharp rise, rates for private hospitals in South Australia trended downwards before another rise late in the period. Rates for public hospitals for all jurisdictions trended downwards slightly, except for Queensland, where rates were relatively steady after about 2003–04.



Notes

1. Private hospitals are represented by the thin line, public hospitals by the dotted line and all hospitals by the thick line.
2. Labour force participation data extracted from ABS cat. no. 6202.0—Labour force, Australia, June 2016.

Source: AIHW Australian Hospital Statistics publications 2001–02 to 2013–14.

Figure 2.3: Crude rates of workers' compensation funded separations per 100,000 employed labour force, by state of hospitalisation and for Australia, 2001–02 to 2013–14

Remoteness area of residence

Almost two-thirds of those whose episode of hospitalisation was funded through workers' compensation resided in *Major cities* (Table 2.2). The remainder resided mainly in *Inner regional* and *Outer regional* areas, while about 2.5% resided in *Remote* or *Very remote* areas. Residents of *Inner regional* areas had the highest age-standardised rate of hospitalisation (418 per 100,000 population)—almost 1.5 times as high as the rate for residents of *Very remote* areas.

Table 2.2: Hospitalised cases funded by workers' compensation, by remoteness area of residence, Australia, 2006–07 to 2013–14

Remoteness area of residence	Males	Females	Persons[(a)]	%	Rate[(b)]
Major cities	290,017	115,706	405,724	*65.7*	325.3
Inner regional	98,777	36,700	135,477	*21.9*	417.7
Outer regional	46,037	13,890	59,928	*9.7*	379.8
Remote	7,653	2,211	9,864	*1.6*	378.6
Very remote	3,212	991	4,203	*0.7*	273.3
Not reported	2,008	551	2,559	*0.4*	..
Total	**447,704**	**170,049**	**617,755**	**100**	**346.8**

(a) Includes cases that were not specified as male or female.

(b) Rate = age-standardised rate per 100,000 population.

Note that the values in Table 2.2, and in all subsequent tables and figures, are estimated incident case numbers (see Estimating Incident Cases in Appendix A: Data issues), whereas the values in figures 2.1 to 2.3, above, are based on numbers of hospital separations.

Socioeconomic status

By definition, 20% of the Australian population is in each of the socioeconomic status (SES) groups distinguished in Table 2.3. However, only 13.5% of hospitalised cases funded by workers' compensation were for people in the least disadvantaged fifth of the population. A little more than 20% of the cases were for people in each of the 3 most disadvantaged fifths of the population.

Table 2.3: Hospitalised cases funded by workers' compensation, by fifths of the population according to socioeconomic status, Australia, 2006–07 to 2013–14

SEIFA fifths of the population	Males	Females	Persons	%
Most disadvantaged	99,690	34,491	134,183	21.7
Second most disadvantaged	102,497	38,343	140,840	22.8
Middle	99,936	37,106	137,042	22.2
Second least disadvantaged	85,742	33,734	119,476	19.3
Least disadvantaged	57,715	25,784	83,499	13.5
Not reported	2,124	591	2,715	0.5
Total	**447,704**	**170,049**	**617,755**	**100**

Notes

1. SEIFA group allocation for cases in 2006–07 to 2011–12 was based on the Australian Standard Geographic Classification (ASGC), while allocation for cases in 2012–13 and 2013–14 was based on the Australian Standard Geographical System (ASGS).
2. Persons includes cases that were not specified as male or female.

Diagnosis group

Almost 38% (232,230) of hospitalised cases funded by workers' compensation had a principal diagnosis indicating a disease of the musculoskeletal system and connective tissue, while 32% (198,466) had a principal diagnosis of injury (Table 2.4). Other common diagnosis groups included *Factors influencing health status and contact with health services* (11%), *Mental and behavioural disorders* (6%), *Diseases of the digestive system* (5%) and *Diseases of the nervous system* (4%). Further information is provided in later sections of this chapter on the 6 most numerous types of case shown in Table 2.4, including these 4 types.

Table 2.4: Hospitalised cases funded by workers' compensation, by diagnosis group, by sex, Australia, 2006–07 to 2013–14

Diagnosis group (based on principal diagnosis)	Males	Females	Persons	%
Certain infectious and parasitic diseases	451	115	566	0.1
Neoplasms	3,040	483	3,523	0.6
Diseases of the blood and blood-forming organs and certain disorders involving the immune system	153	114	267	0.0
Endocrine, nutritional and metabolic diseases	455	510	965	0.2
Mental and behavioural disorders	19,334	15,050	34,384	5.6
Diseases of the nervous system	13,942	12,136	26,078	4.2
Diseases of the eye and adnexa	1,485	405	1,890	0.3
Diseases of the ear and mastoid process	335	84	419	0.1
Diseases of the circulatory system	2,564	695	3,259	0.5
Diseases of the respiratory system	1,801	654	2,455	0.4
Diseases of the digestive system	28,787	2,542	31,329	5.1
Diseases of the skin and subcutaneous tissue	6,728	1,568	8,296	1.3
Diseases of the musculoskeletal system and connective tissue	155,474	76,755	232,230	37.6
Diseases of the genitourinary system	1,303	601	1,904	0.3
Pregnancy, childbirth and the puerperium	0	125	125	0.0
Certain conditions originating in the perinatal period	2	1	3	0.0
Congenital malformations, deformations and chromosomal abnormalities	131	84	215	0.0
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	4,031	1,969	6,000	1.0
Injury, poisoning and certain other consequences of external causes	164,380	34,085	198,466	32.1
Factors influencing health status and contact with health services	43,110	21,977	65,087	10.5
Not reported	198	96	294	0.0
Total	**447,704**	**170,049**	**617,755**	**100**

Notes

1. The table rows are ordered according to the chapters of ICD-10-AM.
2. Persons includes cases that were not specified as male or female.

Mean length of stay and emergency status

The overall mean length of stay (MLOS) for hospitalised cases funded by workers' compensation in the period from 2006–07 to 2013–14 was 2.5 days (Table 2.5). The longest MLOS was recorded for cases with *Certain infectious and parasitic diseases* (7.1 days) followed by cases with *Mental and behavioural disorders* (5.2 days). Cases with *Diseases of the digestive system* recorded the shortest MLOS (1.3 days).

There were marked differences in MLOS between males and females for some diagnosis groups, most notably for cases afflicted with *Endocrine, nutritional and metabolic diseases* where the MLOS for males of 6.9 days was more than 3 times the MLOS for females of 2.2 days.

Patients admitted with a principal diagnosis indicating *Certain infectious or parasitic diseases* had the highest proportion of emergency admissions (74%). Other diagnosis groups with high proportions of emergency admissions included *Diseases of the circulatory system* (58%), *Injury, poisoning and certain consequences of external causes* (58%) and *Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified* (52%).

Table 2.5: Hospitalised cases funded by workers' compensation by diagnosis group: mean length of stay in hospital by sex and % that were emergency admissions, Australia, 2006–07 to 2013–14

	Mean length of stay			% admitted as emergency cases
Diagnosis group	**Males**	**Females**	**Persons**	
Certain infectious and parasitic diseases	6.7	8.6	7.1	74.2
Neoplasms	4.0	3.4	3.9	12.2
Diseases of the blood and blood-forming organs and certain disorders involving the immune system	4.1	2.3	3.3	22.5
Endocrine, nutritional and metabolic diseases	6.9	2.2	4.4	29.5
Mental and behavioural disorders	4.8	5.8	5.2	3.4
Diseases of the nervous system	1.6	1.5	1.5	4.0
Diseases of the eye and adnexa	1.5	1.3	1.5	17.5
Diseases of the ear and mastoid process	1.4	1.8	1.5	17.2
Diseases of the circulatory system	4.6	5.2	4.7	57.8
Diseases of the respiratory system	4.4	2.5	3.9	37.8
Diseases of the digestive system	1.3	1.9	1.3	4.2
Diseases of the skin and subcutaneous tissue	3.5	3.0	3.4	43.7
Diseases of the musculoskeletal system and connective tissue	1.8	1.8	1.8	4.4
Diseases of the genitourinary system	n.p.	n.p.	n.p.	n.p.
Pregnancy, childbirth and the puerperium	n.p.	n.p.	n.p.	n.p.
Certain conditions originating in the perinatal period	25.5	6.0	19.0	0.0
Congenital malformations, deformations and chromosomal abnormalities	2.1	2.7	2.4	4.7
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	1.9	2.0	2.0	52.3
Injury, poisoning and certain other consequences of external causes	2.7	2.7	2.7	58.2
Factors influencing health status and contact with health services	3.8	3.4	3.7	1.7
All diagnosis groups	**2.5**	**2.6**	**2.5**	**23.0**

Hospital sector

Just over 73% (452,277) of hospitalised cases funded by workers' compensation in the period from 2006–07 to 2013–14 were admitted to a private hospital (Table 2.6). Diagnosis groups with the highest percentage of admissions to a private hospital were *Mental and behavioural disorders* (96%) and *Diseases of the musculoskeletal system and connective tissue* (93%), while diagnosis groups with the lowest percentage of admissions to a private hospital were *Certain infectious and parasitic diseases* (23%) and *Endocrine, nutritional and metabolic diseases* (32%).

Table 2.6: Hospitalised cases funded by workers' compensation, by diagnosis group, by hospital sector, Australia, 2006–07 to 2013–14

	Hospital sector			
Diagnosis group	**Public**	**Private**	**Total**	**% private**
Certain infectious and parasitic diseases	433	133	566	23.5
Neoplasms	870	2,653	3,523	75.3
Diseases of the blood and blood-forming organs and certain disorders involving the immune system	117	150	267	56.2
Endocrine, nutritional and metabolic diseases	658	307	965	31.8
Mental and behavioural disorders	1,521	32,863	34,384	95.6
Diseases of the nervous system	2,969	23,109	26,078	88.6
Diseases of the eye and adnexa	673	1,217	1,890	64.4
Diseases of the ear and mastoid process	118	301	419	71.8
Diseases of the circulatory system	1,932	1,327	3,259	40.7
Diseases of the respiratory system	1,016	1,439	2,455	58.6
Diseases of the digestive system	3,226	28,103	31,329	89.7
Diseases of the skin and subcutaneous tissue	4,230	4,066	8,296	49.0
Diseases of the musculoskeletal system and connective tissue	15,487	216,743	232,230	93.3
Diseases of the genitourinary system	574	1,330	1,904	69.9
Pregnancy, childbirth and the puerperium	40	85	125	68.0
Certain conditions originating in the perinatal period	1	2	3	66.7
Congenital malformations, deformations and chromosomal abnormalities	22	193	215	89.8
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	3,299	2,701	6,000	45.0
Injury, poisoning and certain other consequences of external causes	119,866	78,600	198,466	39.6
Factors influencing health status and contact with health services	8,389	56,698	65,087	87.1
Not reported	37	257	294	87.4
Total	**165,478**	**452,277**	**617,755**	**73.2**

2.2 Injury, poisoning and certain other consequences of external causes

This section provides a description of hospitalised cases funded by workers' compensation where the Principal diagnosis is an ICD-10-AM code in the range S00–T98: *Injury, poisoning and certain other consequences of external causes*. For brevity, this type of case is referred to here as injury. Note that Chapter 3 describes other cases where injury occurred while working for income, but the hospital episode was not funded by workers' compensation. See Appendix A: Data issues for further information on selection criteria for this section and Chapter 3.

Major external cause groups

A summary of the external causes of hospitalised injury cases funded by workers' compensation is given in Table 2.7. Almost two-thirds (126,946) of the cases were assigned an ICD-10-AM code from the diverse *Other unintentional* external cause group (Table 2.7). The next most common major external cause groups were *Falls* (15%) and *Transport crashes* (10%). Further information on these three groups is provided below.

Nearly 7% of the cases shown in Table 2.7 were recorded as being complications of medical and surgical care. These cases differ from the other types shown in the table. Typical of other cases are traumatic injuries (for example, fractures) resulting from external causes that occur in the general community (for example, car crashes). Typical of complications cases are abnormal reactions or complications arising after a surgical or medical procedure. While the condition prompting the procedure will have been an injury in some cases, in other cases it will not have been an injury. The large number of *Complications of care* cases in Table 2. 2 reflects the fact that ICD-10-AM assigns this type of case to the same chapter as injuries.

Table 2.7: Hospitalised injury cases funded by workers' compensation, by major external cause group, by sex, Australia, 2006–07 to 2013–14

Major external cause group	Males	Females	Persons[(a)]	%
Unintentional causes				
Transport crashes	16,017	4,358	20,376	10.3
Drowning	9	3	12	0.0
Poisoning, pharmaceuticals	72	34	106	0.1
Poisoning, other substances	1,727	316	2,043	1.0
Falls	19,775	9,102	28,877	14.6
Fires/burns/scalds	2,498	566	3,064	1.5
Other unintentional	110,857	16,089	126,946	64.0
Intentional, self-inflicted	100	112	212	0.1
Intentional, inflicted by another	1,906	293	2,199	1.1
Undetermined intent	554	89	643	0.3
Complications of medical or surgical care.	10,478	3,051	13,529	6.8
Sequelae of external cause	262	50	312	0.2
No external cause code	125	22	147	0.1
Total	**164,380**	**34,085**	**198,466**	**100**

(a) Includes cases that were not specified as male or female.

Transport crashes

Just over one-quarter (25%, or 5,166) of hospitalised cases funded by workers' compensation due to transport crashes involved car occupants, while a further 18% involved motorcycle riders (Table 2.8). The next most frequent modes of transport among these cases were heavy transport vehicles (13%) and animals or animal-drawn vehicles (11%).

Table 2.8: Hospitalised injury cases funded by workers' compensation due to transport crashes, by mode of transport, by sex, Australia, 2006–07 to 2013–14

Injured person's mode of transport	Males	Females	Persons[(a)]	%
Car	3,244	1,922	5,166	25.4
Motorcycle	3,352	380	3,732	18.3
Pedal cycle	1,192	250	1,442	7.1
Pedestrian	1,090	332	1,423	7.0
Animal or animal-drawn vehicle	1,274	946	2,220	10.9
Heavy transport vehicle	2,517	69	2,586	12.7
Pick-up truck or van	483	35	518	2.5
Special all-terrain or off-road vehicle	270	64	334	1.6
Bus	99	59	158	0.8
Special agricultural vehicle	294	30	324	1.6
Railway train or railway vehicle	60	14	74	0.4
Special industrial vehicle	760	41	801	3.9
Three-wheeled motor vehicle	9	2	11	0.1
Tram	5	3	8	0.0
Special construction vehicle	262	2	264	1.3
Watercraft	338	46	384	1.9
Aircraft	92	23	115	0.6
Unknown	676	140	816	4.0
Total	**16,017**	**4,358**	**20,376**	**100**

(a) Persons includes cases that were not specified as male or female.

Whether transport crashes occurred on-road

The data available on most of the types of case described in Table 2.8 records whether the crash occurred in *traffic* (nearly equivalent to on-road), or not. The cases where the traffic/non-traffic distinction can be drawn are referred to here as being due to land transport crashes (Table 2.9). The ICD-10-AM classification does not make the traffic/non-traffic distinction for cases where the mode of transport was an animal or an animal-drawn vehicle, nor for cases involving air and water transport (for which this distinction is not usually relevant).

Almost 70% (12,065) of hospitalised cases funded by workers' compensation involving land transport crashes occurred in traffic (Table 2.9). The highest proportions of injuries occurring in traffic settings were seen for car occupants (92%), motorcyclists (78%) and pedal cyclists (78%). In contrast, the highest proportion of those injured in non-traffic settings were occupants of special all-terrain or off-road vehicles (92%), and occupants of special agricultural, industrial or construction vehicles, where proportions were around 85% or higher.

Table 2.9: Hospitalised injury cases funded by workers' compensation and due to land transport crashes by setting, Australia, 2006–07 to 2013–14

	Setting					
Injured person's mode of transport	Traffic	Non-traffic	Unspecified	Total	Traffic %	Non-traffic %
Car	4,772	291	103	5,166	92.4	5.6
Motorcycle	2,928	729	75	3,732	78.5	19.5
Pedal cycle	1,129	292	21	1,442	78.3	20.2
Pedestrian	755	492	176	1,423	53.1	34.6
Heavy transport vehicle	1,615	603	368	2,586	62.5	23.3
Pick-up truck or van	299	142	77	518	57.7	27.4
Special all-terrain or off-road vehicle	21	307	6	334	6.3	91.9
Bus	99	24	35	158	62.7	15.2
Special agricultural vehicle	17	287	20	324	5.2	88.6
Railway train or railway vehicle	5	1	68	74	6.8	1.4
Special industrial vehicle	35	692	74	801	4.4	86.4
Three-wheeled motor vehicle	5	6	0	11	45.5	54.5
Tram	1	0	7	8	12.5	0.0
Special construction vehicle	15	223	26	264	5.7	84.5
Unknown	369	100	77	546	67.6	18.3
Total (Land transport)	**12,065**	**4,189**	**1,133**	**17,387**	**69.4**	**24.1**

Occupant type

Almost 69% (9,555) of people whose hospitalisation for an injury sustained in a land transport crash while in or on a motor vehicle was funded by workers' compensation had been driving when injured (Table 2.10). The modes of transport with the highest proportion of drivers as the injured person were special all-terrain or off-road vehicles (83%), motorcycles (78%) and cars (76%), while the mode of transport with the lowest proportion of drivers was special industrial vehicles (39%). In more than one-third of the cases where the mode of transport was a special agricultural, industrial, or construction vehicle, the injured person was recorded as having been on the outside of the vehicle.

Table 2.10: Hospitalised injury cases funded by workers' compensation by mode of transport and occupant type for land transport crashes involving a motor vehicle, Australia, 2006–07 to 2013–14

	Occupant type						
Injured person's mode of transport	Driver	Passenger	On outside	Boarding/ alighting	Unspecified	Total	Driver %
Car	3,928	622	54	64	498	5,166	76.0
Motorcycle	2,914	37	0	2	779	3,732	78.1
Heavy transport vehicle	1,538	91	309	252	396	2,586	59.5
Pick-up truck or van	262	41	66	46	103	518	50.6
Special all-terrain or off-road vehicle	278	20	11	6	19	334	83.2

(continued)

Table 2.10 (continued): Hospitalised injury cases funded by workers' compensation by mode of transport and occupant type for land transport crashes involving a motor vehicle, Australia, 2006–07 to 2013–14

Injured person's mode of transport	Occupant type						
	Driver	Passenger	On outside	Boarding/ alighting	Unspecified	Total	Driver %
Bus	70	42	1	24	21	158	44.3
Special agricultural vehicle	138	14	115	20	37	324	42.6
Special industrial vehicle	309	10	302	74	106	801	38.6
Three-wheeled motor vehicle	6	2	0	0	3	11	54.5
Special construction vehicle	112	3	92	26	31	264	42.4
Total (Motor vehicles)[(a)]	**9,555**	**882**	**950**	**514**	**1,993**	**13,894**	**68.8**

(a) Excludes occupants of railway trains or vehicles (n=74) and trams (n=8) since it is not possible to distinguish between drivers and passengers for these modes of transport in the data available.

Falls

Over one-quarter (28%) of hospitalised injury cases funded by workers' compensation which were assigned to the *Falls* external cause group involved falling on the same level, from slipping, tripping or stumbling (Table 2.11). Other common types were falls on or from a ladder (13%), falls on or from steps and stairs (9%) and falls from, out of or through a building or structure (7%).

Table 2.11: Hospitalised injury cases funded by workers' compensation and due to falls, by type of fall and sex, Australia, 2006–07 to 2013–14

Type of fall	Males	Females	Persons	%
Same level involving ice and snow	21	11	32	0.1
Same level from slipping, tripping and stumbling	3,927	4,065	7,992	27.7
Roller skates, skateboards, scooters and other pedestrian conveyances	83	37	120	0.4
Same level due to contact with another person	141	73	214	0.7
Involving chair	126	221	347	1.2
Involving other furniture	34	42	76	0.3
Involving playground equipment	19	20	39	0.1
On or from steps and stairs	1,230	1,332	2,562	8.9
On or from ladder	3,447	292	3,739	12.9
On or from scaffolding	782	10	792	2.7
From, out of or through building or structure	2,052	76	2,128	7.4
From tree	111	5	116	0.4
From cliff	70	19	89	0.3
Diving or jumping into water	36	6	42	0.1
Other fall from one level to another	3,659	361	4,020	13.9
Other fall on same level	1,164	771	1,935	6.7
Unspecified fall	2,873	1,761	4,634	16.0
Total	**19,775**	**9,102**	**28,877**	**100**

Other unintentional causes

As shown in Table 2.10, nearly two-thirds of hospitalised cases funded by workers' compensation (126,946) were assigned to the *Other unintentional* external cause group. This diverse group of cases is described further here and in Table 2.12.

Almost 13% of the hospitalised cases funded by workers' compensation that were assigned to the *Other unintentional* external cause group involved contact with *Other and unspecified machinery* (Table 2.12), most commonly metalworking machinery and woodworking and forming machinery. Other common mechanisms were *Struck or striking against objects* (10%), *Caught, crushed, jammed or pinched in between objects* (8%), or *Overexertion and strenuous or repetitive movements* (7%).

The types of power tools most often recorded as being involved in hospitalised cases due to *Contact with powered hand tools and household machinery* (6%) were grinders, saws, nail guns and drills while the cases due to being *Struck, bitten or crushed by an animal* (2.3%) most commonly involved cattle, horses and dogs.

This group includes the 38,430 cases (19.4% of all injury cases) that were coded as being due to exposure to an unspecified factor.

Table 2.12: Hospitalised injury cases involving 'Other unintentional' causes and funded by workers' compensation by mechanism of injury and sex, Australia, 2006–07 to 2013–14

External cause	Males	Females	Persons	Other unintentional cases % (126,946)
Struck by or striking against objects	11,800	1,102	12,902	10.2
Caught, crushed, jammed or pinched in between objects	8,919	819	9,738	7.7
Contact with lifting and transmission devices, not elsewhere classified	2,424	165	2,589	2.0
Contact with sharp glass	1,923	532	2,455	1.9
Contact with knife, sword or dagger	5,023	782	5,805	4.6
Contact with non-powered hand tool	2,711	156	2,867	2.3
Contact with powered hand tools and household machinery	7,502	298	7,800	6.1
Contact with agricultural machinery	747	68	815	0.6
Contact with other and unspecified machinery	15,192	970	16,162	12.7
Foreign body entering into or through eye or natural orifice	779	41	820	0.6
Foreign body or object entering through skin	3,957	222	4,179	3.3
Contact with person or persons	372	192	564	0.4
Struck, bitten or crushed by an animal	1,864	1,029	2,893	2.3
Contact with venomous animal or plant	778	108	886	0.7
Exposure to electric current	1,389	210	1,599	1.3
Overexertion and strenuous or repetitive movements	6,674	1,996	8,670	6.8
Exposure to other specified factor	7,068	704	7,772	6.1
Exposure to unspecified factor	31,735	6,695	38,430	30.3
Total	**110,857**	**16,089**	**126,946**	**100**

Note: Exposure to other specified factor includes ICD-10-AM categories W32–W43, W46–W49, W60, W61, W64, W75–W84, W88–X39, X51–X54 and X58.

Activity

For almost two-thirds (65%) of hospitalised injury cases funded by workers' compensation, it was recorded that the injury occurred while the person was working for an income (Table 2.13). Almost 24% of these cases occurred while the person was working in an industrial or construction area and just over 12% occurred while working in a trade or service area.

For almost 1.6% of hospitalised cases funded by workers' compensation, it was recorded that the injury occurred while the person was *engaged in other types of work*. These include cases in which the person was injured while performing domestic duties and other duties for which one would not normally gain an income.

For 1.5% of hospitalised cases, the person was injured while engaging in a sport or a leisure activity which could be undertaken as part of the person's paid work. Almost 45% of persons injured while engaged in sport were injured in a sports and leisure area. In a small proportion of hospitalised injury cases funded by workers' compensation (0.3%), the person was injured *While resting, sleeping, eating or engaging in other vital activities* This could occur, for example, if a person was injured while on a rest break during working hours. For almost 30% of hospitalised injury cases funded by workers' compensation, the activity at the time of injury was unspecified or not recorded.

Table 2.13: Hospitalised injury cases funded by workers' compensation by activity and sex, Australia, 2006–07 to 2013–14

Activity	Males	Females	Persons[(a)]	%
While engaged in sport	1,939	779	2,718	1.4
While engaged in leisure	148	78	226	0.1
While working for income	110,114	18,964	129,078	65.0
While engaged in other types of work	2,571	571	3,142	1.6
While resting, sleeping etc.	322	179	501	0.3
Other specified activity	2,955	918	3,873	2.0
Unspecified activity	36,671	9,742	46,414	23.4
Activity not reported	9,660	2,854	12,514	6.3
Total	**164,380**	**34,085**	**198,466**	**100**

(a) Includes cases that were not specified as male or female.

Industry sector

In almost 11% (13,676) of the hospitalised injury cases funded by workers' compensation and working for income at the time of injury the person was employed in the construction industry, and a further 7% (8,750) were employed in the manufacturing industry (Table 2.14). For almost 42% of these hospitalised cases, the industry sector in which the person was employed in at the time of injury was not specified.

Table 2.14: Hospitalised injury cases funded by workers' compensation and for which it was reported that the injury occurred while working for income, by industry sector and sex, Australia, 2006–07 to 2013–14

Industry sector	Males	Females	Persons	%
Agriculture, forestry and fishing	6,381	994	7,375	5.7
Mining	4,281	166	4,447	3.4
Manufacturing	8,118	632	8,750	6.8
Construction	13,567	109	13,676	10.6
Wholesale and retail trade	3,363	1,409	4,772	3.7
Transport and storage	6,323	260	6,583	5.1
Government administration and defence	768	365	1,133	0.9
Health services	686	1,980	2,666	2.1
Other specified industry sector	20,404	5,173	25,577	19.8
Unspecified industry sector	46,223	7,876	54,099	41.9
Total	**110,114**	**18,964**	**129,078**	**100**

Nature of injury

Over one-quarter (28%) of hospitalised injury cases funded by workers' compensation had a principal diagnosis of a fracture (Table 2.15). Other common types of injury included soft-tissue injury (22%) and open wound (16%). Notes on *Complication of surgical or medical care*, in the sub-section on Major external cause groups, above, also apply to *Complication of medical or surgical care* in Table 2.15.

Table 2.15: Hospitalised injury cases funded by workers' compensation by nature of injury and sex, Australia, 2006–07 to 2013–14

Nature of injury	Males	Females	Persons[(a)]	%
Fracture	43,927	11,021	54,948	27.7
Dislocation	3,103	864	3,967	2.0
Soft-tissue injury	35,175	7,774	42,949	21.6
Open wound	28,615	3,122	31,737	16.0
Intracranial injury	2,914	708	3,622	1.8
Internal organ or vessel	1,316	237	1,553	0.8
Burn	4,213	745	4,958	2.5
Superficial injury	4,221	1,128	5,349	2.7
Poisoning or toxic effect	1,705	446	2,151	1.1
Other specified	23,074	2,798	25,873	13.0
Unspecified	5,403	2,094	7,497	3.8
Sequelae	3	0	3	0.0
Complication of surgical or medical care	10,587	3,049	13,636	6.9
Adverse effects, nec	124	99	223	0.1
Total	**164,380**	**34,085**	**198,466**	**100**

(a) Includes cases that were not specified as male or female.

Bodily location of injury

Over one-third (36%) of hospitalised injury cases funded by workers' compensation had a principal diagnosis indicating an injury to the wrist and hand (Table 2.16). Other common locations of injury included the knee and lower leg (14%), shoulder and upper arm (8%), elbow and forearm (8%) and head (7%).

Table 2.16: Hospitalised injury cases funded by workers' compensation, by bodily location of injury and sex, Australia, 2006–07 to 2013–14

Bodily location of injury	Males	Females	Persons[(a)]	%
Injuries to the head	11,584	2,554	14,138	7.1
Injuries to the neck	2,598	950	3,548	1.8
Injuries to the thorax	4,061	816	4,877	2.5
Injuries to the abdomen, lower back, lumbar spine and pelvis	6,868	2,073	8,941	4.5
Injuries to the shoulder and upper arm	12,659	3,317	15,976	8.0
Injuries to the elbow and forearm	11,308	4,091	15,399	7.8
Injuries to the wrist and hand	64,152	7,134	71,287	35.9
Injuries to the hip and thigh	3,733	1,088	4,821	2.4
Injuries to the knee and lower leg	20,949	5,884	26,833	13.5
Injuries to the ankle and foot	6,541	1,340	7,881	4.0
Other, multiple and incompletely specified	5,627	942	6,569	3.3
Injuries not described in terms of body location	14,300	3,896	18,196	9.2
Total	**164,380**	**34,085**	**198,466**	**100**

(a) Includes cases that were not specified as male or female.

Other diagnosis groups

Of the total of 617,755 hospitalised cases funded by workers' compensation in Australia, 2006–07 to 2013–14 (Table 2.4), the 198,466 cases with a principal diagnosis of injury have been described above. The remaining 419,289 hospitalised cases funded by workers' compensation include some further cases that include ICD-10-AM codes for injury, but only in additional diagnosis fields. They are described briefly here and tabulated in Appendix C: Additional tables, Table C1.

Overall, 38,973 (9%) of the 419,289 cases had been assigned a code from the injury chapter of ICD-10-AM in an additional diagnosis field (Table C1). Assessment of the injury diagnosis codes along with the principal diagnosis and external cause codes for these 38,973 cases suggests that most began with injury, though the current principal diagnosis code is from another chapter of ICD-10-AM. Of the 38,973 cases, 43% have a principal diagnosis code from the ICD-10-AM chapter *Factors influencing health status and contact with health services* of which nearly all (94%) were for *Care involving use of rehabilitation procedures*. Common external causes of these cases were transport events (30%), falls (19%), other unintentional causes (20%) and sequelae of external causes (19%). Another 37% of the 38,973 cases have a principal diagnosis code from the *Diseases of the musculoskeletal system and connective tissue* chapter, of which 64% have an external cause code for Sequelae (late effects) of an external cause of injury and nearly all the rest have a current external cause of injury code. *Diseases of the skin and subcutaneous tissue* (7%) is the next

most frequent type of principal diagnosis among the 38,973 cases, the skin condition being cellulitis in more than half (53%).

2.3 Musculoskeletal system and connective tissue

This section provides a description of hospitalised cases funded by workers' compensation where the principal diagnosis is an ICD-10-AM code in the range M00–M99: *Diseases of the musculoskeletal system and connective tissue.*

Type of disorder

Just over one-quarter (26%, or 60,165) of musculoskeletal and connective tissue-related hospitalised cases funded by workers' compensation were assigned an ICD-10-AM code indicating some form of spinal disorder (dorsopathy) (Table 2.17). Of these cases, almost 57% involved back pain (dorsalgia). Other common disorders involved the knee joint (25%, or 58,608) and shoulder lesions (18%, or 42,507). Over 68% of disorders related to the knee joint involved an internal derangement of the knee, while more than half (53%) of disorders related to shoulder lesions involved rotator cuff syndrome.

Table 2.17: Musculoskeletal and connective tissue--related hospitalised cases funded by workers' compensation, by type of disorder, by sex, Australia, 2006–07 to 2013–14

Type of disorder	Males	Females	Persons(a)	%
Dorsopathies (spinal disorder)	**38,409**	**21,756**	**60,165**	**25.9**
Disc disorders	*12,875*	*5,245*	*18,120*	*30.1*
Dorsalgia (back pain)	*20,406*	*13,658*	*34,064*	*56.6*
Other dorsopathies	*5,128*	*2,853*	*7,981*	*13.3*
Disorders of the knee joint	**43,224**	**15,384**	**58,608**	**25.2**
Arthrosis of knee	*10,648*	*4,600*	*15,248*	*26.0*
Disorders of patella	*1,853*	*1,408*	*3,261*	*5.6*
Derangement of knee	*30,723*	*9,376*	*40,099*	*68.4*
Disorders of other joints	**21,263**	**10,169**	**31,433**	**13.5**
Arthrosis of other joints	*4,690*	*2,158*	*6,849*	*21.8*
Other specific joint derangements	*6,567*	*2,611*	*9,178*	*29.2*
Other joint disorders, not elsewhere classified	*10,006*	*5,400*	*15,406*	*49.0*
Shoulder lesions	**27,196**	**15,311**	**42,507**	**18.3**
Rotator cuff syndrome	*15,793*	*6,585*	*22,378*	*52.6*
Impingement syndrome of shoulder	*6,446*	*4,947*	*11,393*	*26.8*
Other shoulder lesions	*4,957*	*3,779*	*8,736*	*20.6*
Other diseases of musculoskeletal system and connective tissue	**25,382**	**14,135**	**39,517**	**17.0**
Total	**155,474**	**76,755**	**232,230**	**100**

(a) Includes cases that were not specified as male or female.

Mean length of stay

The MLOS for workers' compensation funded hospitalised cases due to musculoskeletal and connective tissue-related disorders was longest for cases involving spinal disorders (2.5 days) and shortest for cases involving shoulder lesions (1.3 days) (Figure 2.4).

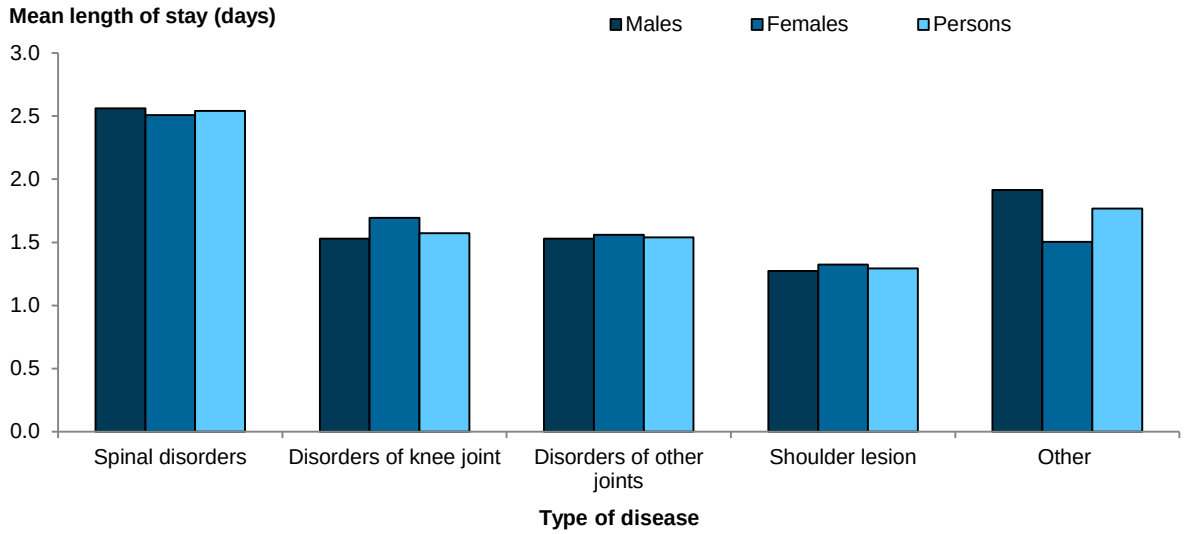


Figure 2.4: Mean length of stay for workers' compensation funded hospitalised cases due to musculoskeletal and connective tissue-related disorders, for selected disorders, by sex, Australia, 2006–07 to 2013–14

2.4 Mental and behavioural disorders

This section provides a description of hospitalised cases funded by workers' compensation where the principal diagnosis is an ICD-10-AM code in the range F00–F99: *Mental and behavioural disorders.*

Just over 44% (15,207) of mental and behavioural disorder-related hospitalised cases funded by workers' compensation were assigned an ICD-10-AM code indicating a reaction to severe stress or other adjustment disorder (Table 2.18). Of these cases, over 88% (13,442) involved post-traumatic stress disorder. Other common disorders included depressive episodes (27%) and recurrent depressive disorders (15%).

Table 2.18: Mental and behavioural disorder-related hospitalised cases funded by workers' compensation, by type of medical condition, by sex, Australia, 2006–07 to 2013–14

Type of disorder	Males	Females	Persons	%
Depressive episode (F32)	**4,628**	**4,491**	**9,119**	**26.5**
Severe depressive episode without psychotic symptoms (F32.2)	*3,188*	*2,957*	*6,145*	*67.4*
Recurrent depressive disorder (F33)	**1,906**	**3,180**	**5,086**	**14.8**
Other anxiety disorders (F41)	**764**	**1,050**	**1,814**	**5.3**
Reaction to severe stress, and other adjustment disorders (F43)	**10,572**	**4,635**	**15,207**	**44.2**
Post-traumatic stress disorder (F43.1)	*9,773*	*3,669*	*13,442*	*88.4*
Other mental and behavioural disorders	**1,464**	**1,694**	**3,158**	**9.2**
Total	**19,334**	**15,050**	**34,384**	**100**

2.5 Nervous system

This section provides a description of hospitalised cases funded by workers' compensation where the principal diagnosis in the hospital record is an ICD-10-AM code in the range G00–G99: *Diseases of the nervous system.*

Just under 72% (18,761) of these cases were assigned an ICD-10-AM code indicating some form of mononeuropathy of the upper limb (Table 2.19). Of these cases, over 86% (16,207) involved carpal tunnel syndrome.

Table 2.19: Nervous system-related hospitalised cases funded by workers' compensation, by type of disease, by sex, Australia, 2006–07 to 2013–14

Type of disease	Males	Females	Persons	%
Mononeuropathies of the upper limb (G56)	**9,750**	**9,011**	**18,761**	**71.9**
Carpal tunnel syndrome (G56.0)	*8,039*	*8,168*	*16,207*	*86.4*
Other mononeuropathies (G58)	**1,564**	**1,876**	**3,440**	**13.2**
Other diseases of the nervous system	**2,628**	**1,249**	**3,877**	**14.9**
Total	**13,942**	**12,136**	**26,078**	**100**

2.6 Factors influencing health status and contact with health services

This section provides a description of hospitalised cases funded by workers' compensation where the principal diagnosis is an ICD-10-AM code in the range Z00–Z99: *Factors influencing health status and contact with health services.* Codes in this range are provided for occasions when circumstances other than a disease, injury or external cause are recorded as 'diagnoses' or 'problems'. This can arise in 2 main ways: (1) when a person (who may or may not be sick) encounters a health service for a purpose, such as examination or investigation, prophylaxis (such as immunisation), surgical follow-up care or rehabilitation procedures; or (2) when a circumstance or problem is present which influences the person's health but is not in itself a current illness or injury.

Type of contact with hospital

Of these contacts, 63% (40,983) involved use of rehabilitation procedures, while a further 24% (15,633) involved orthopaedic follow-up care (Table 2.20). For cases involving orthopaedic follow-up care, 95% (14,886) involved removal of a fracture plate or other internal fixation device.

Table 2.20: Hospitalised cases funded by workers' compensation, by type of contact with health services, by sex, Australia, 2006–07 to 2013–14

Type of contact with health service	Males	Females	Persons	%
Care involving use of rehabilitation procedures (Z50)	25,236	15,747	40,983	63.0
Other orthopaedic follow-up care (Z47)	11,656	3,977	15,633	24.0
Adjustment and management of drug delivery or implanted device (Z45)	1,489	927	2,416	3.7
Other medical care (Z51)	965	197	1,162	1.8
Care involving dialysis (Z49)	796	46	842	1.3
Follow-up care involving plastic surgery (Z42)	724	113	837	1.3
Other surgical follow-up care (Z48)	664	170	834	1.3
Fitting and adjusting other devices (Z46)	353	146	499	0.8
Other services	1,227	654	1,881	2.9
Total	**43,110**	**21,977**	**65,087**	**100**

Additional diagnosis codes provide an indication of the nature of the injury or disease that underlay the requirement for the care summarised in Table. Of the cases included in Table 2.20, 70% have at least one additional diagnosis code. Considering those that do, the first additional diagnosis code was a musculoskeletal condition in 41%, an injury in 28% and another code from the *Factors influencing health status and contact with health services* chapter in 19%, most commonly Z72.0 *Tobacco use, current* (3,661 cases).

2.7 Digestive system

This section provides a description of hospitalised cases funded by workers' compensation where the principal diagnosis in the hospital record is an ICD-10-AM code in the range K00–K93: *Diseases of the digestive system.*

Just over 88% (18,761) of these cases were assigned a principal diagnosis indicating some form of hernia (Table 2.21). Of these cases, almost three-quarters (74%) involved an inguinal hernia.

Table 2.21: Digestive system-related hospitalised cases funded by workers' compensation group, by type of disease, by sex, Australia, 2006–07 to 2013–14

Type of disease	Males	Females	Persons	%
Hernia	26,259	1,406	27,665	88.3
Inguinal hernia	*19,934*	*619*	*20,553*	*74.3*
Umbilical hernia	*3,446*	*174*	*3,620*	*13.1*
Ventral hernia	*2,555*	*455*	*3,010*	*10.9*
Diseases of oral cavity, salivary glands and jaws	994	371	1365	4.4
Diseases of oesophagus, stomach and duodenum	477	313	790	2.5
Other diseases of the intestine	526	240	766	2.4
Other diseases of the digestive system	531	212	743	2.4
Total	**28,787**	**2,542**	**31,329**	**100**

2.8 Comparison with serious claims data

This section provides a brief comparison between data in this report on admitted patient cases funded by workers' compensation and data published in a 2014 report by SWA entitled *Australian workers' compensation statistics 2012–13* (SWA 2014).

The SWA report does not specify which cases involved care as admitted hospital patients. It does, however, provide data on workers' compensation cases generally and on the subset of cases that met a definition of being claims for 'serious injury'.

Serious injury cases are defined in the SWA report as workers' compensation claims for an incapacity that results in a total absence from work of 1 working week or more, lodged in the reference year, and accepted for compensation by the jurisdiction by the date the data are extracted for publication.

This section compares serious injury cases as reported by SWA with admitted cases funded by workers' compensation. It can be anticipated that there is some overlap between these two types of case.

Overview

There were more workers' compensation claims for serious injury than hospitalised cases funded by workers' compensation for each of the years from 2006–07 to 2012–13 (Figure 2.5). The number of hospitalised cases funded by workers' compensation as a percentage of workers' compensation serious injury claims increased over the period covered by this report, from 55% in 2006–07 to 68% in 2012–13.

It should be remembered that the number of hospitalisations includes some multiple counting of cases, and so is an overestimate (see Data issues).

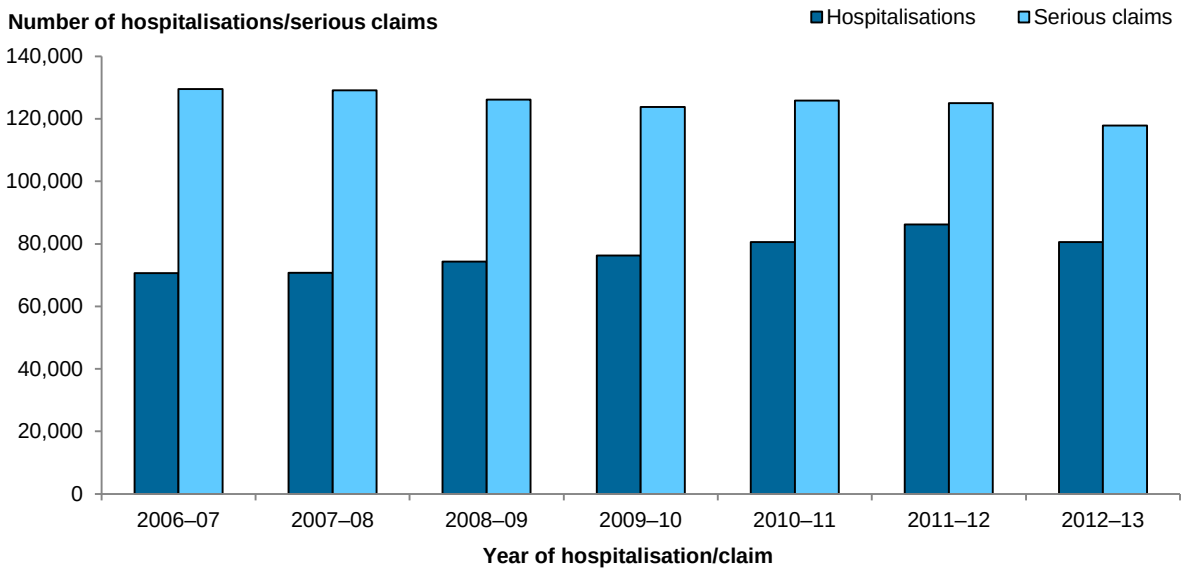


Figure 2.5: Number of hospitalised cases funded by workers' compensation and workers' compensation claims for serious injury, by year, Australia, 2006–07 to 2012–13

The percentage of male cases was higher for hospitalised cases funded by workers' compensation than for workers' compensation serious injury claims (Figure 2.6). For both sets of cases, the percentage of male cases fell slightly over the period from 2006–07 to 2012–13, from 74% to 72% for hospitalised cases and from 67% to 63% for serious claims.

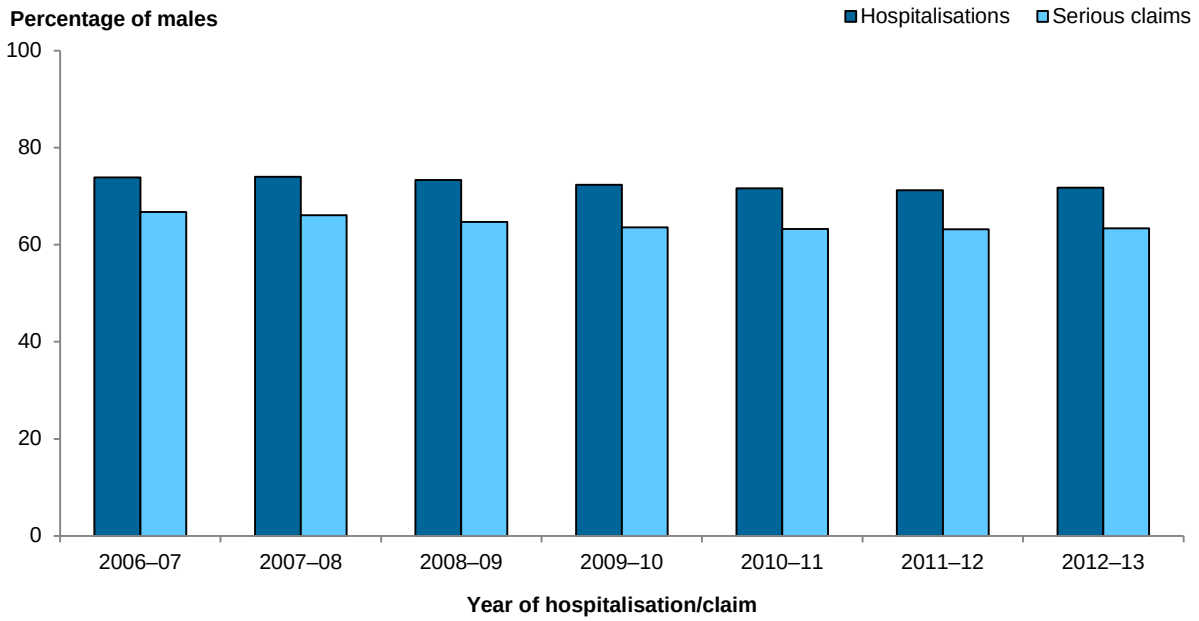


Figure 2.6: Percentage of males for hospitalised cases funded by workers' compensation and for workers' compensation serious injury claims, by year, Australia, 2006–07 to 2012–13

Age profile

The age profile for both hospitalised cases funded by workers' compensation and for serious workers' compensation claims were broadly similar (Figure 2.7). The percentage of cases was higher for serious workers' compensation claims in the younger age groups (up to 40 years of age) and higher in hospitalised cases funded by workers' compensation for persons aged 45 and over.

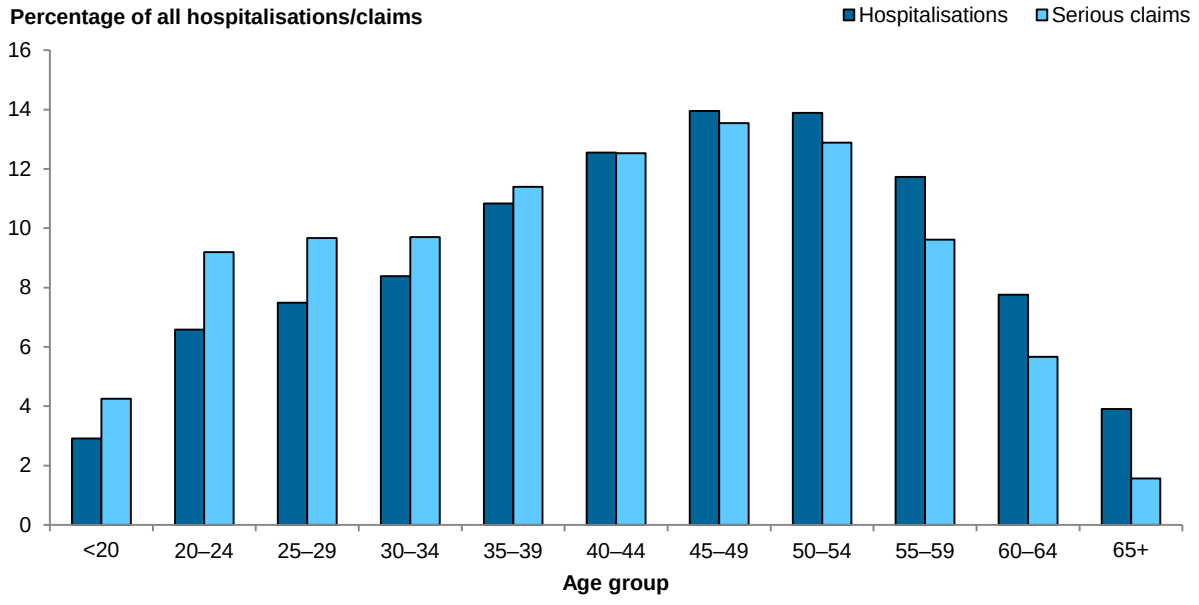


Figure 2.7: Percentage of hospitalised cases funded by workers' compensation and serious workers' compensation claims, by age group, Australia, 2007–08 to 2012–13

Injury and other diseases

In the SWA report, the workers' compensation serious injury claims reported as being either the result of injury or due to a musculoskeletal disorder were presented as a combined total. For 2012–13, 90% of all serious injury cases included in the SWA report were for injury or musculoskeletal disorders (males 91%, females 88%) (Table 2.22). In comparison, the percentage of hospitalised cases funded by workers' compensation that were assigned a principal diagnosis indicating an injury or musculoskeletal disorder was 68% (males 70%, females 63%).

While there is reason to expect broad similarity between the sources in this respect, there is not a reason to expect the proportions to be the same. That is chiefly because the inclusion criteria for the sources are not identical ('serious' compensated conditions for the SWA report, and admitted compensated cases for this report). It is also likely that some admitted cases that would be included as injury or musculoskeletal in the SWA report have a principal diagnosis code from the *Factors influencing health status and contact with health services* chapter of ICD-10-AM. The probable over-counting of hospitalised cases due to readmissions might also contribute to the difference.

The combined percentage of workers' compensation funded hospitalised injury and musculoskeletal cases as a total of all hospitalised cases funded by workers' compensation is shown for the period from 2006–07 to 2013–14 in Appendix C: Additional tables (Table C2).

Table 2.22: Number of workers' compensation funded hospitalised cases and serious injury claims, by injury and musculoskeletal disorders and other diseases, by sex, Australia, 2012–13

	Hospitalised cases	Serious injury claims
Males		
Injury and musculoskeletal disorders	40,187	68,035
Other diseases	17,675	6,670
Total	57,862	74,705
Injury and musculoskeletal (% of cases)	69.5	91.1
Females		
Injury and musculoskeletal disorders	14,373	37,770
Other diseases	8,350	5,345
Total	22,723	43,115
Injury and musculoskeletal (% of cases)	63.3	87.6
Persons		
Injury and musculoskeletal disorders	54,560	105,800
Other diseases	26,025	12,015
Total	80,585	117,815
Injury and musculoskeletal (% of cases)	67.7	89.8

3 Work-related hospitalised injury

This chapter provides a description of hospitalised cases for the period from 2006–07 to 2013–14 where the NHMD record indicated the person was working for income. The focus here is on injury cases for which the funding source for hospital care was not workers' compensation insurance, as the injury cases that were funded by workers' compensation insurance are described in Chapter 2. Comparisons between cases funded by workers' compensation and cases funded through other sources are described where noteworthy differences between the 2 data sets were observed.

'Injury' is defined here as cases coded to the ICD-10-AM range S00–T75, T79, which is the definition commonly used in AIHW publications. Most attention is given to cases in which injury was the principal diagnosis, with lesser attention to cases for which injury was recorded only as an additional diagnosis, or where an injury code was not present in any diagnosis field.

The basis used to identify cases in which the person was working for income when an injurious event occurred is the presence of the ICD-10-AM Activity code that means 'while working for income'. Ideally, every case eligible (according to ICD-10-AM rules) to be assigned an Activity code would be assigned the specific code that is most correct given the circumstances of the case. In practice, many eligible cases have a non-specific code, which means unspecified activity. It is very likely that in some of these cases the person will, in fact, have been working for income.

The injury cases that were funded by workers' compensation provide a basis for assessing this data limitation. All such cases were eligible for an Activity code and they can be expected to have occurred while the person was working for income. Of such cases, almost 70% have been assigned the Activity code 'while working for income' but another 25% were assigned 'Unspecified activity'. The incompleteness of activity coding of work-related cases that is indicated by this should be kept in mind when considering the findings presented in this section.

3.1 Overview

Of all hospitalised cases in which the person's activity when injured was recorded as 'working for income', 61% (143,104) were funded by workers' compensation (Table 3.1).

The proportion funded by workers' compensation was slightly higher (62%) for the large majority of the cases in which the principal diagnosis was a condition conventionally reported as injury (ICD-10-AM codes S00–T75 or T79). The proportion funded by workers' compensation was lower (50%) for the much smaller sub-set of the 'working for income' cases in which an injury condition only appeared as an additional diagnosis.

The last and smallest sub-set of the 'working for income' cases had no injury condition coded. The proportion funded by workers' compensation was nearly 60%.

These three sets of cases are described in Sections 3.2 to 3.4.

Table 3.1: Work-related hospitalised cases funded by workers' compensation and total work-related hospitalised cases, by sex, Australia, 2006–07 to 2013–14

	Workers' compensation			Total			Workers' compensation
Diagnosis range	**Males**	**Females**	**Persons**	**Males**	**Females**	**Persons[c]**	**%**
Principal diagnosis = Injury	109,873	18,898	128,771	176,439	30,822	207,262	62.1
Additional diagnosis = Injury[a]	6,736	2,391	9,127	13,466	4,673	18,139	50.3
Other[b]	3,899	1,307	5,206	6,147	2,556	8,703	59.8
Total	**120,508**	**22,596**	**143,104**	**196,052**	**38,051**	**234,104**	**61.1**

Notes

(a) Excludes cases for which principal diagnosis is in the injury range.

(b) Includes cases for which no diagnosis code in the hospital record is in the injury range.

(c) Includes cases that were not specified as male or female.

3.2 Principal diagnosis of injury

This section provides a description of the hospitalised cases in the period from 2006–07 to 2013–14 where the activity code indicated that harm occurred while the person was working for income and the principal diagnosis was an injury. The focus here is on cases that were not funded by workers' compensation, as similar cases that were funded by workers' compensation have been described in Section 2.2.

The section describes the cases in terms of age and sex, external causes of injury remoteness and socio-economic status of place of usual residence, the industry sector in which they were working and the type of place at which they were located when injured, the nature and bodily location of injury, source of funding for the episodes in hospital and whether the hospital was public or private.

Age and sex

A total of 78,491 work-related hospitalised injury cases were funded by sources other than workers' compensation in Australia in the period from 2006–07 to 2013–14 (Table 3.2). Of these cases, just over 85% (66,566) were male and 93% (73,353) were aged 15–64. A small proportion of hospitalised injury cases reported as working for income were young children. It is not clear whether this is due to reporting errors or unusual circumstances.

The last column in Table 3.2 shows that, of all cases in which the principal diagnosis is injury and the activity code indicates that the person was working for income when injury occurred, 38% were not funded by workers' compensation. Equivalent percentages were around 30% to 40% for persons aged 15–64 and much higher than that for the small proportion of cases outside this age range.

Table 3.2: Work-related hospitalised injury cases funded by sources other than workers' compensation, by age group, by sex, Australia, 2006–07 to 2013–14

Age group	Males	Females	Persons[(a)]	%	% not funded by workers' compensation
0–4	9	15	24	0.0	100
5–9	20	11	31	0.0	100
10–14	123	38	161	0.2	81.3
15–19	3,721	815	4,536	5.8	32.5
20–24	7,418	1,374	8,792	11.2	33.2
25–29	7,478	1,144	8,622	11.0	35.2
30–34	6,879	918	7,798	9.9	36.5
35–39	7,090	1,009	8,099	10.3	37.4
40–44	7,121	1,096	8,217	10.5	37.7
45–49	6,936	1,226	8,162	10.4	37.5
50–54	6,431	1,390	7,821	10.0	38.4
55–59	5,171	1,288	6,459	8.2	39.1
60–64	4,070	777	4,847	6.2	42.8
65–69	2,155	364	2,519	3.2	57.0
70–74	1,001	173	1,174	1.5	77.7
75–79	527	100	627	0.8	88.1
80–84	268	85	353	0.4	93.6
85+	148	101	249	0.3	98.0
Total	**66,566**	**11,924**	**78,491**	**100**	**37.9**

(a) Includes cases that were not specified as male or female.

Major external cause groups

The work-related related hospitalised injury cases funded by sources other than workers' compensation were tabulated by major type of external cause (Table 3.3).

Nearly two-thirds of the cases are in a diverse group of 'Other unintentional' causes, which is described further later in this section (Table 3.8 and related text). Two specific types of external causes account for nearly all the rest of the cases, Transport crashes (12.7%) and Falls (18.3%). These types are also described further in this section.

The last column in Table 3.3 shows, for each of the tabulated types of external cause, the proportion of the injury cases that were funded by a source other than workers' compensation. The proportions ranged from 34.9% for the large 'Other unintentional' group to 96.5% for the very small group of cases due to intentional self-harm.

Other external cause types for which a high proportion of hospitalised injury cases were funded by a source other than workers' compensation were drowning (76%) and poisoning involving pharmaceuticals (69%).

Table 3.3: Work-related hospitalised injury cases funded by sources other than workers' compensation, by major external cause group, by sex, Australia, 2006–07 to 2013–14

Major external cause group	Males	Females	Persons[(a)]	%	% not funded by workers' compensation
Transport crashes	8,310	1,697	10,007	12.7	50.6
Drowning	17	2	19	0.0	76.0
Poisoning, pharmaceuticals	74	60	134	0.2	68.7
Poisoning, other substances	925	225	1,150	1.5	39.1
Falls	10,744	3,626	14,370	18.3	40.4
Thermal	1,148	298	1,446	1.8	36.9
Other unintentional	43,417	5,576	48,994	62.4	34.9
Intentional, self-inflicted	73	94	167	0.2	96.5
Intentional, inflicted by another	1,527	261	1,788	2.3	52.4
Undetermined intent	298	74	372	0.5	46.8
Medical misadventure, complications, etc.	11	2	13	0.0	59.1
Sequelae of external causes	6	4	10	0.0	41.7
No external cause code	16	5	21	0.0	39.1
Total	**66,566**	**11,924**	**78,491**	**100**	**37.9**

(a) Includes cases that were not specified as male or female.

Transport crashes

Almost one-fifth (20%, or 1,994) of work-related hospitalised injury cases involving a transport crash, funded by sources other than workers' compensation, were occupants of a car (Table 3.4). Other common modes of transport were motorcycle riders (18%), occupants of a *Heavy transport vehicle* (15%) and animal riders or occupants of an *Animal-drawn vehicle* (10%).

The last column in Table 3.4 shows, for each of the tabulated modes of transport, the proportion of the cases of injury while working that were funded by a source other than workers' compensation. Overall, close to half of the transport crash injury cases were not funded by workers' compensation. The modes of transport where the person's episode of care in hospital was least likely to be funded by workers' compensation included special all-terrain and off-road vehicles, special agricultural vehicles, watercraft and aircraft.

Table 3.4: Work-related hospitalised injury cases involving a transport crash and funded by sources other than workers' compensation, by mode of transport, by sex, Australia, 2006–07 to 2013–14

Mode of transport	Males	Females	Persons	%	% not funded by workers' compensation
Car	1,305	689	1,994	19.9	59.3
Motorcycle	1,642	142	1,784	17.8	55.8
Pedal cycle	453	101	554	5.5	58.3
Pedestrian	391	104	495	4.9	38.5
Animal or animal-drawn vehicle	646	349	995	9.9	43.9
Heavy transport vehicle	1,510	40	1,550	15.5	44.8
Pick-up truck or van	263	23	286	2.9	50.6
Special all-terrain or off-road vehicle	444	81	525	5.2	70.9
Bus	55	28	83	0.8	49.7
Special agricultural vehicle	493	44	537	5.4	66.8
Railway train or railway vehicle	12	9	21	0.2	26.6
Special industrial vehicle	231	23	254	2.5	26.1
Three-wheeled motor vehicle	7	2	9	0.1	60.0
Tram	3	3	6	0.1	60.0
Special construction vehicle	110	5	115	1.1	31.9
Watercraft	386	31	417	4.2	61.1
Aircraft	132	6	138	1.4	62.4
Not reported	227	17	244	2.4	38.1
Total	**8,310**	**1,697**	**10,007**	**100**	**50.6**

Transport crash injury cases not funded by workers' compensation

The remainder of this section is about the work-related transport injury cases where the stay in hospital was not funded by workers' compensation. (Transport-related cases funded by workers' compensation are described in tables 2.8 to 2.10 and related text.)

Whether transport crashes occurred on-road

Over half (58%, or 4,723) of work-related hospitalised injury cases involving unintentional land transport crashes, funded by sources other than workers' compensation occurred on-road (Table 3.5). The highest proportions of injuries occurring in on-road settings were seen for car occupants (90%), pedal cyclists (84%), bus occupants (76%) and occupants of heavy transport vehicles (70%). In contrast, the highest proportions of injuries occurring in off-road settings were seen for occupants of special all-terrain or off-road vehicles (95%), and occupants of special agricultural, industrial or construction vehicles where proportions were around 78% or higher.

Table 3.5: Work-related hospitalised injury cases involving unintentional land transport crashes and funded by sources other than workers' compensation, by setting, Australia, 2006–07 to 2013–14

Injured person's mode of transport	Setting					
	On-road	Off-road	Unspecified	Total	On-road %	Off-road %
Car	1,786	168	40	1,994	89.6	8.4
Motorcycle	847	898	39	1,784	47.5	50.3
Pedal cycle	468	83	3	554	84.5	15.0
Pedestrian	233	222	40	495	47.1	44.8
Heavy transport vehicle	1,086	310	154	1,550	70.1	20.0
Pick-up truck or van	172	83	31	286	60.1	29.0
Special all-terrain or off-road vehicle	21	501	3	525	4.0	95.4
Bus	63	9	11	83	75.9	10.8
Special agricultural vehicle	21	479	37	537	3.9	89.2
Railway train or railway vehicle	1	0	20	21	4.8	0.0
Special industrial vehicle	12	224	18	254	4.7	88.2
Three-wheeled motor vehicle	1	8	0	9	11.1	88.9
Tram	2	0	4	6	33.3	0.0
Special construction vehicle	10	96	9	115	8.7	83.5
Unknown	75	50	20	145	51.7	34.5
Total (Land transport)[(a)]	**4,798**	**3,131**	**429**	**8,358**	**57.4**	**37.5**

(a) Excludes animal rider or occupant of animal-drawn vehicle as setting for these cases is not specified.

Occupant type

Over three-quarters (76%, or 5,397) of people in work-related hospitalised injury cases involving a motor vehicle in a land transport crash, funded by sources other than workers' compensation, were driving when the injury was sustained (Table 3.6). The modes of transport with the highest proportions of driver cases were special all-terrain or off-road vehicles (90%), cars (82%) and motorcycles (82%), while the mode of transport with the lowest proportion of drivers was special industrial vehicles (49%).

Table 3.6: Work-related hospitalised injury cases involving a motor vehicle in a land transport crash and funded by sources other than workers' compensation, by occupant type, Australia, 2006–07 to 2013–14

	Occupant type						
Injured person's mode of transport	Driver	Passenger	On outside	Boarding/ alighting	Unspecified	Total	Driver %
Car	1,644	184	41	32	93	1,994	82.4
Motorcycle	1,461	25	0	10	288	1,784	81.9
Heavy transport vehicle	1,078	68	156	98	150	1,550	69.5
Pick-up truck or van	163	32	32	15	44	286	57.0
Special all-terrain or off-road vehicle	473	15	10	3	24	525	90.1
Bus	54	12	0	10	7	83	65.1
Special agricultural vehicle	323	14	127	37	36	537	60.1
Special industrial vehicle	125	5	87	18	19	254	49.2
Three-wheeled motor vehicle	7	0	1	0	1	9	77.8
Special construction vehicle	69	2	27	9	8	115	60.0
Total (Motor vehicles)[(a)]	**5,397**	**357**	**481**	**232**	**670**	**7,137**	**75.6**

(a) Excludes occupants of railway trains or vehicles (n=21) and trams (n=6) since it is not possible to distinguish between drivers and passengers for these modes of transport in the data available.

Falls

This section is about the work-related fall injury cases where the stay in hospital was not funded by workers' compensation. (Fall-related cases funded by workers' compensation are described in Table 2.11.)

Almost one-quarter (23%, or 3,361) of people in work-related hospitalised injury cases involving a fall, funded by sources other than workers' compensation, were injured by slipping, tripping or stumbling on a level surface (Table 3.7). Other common types of falls involved falling on or from a ladder (18%) and falling from, out of or through a building or structure (12%).

Table 3.7: Work-related hospitalised injury cases involving a fall and funded by sources other than workers' compensation, by type of fall, by sex, Australia, 2006–07 to 2013–14

Type of fall	Males	Females	Persons	%
Same level involving ice and snow	5	2	7	0.0
Same level from slipping, tripping and stumbling	1,752	1,609	3,361	23.4
Roller skates, skateboards, scooters and other pedestrian conveyances	27	14	41	0.3
Same level due to contact with another person	36	19	55	0.4
Carried or supported by other persons	5	3	8	0.1
Involving wheelchair	2	9	11	0.1
Involving bed	1	5	6	0.0
Involving chair	87	114	201	1.4
Involving other furniture	16	15	31	0.2
Involving playground equipment	7	8	15	0.1
On or from steps and stairs	491	469	960	6.7
On or from ladder	2,370	146	2,516	17.5
On or from scaffolding	577	2	579	4.0
From, out of or through building or structure	1,680	45	1,725	12.0
From tree	123	4	127	0.9
From cliff	55	3	58	0.4
Diving or jumping into water	19	4	23	0.2
Other fall from one level to another	1,694	165	1,859	12.9
Other fall on same level	770	455	1,225	8.5
Unspecified fall	1,027	535	1,562	10.9
Total	**10,744**	**3,626**	**14,370**	**100**

Other unintentional causes

This section is about the work-related injury cases in the large *Other unintentional* group where the stay in hospital was not funded by workers' compensation. (Cases with *Other unintentional* causes that were funded by workers' compensation are described in Table 2.12.)

Almost 24% (11,660) of work-related hospitalised injury cases involving *Other unintentional* external causes, funded by sources other than workers' compensation, involved contact with powered hand tools or various types of machinery (Table 3.8). Grinders, saws and nail guns were the tools mentioned most commonly in cases due to *Contact with powered hand tools and household machinery*. Almost half (44%) of cases in the group *Contact with other and unspecified machinery* (W31) involved contact with metalworking machinery or with woodworking and forming machinery (data not shown).

Overexertion and strenuous and repetitive movements accounted for a further 8% (4,062) of all cases in this group. Of the 3,011 cases where the person was hospitalised due to being *Struck, bitten or crushed by an animal*, 41% involved cattle, 19% involved horses and 12% involved snakes that were non-venomous, or where venomousness was not known. *Contact with venomous animal or plant* most often involved spiders (28%), snakes (25%) and bees (23%).

Table 3.8: Work-related hospitalised injury cases involving *Other unintentional* causes and funded by sources other than workers' compensation, by sex, Australia, 2006–07 to 2013–14

External cause	Males	Females	Persons[(b)]	Other unintentional cases % (48,994)
Struck by or striking against objects	5,552	679	6,231	12.7
Caught, crushed, jammed or pinched in between objects	2,882	313	3,195	6.5
Contact with lifting and transmission devices, not elsewhere classified	827	39	866	1.8
Contact with sharp glass	944	233	1,177	2.4
Contact with knife, sword or dagger	2,190	317	2,507	5.1
Contact with non-powered hand tool	1,341	88	1,429	2.9
Contact with powered hand tools and household machinery	4,287	139	4,426	9.0
Contact with agricultural machinery	940	58	998	2.0
Contact with other and unspecified machinery	5,913	322	6,236	12.7
Foreign body entering into or through eye or natural orifice	1,084	60	1,144	2.3
Foreign body or object entering through skin	2,186	125	2,311	4.7
Contact with person or persons	196	97	293	0.6
Struck, bitten or crushed by an animal	2,247	764	3,011	6.1
Contact with venomous animal or plant	823	133	956	2.0
Exposure to electric current	654	102	756	1.5
Overexertion and strenuous or repetitive movements	3,096	966	4,062	8.3
Exposure to other specified factor[(a)]	4,009	404	4,413	9.0
Exposure to unspecified factor	4,246	737	4,983	10.2
Total	**43,417**	**5,576**	**48,994**	**100**

(a) *Exposure to other specified factor* includes the ICD-10-AM categories in the ranges W32–W43, W46–W64, W75–W84, W88–W99, X20–X39 and X51–X58.

(b) Includes cases that were not specified as male or female.

Remoteness area of residence

Almost 57% (44,525) of the work-related hospitalised injury cases funded by sources other than workers' compensation involved people who resided in *Major cities* (Table 3.9). Almost 37% of the cases resided in *Inner regional* and *Outer regional* areas while about 5% resided in *Remote* and *Very remote* areas. Age-standardised rates of hospitalised cases increased with the degree of remoteness. The rate for residents of the *Very remote* area (91 per 100,000 population) was more than 2.5 times as high as the rate for residents of *Major cities*.

Table 3.9: Work-related hospitalised injury cases funded by sources other than workers' compensation, by remoteness area of residence, by sex, Australia, 2006–07 to 2013–14

Remoteness area of residence	Males	Females	Persons[(a)]	%	Rate[(b)]
Major cities	37,526	6,998	44,525	56.7	35.6
Inner regional	14,976	2,622	17,598	22.4	54.6
Outer regional	9,873	1,529	11,402	14.5	72.3
Remote	1,870	325	2,195	2.8	85.7
Very remote	1,133	229	1,362	1.7	90.7
Not reported	1,188	221	1,409	1.8	..
Total	**66,566**	**11,924**	**78,491**	**100**	**44.2**

(a) Includes cases that were not specified as male or female.

(b) Rate = age-standardised rate per 100,000 population.

Socioeconomic status

By definition, 20% of the Australian population is in each of the socioeconomic status (SES) groups shown in Table 3.10. However, only 13.4% of hospitalised injury cases funded by sources other than workers' compensation were for people in the least disadvantaged fifth of the population. More than 20% of cases were for people in each of the 3 most disadvantaged fifths of the population. This is similar to the workers' compensation cases (Table 2.3).

Table 3.10: Work-related hospitalised injury cases funded by sources other than workers' compensation, by fifths of the population according to socioeconomic status, by sex, Australia, 2006–07 to 2013–14

SEIFA fifths of the population	Males	Females	Persons	%
Most disadvantaged	15,701	2,532	18,234	23.2
Second most disadvantaged	14,779	2,534	17,313	22.1
Middle	14,064	2,591	16,655	21.2
Second least disadvantaged	12,118	2,239	14,357	18.3
Least disadvantaged	8,715	1,805	10,520	13.4
Not reported	1,189	223	1,412	1.8
Total	**66,566**	**11,924**	**78,491**	**100**

Notes

1. SEIFA group allocation for cases in 2006–07 to 2011–12 was based on the Australian Standard Geographic Classification (ASGC), while allocation for cases in 2012–13 and 2013–14 was based on the Australian Standard Geographical System (ASGS).

2. Persons includes cases that were not specified as male or female.

Industry sector

The ICD-10-AM classification allows records that are coded to activity *While working for income* to be further coded to show the broad type of industry in which the person was working when injured. Industry sector is not reported in Chapter 2 because information on industry can only be coded for the minority of workers' compensation cases that have the Activity code value meaning *While working for income.* All cases with that activity code are summarised here, according to whether or not hospital care was funded by workers' compensation (Table 3.11).

Construction is the industry sector with the largest number of hospitalised work related cases among cases funded by workers' compensation (13,648, 10.6%) and the second largest number among cases funded by other sources (10,472, 13.3%) (Table 3.11). The *Agriculture, forestry and fishing* sector had the largest number of cases among those funded by sources other than workers' compensation (11,939, 15.2%), but was less prominent among cases funded by workers' compensation (7,351, 5.5%)

The number of cases shown in Table 3.11 in each industry is likely to be an underestimate of the true number of cases, for the following reasons. As shown in the table, many of the injury cases recorded as having occurred *While working for income* have unspecified industry (42% of the cases funded by workers' compensation and 34% of the cases funded by other sources). Also, application of Activity codes is incomplete, and some of the injury cases lacking an Activity code will have been injured *While working for income* (see the introduction to Chapter 3).

Table 3.11: Work-related hospitalised injury cases, by whether or not funded by workers compensation, industry sector, and sex, Australia, 2006–07 to 2013–14

Industry sector	Males	Females	Persons[(a)]	%
Funded by workers' compensation				
Agriculture, forestry and fishing	6,362	989	7,351	5.7
Mining	4,271	166	4,437	3.4
Manufacturing	8,088	630	8,718	6.8
Construction	13,539	109	13,648	10.6
Wholesale and retail trade	3,357	1,403	4,760	3.7
Transport and storage	6,308	260	6,568	5.1
Government administration and defence	766	364	1,130	0.9
Health services	684	1,962	2,646	2.1
Other specified work	20,359	5,152	25,511	19.8
Unspecified	46,137	7,862	53,999	41.9
Total	**109,873**	**18,898**	**128,771**	**100**
Funded by sources other than workers' compensation				
Agriculture, forestry and fishing	10,346	1,593	11,939	15.2
Mining	1,138	82	1,220	1.6
Manufacturing	2,615	202	2,817	3.6
Construction	10,377	94	10,472	13.3
Wholesale and retail trade	1,822	868	2,690	3.4
Transport and storage	3,892	163	4,055	5.2
Government administration and defence	1,111	243	1,354	1.7
Health services	406	1,141	1,547	2.0
Other specified work	12,343	3,323	15,666	20.0
Unspecified	22,513	4,213	26,726	34.0
Total	**66,566**	**11,924**	**78,491**	**100**

(a) Includes cases that were not specified as male or female.

The percentage of work-related hospitalised injury cases reported to have been funded by workers' compensation was highest for persons working in the *Mining* industry (78%) followed closely by those working in the *Manufacturing* industry (76%) (Figure 3.1). The lowest percentage was for those working in *Agricultural, forestry and fishing* industries (38%).

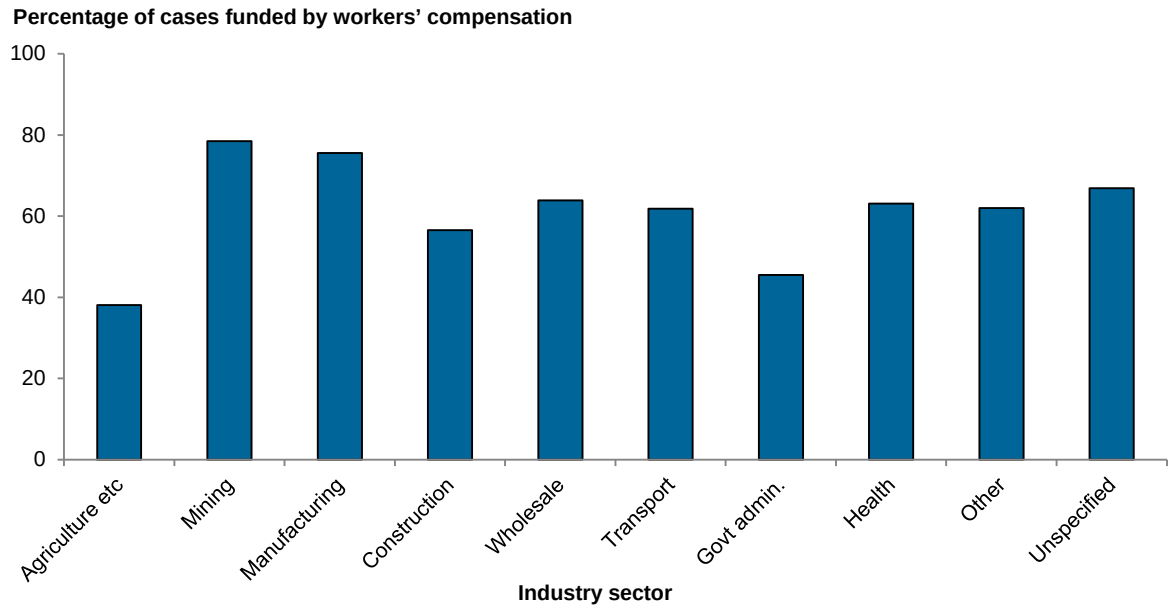


Figure 3.1: Percentage of work-related hospitalised injury cases funded by workers' compensation, by industry sector, Australia, 2006–07 to 2013–14

Place of occurrence

Almost 16% (12,296) of work-related hospitalised injury cases, funded by sources other than workers' compensation, occurred in an industrial or construction area (Table 3.12). Of these cases, around one-third (33%) occurred in a construction area and 28% were in a factory or plant. Other common places of occurrence for injury include a farm (12%), a trade or service area (12%), and a street or highway (7%). Of the cases where injury occurred in a trade or service area, just over one-quarter (27%) took place in a café, hotel or restaurant, while one-quarter (25%) took place in a shop or store.

As with industry sector, the number of cases shown to have happened in each place of occurrence is likely to be an underestimate of the true number of cases, due to the significant proportion of cases for which the place of occurrence at the time the injury was sustained was unspecified (41%, or 32,139).

Table 3.12: Work-related hospitalised injury cases funded by sources other than workers' compensation, by place of occurrence, by sex, Australia, 2006–07 to 2013–14

Place of occurrence	Males	Females	Persons[(a)]	%
Home	1,908	440	2,348	3.0
Residential institution	236	283	519	0.7
School	297	439	736	0.9
Health Service area	300	704	1,004	1.3
Other specified institution	175	128	303	0.4
Sports and athletics	610	219	829	1.1
Street and highway	4,534	1,124	5,658	7.2
Trade and service area	6,740	2,321	9,061	11.5
Industrial and construction area	11,814	481	12,296	15.7
Farm	8,116	1,368	9,484	12.1
Other specified place	3,469	612	4,081	5.2
Unspecified place of occurrence	28,338	3,801	32,139	40.9
Not reported	29	4	33	0.0
Total	**66,566**	**11,924**	**78,491**	**100**

(a) Persons includes cases that were not specified as male or female.

The proportions of work-related hospitalised injury cases funded by workers' compensation were highest for those injured in an industrial and construction area (71%) or a school (70%), while the lowest proportions were for those injured on a farm (33%) or at a home (34%) (Figure 3.2).

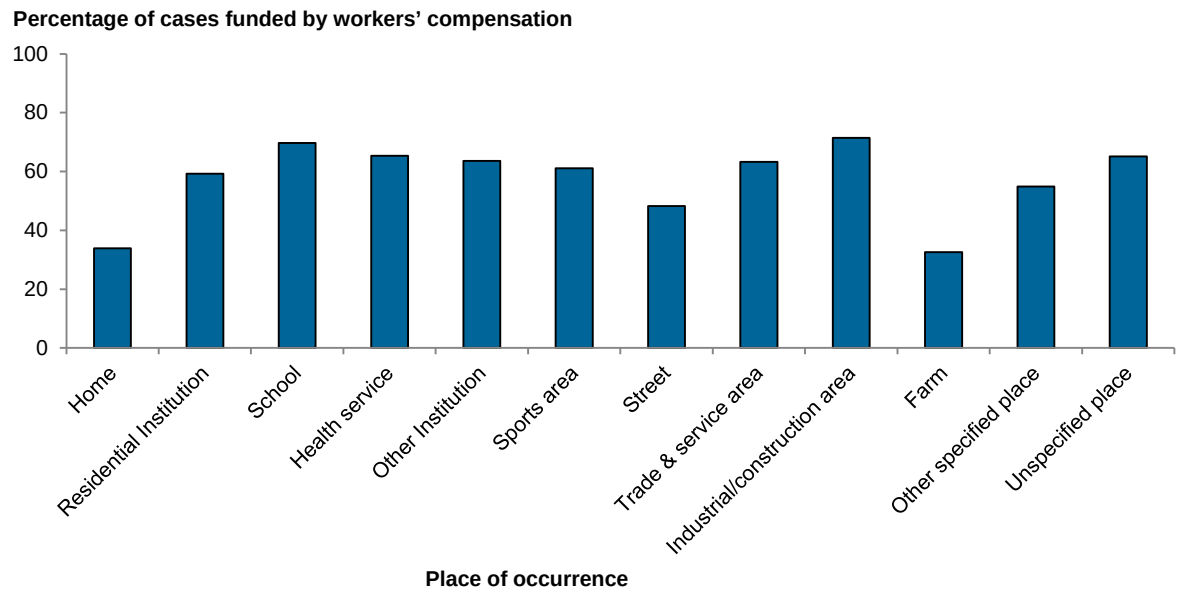


Figure 3.2: Proportion of work-related hospitalised injury cases funded by workers' compensation, by place of occurrence, Australia, 2006–07 to 2013–14

Nature of injury

Almost 28% (21,888) of work-related hospitalised injury cases which were funded by sources other than workers' compensation had a principal diagnosis indicating some type of fracture (Table 3.13). Other common types of injury included open wounds (21%) and soft-tissue injuries (16%)

Table 3.13: Work-related hospitalised injury cases funded by sources other than workers' compensation, by nature of injury, by sex, Australia, 2006–07 to 2013–14

Nature of injury	Males	Females	Persons[(a)]	%
Fracture	18,244	3,644	21,888	27.9
Dislocation	1,288	307	1,595	2.0
Soft-tissue injury	10,537	1,899	12,436	15.8
Open wound	14,559	1,566	16,126	20.5
Intracranial injury	2,166	552	2,718	3.5
Internal organ or vessel of trunk	871	112	983	1.3
Burn	1,914	381	2,295	2.9
Superficial injury	2,511	574	3,085	3.9
Poisoning or toxic effect	1,370	455	1,825	2.3
Other specified	10,104	1,215	11,319	14.4
Unspecified	3,002	1,219	4,221	5.4
Total	**66,566**	**11,924**	**78,491**	**100**

(a) Includes cases that were not specified as male or female.

Bodily location of injury

One-third (33%, or 26,101) of work-related hospitalised injury cases which were funded by sources other than workers' compensation had a principal diagnosis indicating an injury to the wrist and hand (Table 3.14). Other common injury locations included head (12%) and knee and lower leg (11%)

Table 3.14: Work-related hospitalised injury cases funded by sources other than workers' compensation, by bodily location of injury, by sex, Australia, 2006–07 to 2013–14

Bodily location of injury	Males	Females	Persons[(a)]	%
Head	7,674	1,640	9,314	11.9
Neck	1,378	448	1,826	2.3
Thorax	2,989	501	3,490	4.4
Abdomen, lower back, lumbar spine and pelvis	4,027	1,238	5,265	6.7
Shoulder and upper arm	3,809	874	4,683	6.0
Elbow and forearm	4,632	1,204	5,836	7.4
Wrist and hand	23,794	2,306	26,101	33.3
Hip and thigh	1,902	507	2,409	3.1
Knee and lower leg	7,418	1,582	9,000	11.5
Ankle and foot	2,832	415	3,247	4.1
Other, multiple and incompletely described body regions	3,326	542	3,868	4.9
Bodily location not described	2,785	667	3,452	4.4
Total	**66,566**	**11,924**	**78,491**	**100**

(a) Includes cases that were not specified as male or female.

Funding source

More than two-thirds (67%, or 52,904) of work-related hospitalised injury cases which were funded by sources other than workers' compensation were funded by Australian Health Care Agreements, while a further 19% were funded by private health insurance (Table 3.15).

Table 3.15: Work-related hospitalised injury cases funded by sources other than workers' compensation, by funding source, by sex, Australia, 2006–07 to 2013–14

Funding source	Males	Females	Persons[(a)]	%
Australian Health Care Agreements	45,243	7,661	52,904	67.4
Private health insurance	12,254	2,366	14,621	18.6
Self-funded	3,281	663	3,944	5.0
Motor vehicle third party	2,481	616	3,097	3.9
Other compensation	836	179	1,015	1.3
Department of Veteran Affairs	216	63	279	0.4
Department of Defence	485	47	532	0.7
Correctional facility	11	0	11	0.0
Other hospital or public authority	160	25	185	0.2
Reciprocal Health Care Agreements	381	64	445	0.6
Other	750	136	886	1.1
Not reported	468	104	572	0.7
Total	**66,566**	**11,924**	**78,491**	**100**

(a) Includes cases that were not specified as male or female.

Hospital sector

Close to two-thirds (67%) of work-related hospitalised injury cases funded by workers' compensation were admitted to a public hospital (Table 3.16). The equivalent percentage for cases funded by sources other than workers' compensation was 83%.

Table 3.16: Work-related hospitalised injury cases by whether or not case was funded by workers' compensation, by hospital sector, by sex, Australia, 2006–07 to 2013–14

	Workers' compensation					
	Yes			No		
Hospital sector	Males	Females	Persons	Males	Females	Persons[(a)]
Public	74,788	11,550	86,338	55,769	9,636	65,406
Private	35,085	7,348	42,433	10,797	2,288	13,085
Total	**109,873**	**18,898**	**128,771**	**66,566**	**11,924**	**78,491**

(a) Includes cases that were not specified as male or female.

3.3 Additional diagnosis of injury

ICD-10-AM activity codes are provided for use with external cause codes to identify the activity of the injured person when the injurious event occurred. Attention in this report is focused on cases with the activity code that means 'while working for income'.

In Section 3.2, 'while working for income' cases with injury as the principal diagnosis are described, focusing on the admitted care episodes funded by sources other than workers' compensation.

Another 18,139 'while working for income' cases hospitalised in the period from 2006–07 to 2013–14 also have codes for injury conditions, but the injuries are recorded as additional diagnoses, and not as the Principal diagnosis. Just over half (50.3%) of all 'while working for income' admitted cases with injury as an additional diagnosis were funded by workers' compensation (Table 3.1), and they are described in Chapter 2. The remaining 9,012 (49.7%) cases of that type, that were funded by sources other than workers' compensation, are described here.

It was anticipated that the codes in these records (notably principal and additional diagnoses, external causes and activity codes) would indicate that many or most represent work-related injury cases (like those reported in Section 3.2), though with something else reported in the principal diagnosis field. Based on previous work, it was anticipated that many of these cases would have a combination of codes indicating the presence of a work-related injury that has as its principal diagnosis either (1) a code indicating an infection, plausibly complicating the injury, or (2) code for a factor influencing health status or contact with health services where the injury. Since other records in this set might not be work related injury cases these cases were included in the report but kept separate from the cases reported in Section 3.2.

Age and sex

There were 9,012 work-related hospitalised cases with injury as an additional diagnosis, funded by sources other than workers' compensation, in Australia in the period from 2006–07 to 2013–14 (Table 3.17). Of these cases, almost 75% (6,730) were male and 85% (7,695) were aged 15–64. These percentages were lower than the equivalent percentages of 85% and 93%, respectively for cases for which the principal diagnosis indicated injury

(Table 3.2). In comparison to principal diagnosis cases, additional diagnosis cases were proportionally lower in age groups up to the mid-40s and proportionally higher in age groups above that. A small proportion of hospitalised injury cases reported as working for income were young children. It is not clear whether this is due to reporting errors or unusual circumstances.

Table 3.17: Work-related hospitalised cases with injury as an additional diagnosis funded by sources other than workers' compensation, by age group, by sex, Australia, 2006–07 to 2013–14

Age group	Males	Females	Persons	%
0–4	0	1	1	0.0
5–9	1	1	2	0.0
10–14	11	4	15	0.2
15–19	273	83	356	4.0
20–24	541	144	685	7.6
25–29	504	119	623	6.9
30–34	558	75	633	7.0
35–39	640	152	792	8.8
40–44	578	194	772	8.6
45–49	663	449	1,112	12.3
50–54	692	212	904	10.0
55–59	685	330	1,015	11.3
60–64	612	191	803	8.9
65–69	326	77	403	4.5
70–74	282	66	348	3.9
75–79	234	39	273	3.0
80–84	72	64	136	1.5
85+	58	81	139	1.5
Total	**6,730**	**2,282**	**9,012**	**100**

Diagnosis groups

Just over 40% (3,615) of work-related hospitalised cases with injury as an additional diagnosis, funded by sources other than workers' compensation, were assigned a principal diagnosis from Chapter 21 of ICD-10-AM, *Factors influencing health status and contact with health services* (Table 3.18). Of these cases, almost 90% involved the use of rehabilitation procedures. Other common diagnosis groups included *Diseases of the skin and cutaneous tissue* (19%) and *Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified* (12%). For the first of these 2 groups, the most common diagnoses were cellulitis (81%) and cutaneous abscess, furuncle and carbuncle (14%), while for the second of these groups, the most common diagnoses were syncope and collapse (53%) and convulsions (19%).

Table 3.18: Work-related hospitalised cases with injury as an additional diagnosis funded by sources other than workers' compensation, by diagnostic group, by sex, Australia, 2006–07 to 2013–14

Diagnosis group	Males	Females	Persons	%
Certain infectious and parasitic diseases	71	13	84	0.9
Neoplasms	62	16	78	0.9
Diseases of the blood and blood-forming organs and certain disorders involving the immune system	39	4	43	0.5
Endocrine, nutritional and metabolic diseases	161	35	196	2.2
Mental and behavioural disorders	146	56	202	2.2
Diseases of the nervous system	258	88	346	3.8
Diseases of the eye and adnexa	53	5	58	0.6
Diseases of the ear and mastoid process	7	6	13	0.1
Diseases of the circulatory system	328	64	392	4.3
Diseases of the respiratory system	128	31	159	1.8
Diseases of the digestive system	97	26	123	1.4
Diseases of the skin and subcutaneous tissue	1,500	187	1,687	18.7
Diseases of the musculoskeletal system and connective tissue	480	149	629	7.0
Diseases of the genitourinary system	78	18	96	1.1
Pregnancy, childbirth and the puerperium	0	38	38	0.4
Congenital malformations, deformations and chromosomal abnormalities	3	0	3	0.0
Symptoms, signs and abnormal clinical and laboratory findings, nec	762	343	1,105	12.3
Injury, poisoning and certain other consequences of external causes	121	24	145	1.6
Factors influencing health status and contact with health services	2,436	1,179	3,615	40.1
Total	**6,730**	**2,282**	**9,012**	**100**

Major external cause groups

Almost 44% (3,952) of work-related hospitalised cases with injury as an additional diagnosis, funded by sources other than workers' compensation, were assigned an ICD-10-AM code from the *Other unintentional* external cause group (Table 3.19). Other common major external cause groups included *Falls* (33%) and *Transport crashes* (15%).

Table 3.19: Work-related hospitalised cases with injury as an additional diagnosis funded by sources other than workers' compensation, by major external cause group, by sex, Australia, 2006–07 to 2013–14

Major external cause group	Males	Females	Persons	%
Transport crashes	914	401	1,315	14.6
Drowning	2	0	2	0.0
Poisoning, pharmaceuticals	20	12	32	0.4
Poisoning, other substances	89	22	111	1.2
Falls	1,973	1,030	3,003	33.3
Fires/burns/scalds	97	14	111	1.2
Other unintentional	3,245	707	3,952	43.9
Intentional, self-inflicted	14	14	28	0.3
Intentional, inflicted by another	135	19	154	1.7
Undetermined intent	49	8	57	0.6
Medical misadventure, complications, etc.	123	42	165	1.8
Sequelae of external causes	18	6	24	0.3
No external cause code	51	7	58	0.6
Total	**6,730**	**2,282**	**9,012**	**100**

Other unintentional

Just over 12% (477) of work-related hospitalised cases with injury as an additional diagnosis, funded by sources other than workers' compensation, involved *Overexertion and strenuous and repetitive movements* while a further 11% (429) involved *Striking against or being struck by other objects* (Table 3.20).

Table 3.20: Work-related hospitalised injury cases with injury as an additional diagnosis involving 'Other unintentional' causes funded by sources other than workers' compensation, by mechanism of injury, by sex, Australia, 2006–07 to 2013–14

Mechanism of injury	Males	Females	Persons	Other unintentional cases % (3,592)
Exposure to unspecified factor (X59)	499	149	648	16.4
Overexertion and strenuous and repetitive movements (X50)	272	205	477	12.1
Striking against or struck by other objects (W22)	380	49	429	10.9
Exposure to other and unspecified inanimate objects (W49)	295	25	320	8.1
Foreign body or object entering through skin (W45)	271	19	290	7.3
Struck by thrown, projected or falling object (W20)	196	17	213	5.4
Bitten or struck by other mammals (W55)	122	56	178	4.5
Contact with other and unspecified machinery (W31)	161	12	173	4.4
Exposure to excessive natural heat (X30)	124	5	129	3.3
Caught, crushed, jammed or pinched in between objects (W23)	107	9	116	2.9
Contact with knife, sword or dagger (W26)	78	13	91	2.3
Bitten or stung by nonvenomous insect and other nonvenomous arthropods (W57)	59	19	78	2.0
Contact with other powered hand tools & household machinery (W29)	70	4	74	1.9
Contact with non-powered hand tool (W27)	61	6	67	1.7
Exposure to other specified factors (X58)	52	9	61	1.5
Total of most common mechanisms	**2,747**	**597**	**3,344**	**84.6**

Industry sector

Over 12% (1,098) of the work-related hospitalised cases with injury as an additional diagnosis, funded by sources other than workers' compensation, involved people who were working in *Agriculture, forestry and fishing* industries when they were injured (Table 3.21). Other common areas of work included *Construction* (8%) and *Health services* (6%). In all industry sectors other than health services, where female cases were more than twice those of male cases, the number of male cases was markedly higher than the number of female cases. The biggest difference was observed in the *Construction* industry where there were 732 male cases and only 4 female cases.

The proportion of additional diagnosis cases within each industry sector was broadly similar to that for cases with injury as a principal diagnosis (see Table 3.11). When compared to principal diagnosis cases, additional diagnosis cases were proportionally lower in the *Agricultural, forestry and fishing*, *Mining*, *Manufacturing* and *Construction* sectors and proportionally higher in the *Government administration and defence* and *Health services* sectors.

The number of cases within each industry is likely to be an underestimate of the true number of cases due to the significant proportion of cases (37%, or 3,316) for which the industry in which the person was working at the time they were injured was unspecified.

Table 3.21: Work-related hospitalised cases with injury as an additional diagnosis funded by sources other than workers' compensation, by industry sector, by sex, Australia, 2006–07 to 2013–14

Industry sector	Males	Females	Persons	%
Agriculture, forestry and fishing	963	135	1,098	12.2
Mining	83	13	96	1.1
Manufacturing	177	38	215	2.4
Construction	732	4	736	8.2
Wholesale and retail trade	190	128	318	3.5
Transport and storage	455	42	497	5.5
Government administration and defence	194	45	239	2.7
Health services	157	368	525	5.8
Other specified work	1,338	634	1,972	21.9
Unspecified	2,441	875	3,316	36.8
Total	**6,730**	**2,282**	**9,012**	**100**

The percentage of work-related hospitalised cases with injury as an additional diagnosis that were funded by workers' compensation was highest for those working in the *Mining* industry (70%) (Figure 3.3). The lowest percentages were for those working in *Government administration and defence* (21%) and in *Agricultural, forestry and fishing* industries (28%).

The percentage of additional diagnosis cases funded by workers' compensation within each industry sector showed a similar pattern to that for cases with injury as a principal diagnosis (see Figure 3.1). However, percentages were markedly higher for principal diagnosis cases in most sectors, most notably in the *Government administration and defence* and *Manufacturing* sectors.

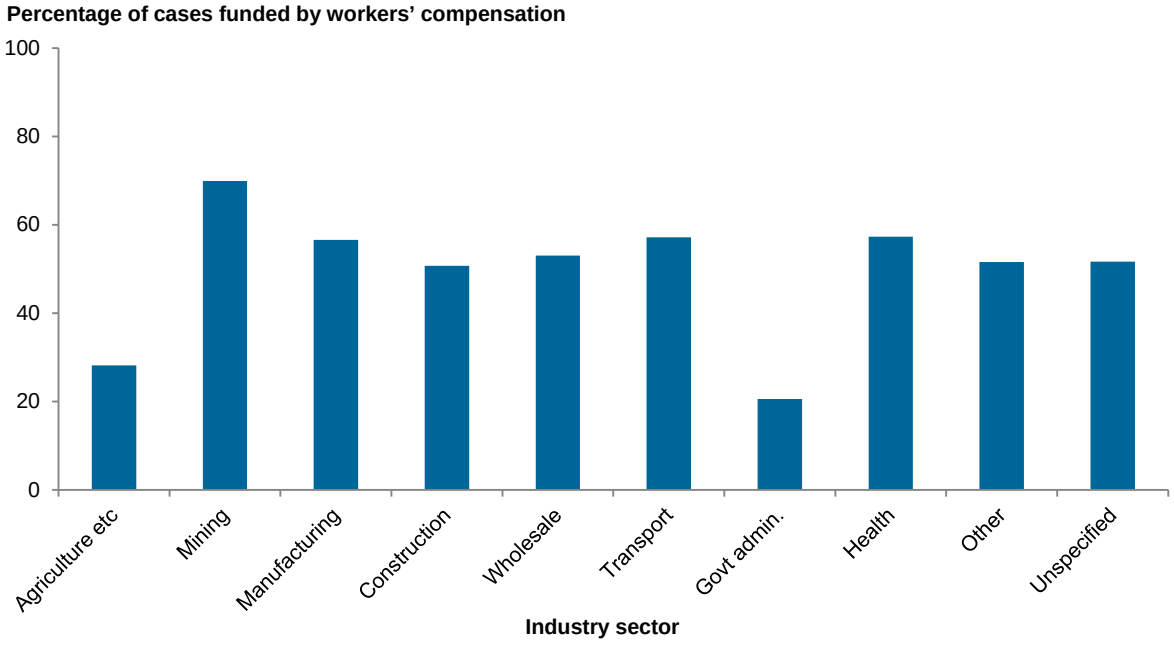


Figure 3.3: Percentage of work-related hospitalised cases with injury as an additional diagnosis funded by workers' compensation, by industry sector, Australia, 2006–07 to 2013–14

Place of occurrence

Almost 12% (1,066) of the work-related hospitalised cases with injury as an additional diagnosis, funded by sources other than workers' compensation, were in a trade and service area when they were injured (Table 3.22). Of these cases, just over one-third (34%) were in a shop or store and 19% were in a café, hotel or restaurant. Other common places of occurrence of injury included a street or highway (11%), industrial and construction area (10%), and farm (9%).

The proportion of cases with injury as an additional diagnosis occurring at each type of place (Table 3.22) has a similar pattern to that for cases with injury as a principal diagnosis (Table 3.12).

As with industry sector, the number of cases within each place of occurrence is likely to be an underestimate of the true number of cases due to the significant proportion of cases (37%, or 3,296) for which the place of occurrence at time the injury was sustained was unspecified.

Table 3.22: Work-related hospitalised cases with injury as an additional diagnosis funded by sources other than workers' compensation, by place of occurrence, by sex, Australia, 2006–07 to 2013–14

Place of occurrence	Males	Females	Persons	%
Home	269	147	416	4.6
Residential institution	27	43	70	0.8
School	34	62	96	1.1
Health service area	248	320	568	6.3
Other specified institution	28	66	94	1.0
Sports and athletics	92	9	101	1.1
Street and highway	583	373	956	10.6
Trade and service area	687	379	1,066	11.8
Industrial and construction area	889	44	933	10.4
Farm	681	92	773	8.6
Other specified place	496	130	626	6.9
Unspecified place of occurrence	2,682	614	3,296	36.6
Place not reported/no	14	3	17	0.2
Total	**6,730**	**2,282**	**9,012**	**100**

The percentages of the work-related hospitalised cases with injury as an additional diagnosis, funded by workers' compensation, were highest for those that occurred in a residential institution (63%) or a school (59%), while the lowest percentage was for those where injury occurred while on a farm (26%) (Figure 3.4).

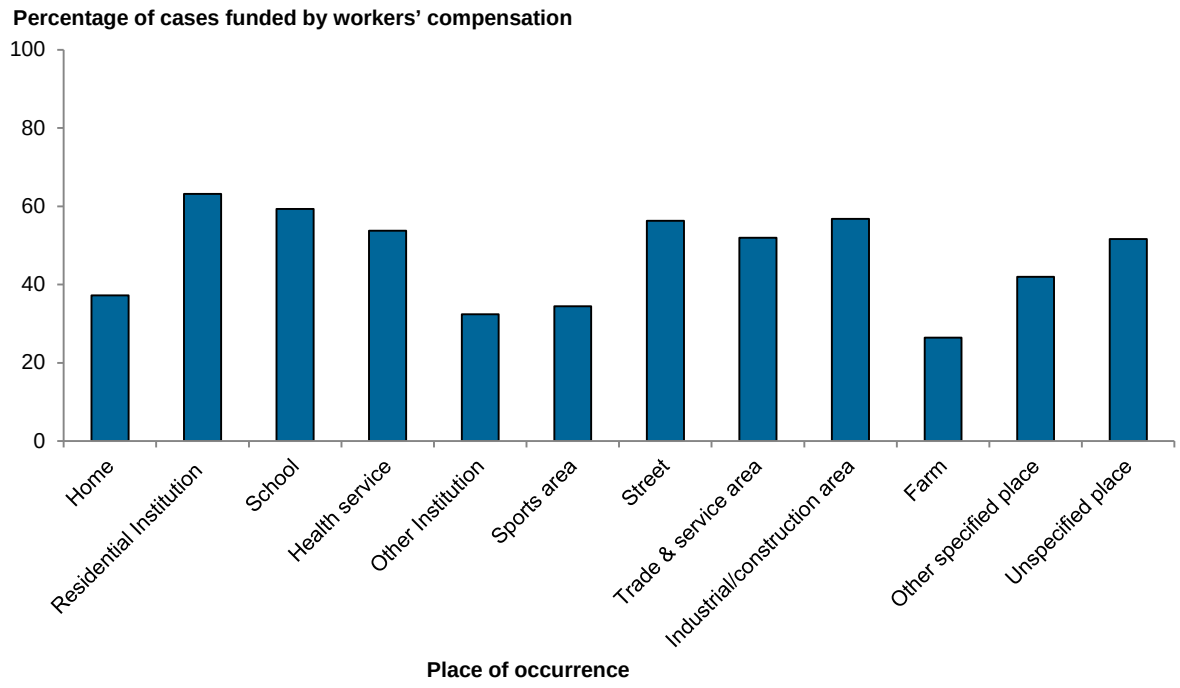


Figure 3.4: Percentage of work-related hospitalised cases with injury as an additional diagnosis funded by workers' compensation by place of occurrence, Australia, 2006–07 to 2013–14

3.4 No injury diagnosis

This section provides a description of all hospitalised cases for the period from 2006–07 to 2013–14 where the activity code indicated that the condition occurred while the person was working for income; the episode was not funded by workers' compensation; and the hospital record did not contain a diagnosis code in the injury range. Table 3.1 shows these cases in relation to the 2 other types that are described elsewhere in this chapter, those with injury as the principal diagnosis and those with injury as an additional diagnosis. The focus in this section is on cases for which the funding source for hospital care was not workers' compensation insurance. (Injury cases funded by workers' compensation insurance are described in Chapter 2 of this report.)

Age and sex

There were 3,497 work-related hospitalised cases without any injury diagnosis, funded by sources other than workers' compensation, in the period from 2006–07 to 2013–14 (Table 3.23). Of these cases, just over 64% (2,248) were male and 90% (3,143) were aged 15–64. A small proportion of hospitalised cases reported as working for income were young children. It is not clear whether this is due to reporting errors or unusual circumstances.

Table 3.23: Work-related hospitalised cases without any injury diagnosis, funded by sources other than workers' compensation, by age group, by sex, Australia, 2006–07 to 2013–14

Age group	Males	Females	Persons	%
5–9	2	1	3	0.1
10–14	1	1	2	0.1
15–19	77	70	147	4.2
20–24	155	145	300	8.6
25–29	181	186	367	10.5
30–34	194	164	358	10.2
35–39	254	134	388	11.1
40–44	240	114	354	10.1
45–49	254	125	379	10.8
50–54	251	96	347	9.9
55–59	217	75	292	8.4
60–64	167	44	211	6.0
65–69	90	27	117	3.3
70–74	52	20	72	2.1
75–79	39	14	53	1.5
80–84	43	14	57	1.6
85+	31	19	50	1.4
Total	**2,248**	**1,249**	**3,497**	**100**

Diagnosis groups

Over one-quarter (26%, or 906) of work-related hospitalised cases without any injury diagnosis, funded by sources other than workers' compensation, were assigned a principal diagnosis involving *Diseases of the musculoskeletal system and connective tissue* (Table 3.24). Nearly 44% of these cases experienced some form of dorsopathy (back pain).

Other common diagnosis groups included *Injury, poisoning and certain other consequences of external causes* (18%) and *Factors influencing health status and contact with health services* (17%). Note that for the first of these diagnosis groups, the assigned codes fall outside the definition for injury and poisoning outlined in the introduction to this chapter. Over four-fifths (82%) of these cases involved adverse effects such as anaphylactic shock and other allergic reactions. Almost 89% of the cases in the second of these groups involved examination and observation following an accident or rehabilitation procedures.

Table 3.24: Work-related hospitalised cases without any injury diagnosis, funded by sources other than workers' compensation, by diagnostic group, by sex, Australia, 2006–07 to 2013–14

Diagnosis group	Males	Females	Persons	%
Certain infectious and parasitic diseases	18	2	20	0.6
Neoplasms	29	10	39	1.1
Diseases of the blood and blood-forming organs and certain disorders involving the immune system	3	2	5	0.1
Endocrine, nutritional and metabolic diseases	24	6	30	0.9
Mental and behavioural disorders	60	24	84	2.4
Diseases of the nervous system	83	47	130	3.7
Diseases of the eye and adnexa	78	5	83	2.4
Diseases of the ear and mastoid process	3	0	3	0.1
Diseases of the circulatory system	87	22	109	3.1
Diseases of the respiratory system	88	29	117	3.3
Diseases of the digestive system	147	34	181	5.2
Diseases of the skin and subcutaneous tissue	155	35	190	5.4
Diseases of the musculoskeletal system and connective tissue	654	252	906	25.9
Diseases of the genitourinary system	46	16	62	1.8
Pregnancy, childbirth and the puerperium	0	43	43	1.2
Congenital malformations, deformations and chromosomal abnormalities	184	82	266	7.6
Injury, poisoning and certain other consequences of external causes	287	330	617	17.6
Factors influencing health status and contact with health services	301	309	610	17.4
No principal diagnosis	1	1	2	0.1
Total	**2,248**	**1,249**	**3,497**	**100**

Major external cause groups

Almost 47% (1,631) of work-related hospitalised cases without any injury diagnosis, funded by sources other than workers' compensation, had an ICD-10-AM code from the *Other unintentional* external cause group (Table 3.25). Of these cases, over one-quarter (26%) involved some form of overexertion.

Other common major external cause groups included *Sequelae of external causes* (17%), *Falls* (12%) and *Transport crashes* (10%). For cases involving *Transport crashes*, close to half involved occupants of a car and over one-fifth (22%) involved occupants of a heavy transport vehicle.

Table 3.25: Work-related hospitalised cases without any injury diagnosis funded by sources other than workers' compensation, by major external cause, by sex, Australia, 2006–07 to 2013–14

Major external cause group[(a)]	Males	Females	Persons	%
Transport crashes	261	103	364	10.4
Drowning	3	0	3	0.1
Poisoning, pharmaceuticals	3	8	11	0.3
Poisoning, other substances	67	31	98	2.8
Falls	169	263	432	12.4
Fires/burns/scalds	13	2	15	0.4
Other unintentional	1,071	560	1,631	46.6
Intentional, self-inflicted	1	0	1	0.0
Intentional, inflicted by another	22	18	40	1.1
Undetermined intent	7	7	14	0.4
Medical misadventure, complications, etc.	124	146	270	7.7
Sequelae of external causes	495	101	596	17.0
No external causes code	12	10	22	0.6
Total	**2,248**	**1,249**	**3,497**	**100**

(a) Grouped according to the first external cause code in each record.

Industry sector

Over 14% (507) of work-related hospitalised cases without any injury diagnosis, funded by sources other than workers' compensation were working in the health services industry at the time they were injured (Table 3.26). Other common areas of work included *Agriculture, forestry and fishing* (9%) and *Transport and storage* (6%).

In all industry sectors, other than *Health services* and the *Wholesale and retail trade*, the number of male cases was markedly higher than the number of female cases. The biggest difference was observed within the construction industry where there were 160 male cases and only 2 female cases.

The number of cases within each industry is likely to be an underestimate of the true number of cases due to the significant proportion of cases (36%, or 1,255) for which the industry in which the person was working at the time they were injured was unspecified.

Table 3.26: Work-related hospitalised cases without any injury diagnosis funded by sources other than workers' compensation, by industry sector, by sex, Australia, 2006–07 to 2013–14

Industry sector	Males	Females	Persons	%
Agriculture, forestry and fishing	265	52	317	9.1
Mining	105	8	113	3.2
Manufacturing	82	12	94	2.7
Construction	160	2	162	4.6
Wholesale and retail trade	52	74	126	3.6
Transport and storage	179	17	196	5.6
Government administration and defence	79	22	101	2.9
Health services	163	344	507	14.5
Other specified work	375	251	626	17.9
Unspecified	788	467	1,255	35.9
Total	**2,248**	**1,249**	**3,497**	**100**

Place of occurrence

Over 14% (506) of work-related hospitalised cases without any injury diagnosis, funded by sources other than workers' compensation, were in a *Health services* area at the time they were injured (Table 3.27). Other common places of occurrence of injury include *Industrial and construction* areas (12%), *Trade and service* areas (10%) and *Street and highway* (10%).

As with industry sector, the number of cases within each place of occurrence is likely to be an underestimate of the true number of cases due to the significant proportion of cases (36%, or 1,261) for which the place of occurrence at time the injury was sustained was unspecified or not reported.

Table 3.27: Work-related hospitalised cases without any injury diagnosis funded by sources other than workers' compensation, by place of occurrence, by sex, Australia, 2006–07 to 2013–14

Place of occurrence	Males	Females	Persons	%
Home	41	19	60	1.7
Residential institution	10	26	36	1.0
School	11	55	66	1.9
Health Service area	173	333	506	14.5
Other specified institution	10	14	24	0.7
Sports and athletics areas	5	8	13	0.4
Street and highway	250	89	339	9.7
Trade and service area	173	183	356	10.2
Industrial and construction area	380	33	413	11.8
Farm	168	45	213	6.1
Other specified place of occurrence	157	53	210	6.0
Unspecified place of occurrence	862	389	1,251	35.8
Not reported	8	2	10	0.3
Total	**2,248**	**1,249**	**3,497**	**100**

Appendix A: Data issues

Data sources

The data on hospital separations are from the Australian Institute of Health and Welfare's National Hospital Morbidity Database (NHMD). Comprehensive information on the quality of the data for 2013–14 is available in *Admitted patient care 2013–14,* in *Australian hospital statistics* (AIHW 2015) and in the data quality statement below. Nearly all hospital admissions in Australia are included in the NHMD data reported.

In 2013–14, diagnoses and external causes of injury and poisoning were recorded using the 8th edition of the *International Statistical Classification of Diseases and Related Health Problems, 10th revision, Australia modification* (NCCH 2013). Data from earlier years were coded to earlier editions of the ICD-10-AM (NCCH 2006, 2008, 2010).

Selection criteria

This report is intended to describe the population incidence of work-related injuries or work-related medical conditions that result in an episode of care in hospital.

Injury and poisoning cases

Cases were included in Section 2.2 of this report if they had a principal diagnosis from Chapter 19 of ICD-10-AM: *Injury, poisoning and certain other consequences of external causes* (S00–T98). This follows the pattern in Chapter 2 of the report where sections are specified in terms of chapters in the ICD-10-AM. Hospitalised injury cases included in Chapter 3 of this report were restricted to those with codes from ICD-10-AM Chapter 19 range S00–T75, T79 as the principal diagnosis, which is how injury is defined in most AIHW reports on the topic. This code range is used because it includes injuries most likely to have been sustained in the community, as distinct from conditions resulting from complications of medical care or sequelae of trauma. Work-related injury cases (Chapter 3) are injury cases in which the first-reported *Activity when injured* was recorded as ICD-10-AM code U73.0: *While working for income*.

Cases funded by workers' compensation

Cases in Chapter 2 were selected as having been funded by workers' compensation if the *Funding source for hospital patient* variable current in data years 2006–07 to 2011–12 had value 4 (METeOR identifier: 339080) or if the *Funding source for hospital patient* current in data years 2012–13 and 2013–14 had value 10 (METeOR identifier: 472033).

External causes of morbidity and mortality

For both chapters 2 and 3, cases were classified to a major external cause group on the basis of the first occurring external cause code in the hospital record.

Estimating incident cases

Each record in the NHMD refers to a single episode of care in a hospital. Some injuries or medical conditions result in more than 1 episode in hospital and, hence, more than 1 NHMD record. This can occur in 2 main ways:

- a person is admitted to 1 hospital, then transferred to another or has a change in care type (for example, from acute to rehabilitation) within the 1 hospital
- a person has an episode of care in hospital, is discharged home (or to another place of residence) and is then admitted for further treatment for the same injury or medical condition, to the same hospital or another one.

The NHMD does not include information designed to enable the records that refer to an individual person to be recognised as a set. Hence, there is potential for some incident cases to be counted more than once, which occurs when a single incident injury case or medical condition results in 2 or more NHMD records being generated, all of which satisfy the selection criteria being used.

Information in the NHMD enables this problem to be reduced, though not eliminated. The approach used for this report makes use of the *Mode of admission* variable, which indicates whether the current episode began with an inward transfer from another acute care hospital. Episodes of this type (inward transfers) are likely to have been preceded by another episode that also met the case selection criteria for injury or medical condition cases, so inward transfers are omitted when estimating case counts.

This procedure should largely correct for over-estimation of injury cases due to transfers, but will not correct for over-estimation due to readmissions that do not follow immediately after transfer. The potential for multiple counting is particularly great for some types of injury cases, such as burns (repeated admissions may be needed for skin grafting, etcetera). Some non-injury conditions also require multiple admissions. For example, treatment of malignant tumours may require multiple sessions of radiotherapy or chemotherapy. More generally, episodes in which the Principal diagnosis is a code for follow-up care or rehabilitation may have been preceded by one or more previous episodes of admitted care.

Length of stay

The patient days reported during the episodes that were omitted to reduce overestimation of incident cases are still part of the hospital care provided for the incident cases and are therefore retained when calculating mean and total length of stay.

Note that length of stay as presented in this report does not include some patient days potentially attributable to injury or medical condition. In particular, it does not include days for most aspects of rehabilitation, which were difficult to assign correctly without information enabling identification of all admitted episodes associated with a case.

Population data and the calculation of rates

Rates were calculated using 2 different types of population estimates as denominators. For Figure 2.3, the denominator is ABS estimates of the total employed labour force, which corresponds more closely than other available populations to the set of people who could become workers' compensation claimants. Crude rates were calculated in Figure 2.3 due to the unavailability of denominator data by age group.

While it would have been preferable to use total employed labour force denominators for tables relating to remoteness area of residence (tables 2.2 and 3.9) and to socioeconomic status (tables 2.3 and 3.10), this information was not available in a suitable format. Hence, age-standardised rates for these tables were calculated using as the denominator the estimated resident population (ERP) as at 31 December in the relevant years. Where possible, the final release of ERPs was used.

Rate calculations are used only where counts and proportions are particularly difficult to interpret in this report. Age-standardised rates were calculated using Stata software (StataCorp 2015).

Rates by remoteness area of residence

Calculation of age-standardised rates by remoteness area of residence over time is complicated by the change in the ABS classification system used to define remoteness areas from the Australian Standard Geographical Classification (ASGC) system to the Australian Statistical Geography Standard (ASGC) system (see below).

Remoteness area of residence information in the hospital separations data supplied by the AIHW had been classified according to ASGC for cases separating up until the end of 2011–12 and classified according to ASGS for the period 2012–13 to 2013–14.

Calculation of population-based rates by remoteness zone requires estimated resident population data (ERPs) that are based on the same geographical classification as the case data. The non-availability of ASGC-based ERPs for June 2012 meant that ASGC-based ERPs for 31 December 2011 could not be directly calculated. Hence ERPs which were available for June 2011 in both ASGC and ASGS formats were used as a basis for approximating ASGC-based ERPs for June 2012 by adjustment to ASGS-based ERPs for June 2012.

Classification of remoteness area

Remoteness area in this report refers to the place of usual residence of the person. Two difference geographical classification systems were used during the period covered by this report.

Australian Standard Geographical Classification (ASGC)

Australia can be divided into several regions based on their distance from urban centres, which is considered to determine the range and types of services available. In this report, ‘remoteness area’ refers to the place of usual residence of the person who was admitted to hospital, assigned on the basis of the reported Statistical Local Area (SLA) of residence.

Remoteness categories are based on the Accessibility/Remoteness Index of Australia (ARIA). According to this method, remoteness is an index applicable to any point in Australia, based on road distance from urban centres of 5 sizes. The reported areas are defined as the following ranges of the index:

- *Major cities* (for example, Sydney, Geelong, Gold Coast), ARIA index 0 to 0.2
- *Inner regional* (for example, Hobart, Ballarat, Coffs Harbour), ARIA index >0.2 and ≤2.4
- *Outer regional* (for example, Darwin, Cairns, Coonabarabran), ARIA index >2.4 and ≤5.92
- *Remote* (for example, Alice Springs, Broome, Strahan), ARIA index of >5.92 and ≤10.53
- *Very remote* (for example, Coober Pedy, Longreach, Exmouth), ARIA index >10.53.

Most SLAs lie entirely within 1 of the 5 remoteness categories. If this was so for all SLAs, then each record could simply be assigned to the area in which its SLA lies. However, some SLAs overlap 2 or more of the areas. Records with these SLAs were assigned to remoteness areas in proportion to the area-specific distribution of the resident population of the SLA according to the 2006 Census. Each record in the set having a particular SLA code was randomly assigned to 1 or other of the remoteness areas present in it, in proportion to the resident population of that SLA.

Australian Statistical Geography Standard (ASGS)

The ASGS is a hierarchical classification system of geographical regions and consists of a number of interrelated structures. The ASGS brings all the regions for which the ABS publishes statistics within the 1 framework and has been used by the ABS for the collection and dissemination of geographically classified statistics from 1 July 2011. It provides a common framework of statistical geography and enables the production of statistics which are comparable and can be spatially integrated.

Australian Statistical Geography Standard (ASGS) Volume 1: Main structure and greater capital city statistical areas (ABS cat. no. 1270.0.55.001), is the first in a series of volumes that detail the various structures and regions of the ASGS.

Each case is allocated to 1 of 5 remoteness areas on the basis of the admitted patient's place of usual residence according to Statistical Area Level 2 (SA2). Most SA2s lie entirely within 1 of the 5 areas. If this was so for all SA2s, then each record could simply be assigned to the area in which its SA2 lies. However, some SA2s overlap 2 or more of the areas.

Allocation of each ASGS-coded case to 5 remoteness areas was done in a similar way to that described above for ASGC-coded data. The noteworthy difference is that allocation of ASGS-coded data was according to Statistical Area Level 2 (SA2) of residence, whereas allocation of ASGC-coded data was according to SLA of residence.

Records with the minority of SA2s that did not lie entirely within one of the five remoteness areas were assigned to remoteness areas in proportion to the area-specific distribution of the resident population of the SA2 according to the 2011 Census. For hospitalised cases, each record in the set having a particular SA2 code was assigned to 1 or other of the areas probabilistically, in proportion to the resident population of that SA2. The resulting values are integers. An SA2 remoteness area map can be found in *Australian Statistical Geography Standard (ASGS): Correspondences, July 2011* (ABS cat no. 1270.0.55.006).

Socioeconomic status

Data on SES groups are defined using the ABS's Socio-Economic Indexes for Areas 2011 (SEIFA 2011) (ABS 2013).

The SEIFA 2011 data are generated by the ABS using a combination of 2011 Census data such as income, education, health problems/disability, access to internet, occupation/unemployment, wealth and living conditions, dwellings without motor vehicles, rent paid, mortgage repayments, and dwelling size. Composite scores are averaged across all people living in areas and defined for areas based on the Census collection districts. However, they are also compiled for higher levels of aggregation. The SEIFAs are described in detail on the ABS website <www.abs.gov.au>.

The SEIFA Index of Relative Socio-Economic Disadvantage (IRSD) is 1 of the ABS SEIFA indexes. The relative disadvantage scores indicate the average SES of the people living in an area, with reference to the situation and standards applying in the wider community at a

given point in time. A relatively disadvantaged area has a high proportion of relatively disadvantaged people. However, the population of such an area is also likely to include some people who are not disadvantaged, or who are relatively advantaged.

NHMD separation records were assigned to one of 5 SES groups on the basis of the IRSD score for the SA2 of usual residence of the patient, as reported or derived for the record. The '1—Lowest' group represents areas containing the 20% of the national population with the most disadvantage, and the '5—Highest' group represents areas containing the 20% of the national population with the least disadvantage. These SES groups do not necessarily represent 20% of the population in each state or territory. Assignment to an SES group is based on the area of usual residence of the patient, not the location of the hospital.

The following labels for each socioeconomic group have been used in this report:

Label	Socioeconomic status group
1—Lowest	Most disadvantaged
2	Second most disadvantaged
3	Middle
4	Second least disadvantaged
5—Highest	Least disadvantaged

Suppression of small cell counts in data tables

The AIHW operates under a strict privacy regime, which has its basis in Section 29 of the *Australian Institute of Health and Welfare Act 1987* (AIHW Act). Section 29 of the AIHW Act requires that confidentiality of data relating to persons (living and deceased) and to organisations be maintained. The Privacy Act governs confidentiality of information about living individuals.

The AIHW is committed to reporting that maximises the value of information released for users while being statistically reliable and meeting the legislative requirements described above. Data (cells) in tables may be suppressed in order to maintain the privacy or confidentiality of a person or organisation, or because a proportion or other measure is related to a small number of events and may therefore not be reliable. Data have also been suppressed to avoid attribute disclosure. Some measures have been suppressed if there were fewer than 100 separations in the category being presented (for example, for length of stay and separations rates). The abbreviation 'n.p.' has been used in tables to denote these suppressions. For these tables, the totals include the suppressed information.

Errors, inconsistencies and uncertainties

Due to rounding, the sum of the percentages in tables may not equal 100%.

NHMD data are generally abstracted from records, entered and coded in hospitals, passed to state and territory health departments, then to the AIHW, before being provided to the National Injury Surveillance Unit. Processing occurs at each of these steps. Errors and inconsistencies can arise due to the large number of people and processes involved in providing the data. Some variations occur in reporting and coding, although coding standards, national minimum data sets and other mechanisms have reduced this.

Data quality statement: National Hospital Morbidity Database 2013–14

This section provides a summary of key issues relevant to interpretation of the NHMD. Further information on the quality of the data for earlier years is available in relevant editions of the AIHW's *Australian hospital statistics*.

The full AIHW Data Quality Statement for the NHMD is accessible at

<http://meteor.aihw.gov.au/content/index.phtml/itemId/611030>.

Summary of key issues

- The NHMD is a comprehensive dataset that has records for all separations of admitted patients from essentially all public and private hospitals in Australia.
- A record is included for each separation, not for each patient, so patients who separated more than once in the year have more than 1 record in the NHMD.
- For 2013–14, almost all public hospitals provided data for the NHMD. The exception was an early parenting centre in the Australian Capital Territory. The great majority of private hospitals also provided data (the exceptions being the private free-standing day hospital facilities in the Australian Capital Territory).
- There was some variation between jurisdictions as to whether hospitals that predominantly provide public hospital services, but are privately owned and/or operated, are reported as public or private hospitals. In addition, hospitals may be re-categorised as public or private between or within years.
- There was apparent variation among jurisdictions in the use of statistical discharges and the assignment of care types (for example when a patient's care type changes from acute care to rehabilitation), which may affect the comparability of the data. However, revised definitions for care types were implemented from 1 July 2013 with the aim of improving comparability in care type assignment among jurisdictions. Therefore, recent information presented by care type may not be comparable with data presented for earlier periods.
- There was variation between states and territories in the reporting of separations for *Newborns* (without qualified days or with a mixture of qualified and unqualified days).
- Data on state of hospitalisation should be interpreted with caution because of cross-border flows of patients. This is particularly the case for the Australian Capital Territory: in 2013–14, about 18% of separations for Australian Capital Territory hospitals were for patients who resided in New South Wales.
- Variations in admission practices and policies lead to variation among providers in the number of admissions for some conditions.
- Caution should be used in comparing diagnosis, procedure and external cause data over time, as the classifications and coding standards for those data can change over time.
- The Indigenous status data in the NHMD for all states and territories are considered to be of sufficient quality for statistical reporting for 2010–11, 2011–12, 2012–13 and 2013–14. In 2011–12, an estimated 88% of Indigenous patients were correctly identified in public hospitals. The overall quality of the data provided for Indigenous status is considered to be in need of some improvement and varied between states and territories.

Appendix B: Other work-related hospitalised cases

This Appendix provides brief information on types of cases which met at least 1 of the following criteria, which state (or might imply) the likelihood that it was work-related:

- any *Activity when injured* field = *Engaged in other types of work* (U73.1)
- any *External cause* field = *Work-related condition* (Y96)
- any *Diagnosis* field = *Examination and observation following work accident* (Z04.2).

A large proportion of the cases for which any *External cause* field = *Work-related condition* (Y96) or where any *Diagnosis* field = *Examination and observation following work accident* (Z04.2) were already included in Chapter 2 or Chapter 3 of this report, or both. In cases that had been *Engaged in other types of work* the type of activity could not be determined sufficiently well to allow confident interpretation of the cases as being work-related.

Hospitalised injury resulting from other types of work

For the period from 2006–07 to 2013–14 there were 135,018 hospitalised cases for which the activity code in the hospital record indicated that the person was injured *While engaged in other types of work* and where the principal diagnosis was in the range S00–T75, T79. This figure excludes cases of this type which were funded by workers' compensation. The ICD-10-AM inclusion criteria specify that this category should be used for cases involving domestic duties such as caring for children and relatives, cleaning, cooking, gardening, household maintenance and other duties for which one would not normally gain an income. Also included are learning activities such as attending a school session or lesson or undergoing some other form of education.

When comparing these cases to the equivalent work-related hospitalised injury cases, a number of significant differences emerge. The percentage of hospitalised injury cases involving other types of work which were funded by workers' compensation was only 2.3%, compared to over 62% of injury cases in which the reported activity was *While working for income*. When compared to hospitalised injury cases that were working for income, hospitalised injury cases involving *Other types of work* were more likely to involve females (46% compared to 15%), more likely to be aged 65 and over (43% compared to 6%) and more likely to be aged 15 or under (3.8% compared to 0.3%).

When comparing external causes of injury, people in hospitalised injury cases involving other types of work were more likely to be injured as a result of a fall (48% compared to 18%), but less likely to be involved in a transport crash (1% compared to 13%). Finally, when comparing place of occurrence of injury, people in hospitalised injury cases involving other types of work were much more likely to be injured in a home setting (67% compared to 3%).

Hospitalised cases with diagnosis codes for *Examination and observation following work accident* or *Work-related condition*

For the period from 2006–07 to 2013–14 there were 5,627 hospitalised cases with a diagnosis code Z04.2 (386) or an external cause code Y96 (4,881). Of these cases, 65% were male and over 97% were aged 15–64. Over half of these cases (55%) had a principal diagnosis indicating a disease of the musculoskeletal system and connective tissue with the most common condition being dorsalgia (back pain). Just on 81% (4,265) of these cases were funded by workers' compensation and are therefore included in Chapter 2 of this report, while a further 6% (297) are included in Chapter 3 of this report.

Appendix C: Additional tables

Table C1: Hospitalised cases funded by workers' compensation, excluding those with injury as the principal diagnosis, according to whether an additional diagnosis of injury is present, by diagnosis group, Australia, 2006–07 to 2013–14

	Additional diagnosis of injury			
Principal diagnosis group	**No**	**Yes**	**Total**	**Injury %**
Certain infectious and parasitic diseases	464	102	566	18.0
Neoplasms	3,387	136	3,523	3.9
Diseases of the blood and blood-forming organs and certain disorders involving the immune system	249	18	267	6.7
Endocrine, nutritional and metabolic diseases	869	96	965	9.9
Mental and behavioural disorders	33,519	865	34,384	2.5
Diseases of the nervous system	24,742	1,336	26,078	5.1
Diseases of the eye and adnexa	1,630	260	1,890	13.8
Diseases of the ear and mastoid process	382	37	419	8.8
Diseases of the circulatory system	2,883	376	3,259	11.5
Diseases of the respiratory system	2,164	291	2,455	11.9
Diseases of the digestive system	30,660	669	31,329	2.1
Diseases of the skin and subcutaneous tissue	5,744	2,552	8,296	30.8
Diseases of the musculoskeletal system and connective tissue	217,859	14,371	232,230	6.2
Diseases of the genitourinary system	1,611	293	1,904	15.4
Pregnancy, childbirth and the puerperium	120	5	125	4.0
Certain conditions originating in the perinatal period	3	0	3	0.0
Congenital malformations, deformations and chromosomal abnormalities	203	12	215	5.6
Symptoms, signs and abnormal clinical and laboratory findings, nec	5,205	795	6,000	13.3
Factors influencing health status and contact with health services	48,328	16,759	65,087	25.7
Principal diagnosis not present	294	0	294	0.0
Total	**380,316**	**38,973**	**419,289**	**9.3**

Table C2: Number of workers' compensation funded hospitalised cases, by injury and musculoskeletal disorders and other diseases, by year of hospitalisation, Australia, 2006–07 to 2013–14

	Year of hospitalisation							
	2006–07	**2007–08**	**2008–09**	**2009–10**	**2010–11**	**2011–12**	**2012–13**	**2013–14**
Males								
Injury and musculoskeletal disorders	37,685	38,519	39,972	39,649	41,214	43,081	40,187	39,547
Other diseases	14,534	13,848	14,547	15,586	16,470	18,353	17,675	16,837
Total	52,219	52,367	54,519	55,235	57,684	61,434	57,862	56,384
Injury and musculoskeletal %	72.2	73.6	73.3	71.8	71.4	70.1	69.5	70.1
Females								
Injury and musculoskeletal disorders	12,315	12,611	13,302	13,726	14,707	15,515	14,373	14,291
Other diseases	6,144	5,765	6,517	7,329	8,148	9,256	8,350	7,700
Total	18,459	18,376	19,819	21,055	22,855	24,771	22,723	21,991
Injury and musculoskeletal %	66.7	68.6	67.1	65.2	64.3	62.6	63.3	65.0
Persons								
Injury and musculoskeletal disorders	50,000	51,130	53,275	53,376	55,921	58,596	54,560	53,838
Other diseases	20,678	19,613	21,064	22,915	24,618	27,609	26,025	24,537
Total	70,678	70,743	74,339	76,291	80,539	86,205	80,585	78,375
Injury and musculoskeletal %	70.7	72.3	71.7	70.0	69.4	68.0	67.7	68.7

Glossary

Definitions in this glossary contain an identification number from the Metadata Online Registry (METeOR). METeOR is Australia's central repository for health, community services and housing assistance metadata, or 'data about data'. It provides definitions for data for health and community services-related topics and specifications for related national minimum data sets (NMDSs), such as the NMDSs that form the basis of this report. METeOR can be viewed on the AIHW website at <www.aihw.gov.au>.

additional diagnosis: A condition or complaint either coexisting with the principal diagnosis or arising during the episode of admitted patient care, episode of residential care or attendance at a health care establishment. METeOR identifier: 391322.

admitted patient: A patient who undergoes a hospital's formal admission process to receive treatment and/or care. This treatment and/or care is provided over a period of time and can occur in hospital and/or in the person's home (for hospital-in-the-home patients). METeOR identifier: 268957.

age-standardisation: A set of techniques used to remove, as far as possible, the effects of differences in age when comparing 2 or more populations.

episode of care: The period of admitted patient care between a formal or statistical admission and a formal or statistical separation, characterised by only 1 care type (see **care type** and **separation**). METeOR identifier: 270174 (Care type); METeOR identifier: 268956 (Episode of admitted patient care).

external cause: The environmental event, circumstance or condition as the cause of injury, poisoning and other adverse effect. METeOR identifier: 361926.

hospital: A health-care facility established under Australian Government, state or territory legislation as a hospital or a free-standing day procedure unit and authorised to provide treatment and/or care to patients. METeOR identifier: 268971.

International Classification of Diseases and Related Health Conditions (ICD): The World Health Organization's internationally accepted classification of diseases and related health conditions. The 10th revision, Australian modification (ICD-10-AM) is currently in use in Australian hospitals for admitted patients.

length of stay: The length of stay of an overnight patient is calculated by subtracting the date the patient is admitted from the date of separation and deducting days the patient was on leave. A same-day patient is allocated a length of stay of 1 day. METeOR identifier: 269982.

patient days: The total number of days for patients who were admitted for an episode of care and who separated during a specified reference period. A patient who is admitted and separated on the same day is allocated 1 patient day. METeOR identifier: 270045.

principal diagnosis: The diagnosis established, after study, to be chiefly responsible for occasioning an episode of admitted patient care. METeOR identifier: 391326.

private hospital: A privately owned and operated institution, catering for patients who are treated by a doctor of their own choice. Patients are charged fees for accommodation and other services provided by the hospital and relevant medical and paramedical practitioners. Acute care and psychiatric hospitals are included, as are private free-standing day hospital facilities.

public hospital: A hospital controlled by a state or territory health authority. Public hospitals offer free diagnostic services, treatment, care and accommodation to all eligible patients.

separation: An episode of care for an admitted patient, which can be a total hospital stay (from admission to discharge, transfer or death) or a portion of a stay beginning or ending in a change of type of care (for example, from acute to rehabilitation). Separation also means the process by which an admitted patient completes an episode of care either by being discharged, dying, transferring to another hospital or changing type of care.

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List of tables

List of figures

There were 617,755 hospitalised cases funded by workers' compensation in Australia in the period from 2006–07 to 2013–14, with 72% being male and 96% aged 15–64. Almost 38% of these cases were hospitalised primarily due to a musculoskeletal-related condition while 32% were hospitalised primarily due to injury and poisoning.

There were 234,104 hospitalised cases reported as work related over this period, with 61% being funded by workers' compensation.

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