

3 Unintentional injury

Most community injury cases separating from hospital in 2004–05 were due to unintentional external causes (85.9%, $n = 305,910$). The age-standardised rate of unintentional injury cases was 1,496.6 per 100,000 population. A higher proportion of unintentional injury cases involved males (59.0%, $n = 180,415$) and males had a higher rate of hospitalised unintentional injuries (1,820.8 per 100,000) than females (1,138.6 per 100,000, giving a M:F rate ratio of 1.6 to 1).

3.1 Transportation injury cases

ICD-10-AM inclusion criteria:

- Principal diagnosis [S00–T75](#) or [T79](#), and
- First external cause [V01–V99](#), and
- Mode of admission other than ‘transfer from another acute hospital’.

Table 3.1: Key indicators for hospitalised unintentional transport injury: males, females and persons, Australia 2004–05

Key indicators	Males	Females	Persons ^(a)
Total number of hospital separations due to transport injury	38,341	17,713	56,056
Transport separations as proportion of all community injury separations	17.1%	11.0%	14.6%
Estimated number of transport injury cases ^(b)	34,738	16,269	51,009
Cases per 100,000 population	345.6	160.1	252.4
Cases per 100,000 population—age-standardised ^(c)	345.2	160.4	253.4
Total patient-days due to transport injury ^{(d), (e), (f)}	157,395	70,837	228,234
Mean patient-days per case	4.5	4.4	4.5

(a) Includes 2 separations for which sex was not reported.

(b) Excludes records with a mode of admission of ‘transfer from another acute hospital’.

(c) Standardised to the Australian estimated resident population 30th June 2001.

(d) Includes records with a mode of admission of ‘transfer from another acute hospital’ as contributing to hospital burden due to injury.

(e) Includes 2 days of patient care for which sex was not reported.

(f) Excludes 1 separation with length of stay 4,229 days.

This chapter defines *unintentional* transportation injuries as community injuries (principal diagnosis S00–T75 or T79) that have a first external cause in the range V01–V99 (and a mode of admission other than transfer from another acute hospital to avoid double-counting of cases). Such cases include those due to land transport (e.g. accidents involving pedestrians, cyclists, cars, trucks, trains etc. $n = 49,638$), water transport (e.g. boats, water-skis, surf-boards etc. $n = 747$) and air transport (e.g. helicopters, planes, gliders, hot air balloons, $n = 131$).

This chapter excludes transport-related injury cases that were not considered to be unintentional, including: intentional self-harm by jumping or lying before a moving object ($n = 60$), intentional self-harm by crashing of motor vehicle ($n = 54$), assault by pushing or placing victim before a moving object and assault by crashing of motor vehicle ($n = 35$),

and falling, lying or running before or into a moving object, undetermined intent and crashing of motor vehicle, undetermined intent ($n = 5$). Sequelae of transport accidents ($n = 74$) are not included here because the focus of this chapter is injury incident in 2004–05.

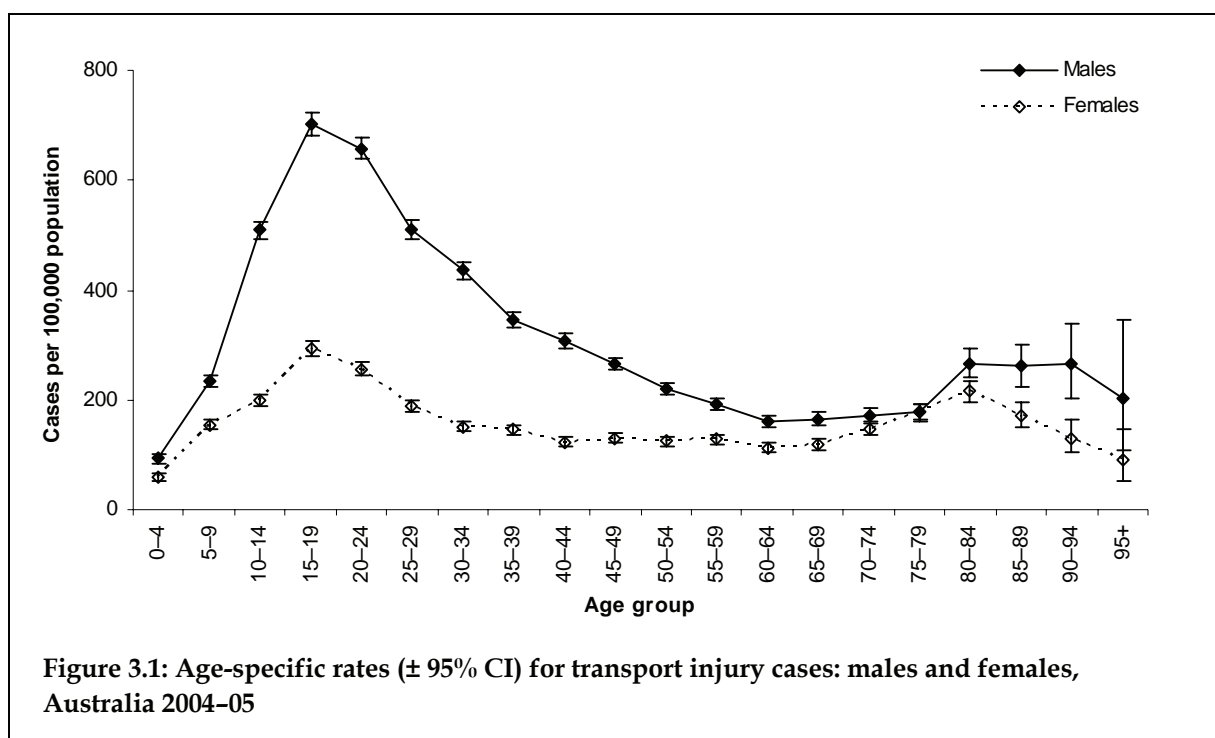
Using the definition above, then, an estimated 51,009 hospitalised injury cases were due to transportation-related external causes in 2004–05 (Table 3.1). The age-standardised rate of hospitalised transport injuries was 253.4 per 100,000 population.

Transport—age and sex

As for all unintentional injuries, the majority of hospitalised transport injury cases involved males (68.1%, $n = 34,738$). Accordingly, the age-standardised rate of transport injuries was also higher for males (345.2 per 100,000) than for females (160.4 per 100,000), a M:F rate ratio of 2.2.

Age-specific rates of hospitalised transport injury were higher for males than for females at every age other than for the 75–79 years group, where the rates were equal (Figure 3.1). As seen in previous years (Berry & Harrison 2006a; Berry & Harrison 2007a; see also Harrison & Berry 2007), even males 0–4 years of age had a higher rate of hospitalisation due to transport injuries than females. The overall pattern of rates of hospitalised transport injuries by age was analogous for both males and females, however, with the highest age-specific rate observed for the 15–19 years age group. For males aged 15–19 years the age-specific rate of hospitalised transport injuries was 702.4 cases per 100,000 population while for females of this age the rate was 292.8 per 100,000. A second, smaller peak in rates of transport injuries were observed for both males and females in the 80–84 years age group.

More than half of all unintentional transport injury cases in 2004–05 involved people aged between 10–34 years (54.1%, $n = 27,614$).



Transport—external cause

For all persons admitted to hospital due to transport-related injury cases, 'car occupant injured in a transport accident' (V40–V49) was the most common type of external cause reported (35.9%, $n = 18,331$). The pattern of transport-related external causes was quite different for males and females however (Table 3.2). Injured car occupants accounted for over half of the cases involving females (52.8%) but accounted for less than three in ten transport-related cases for males (28.0%). Conversely, 'motorcycle rider injured in transport accidents' (V20–V29) was the most common type of transport external cause for males (31.1% of cases) while this was only the fifth most common cause of transport injuries for females (6.1%). Similarly, a much higher proportion of cases involving males were due to being a pedal cyclist involved in a transport accidents (20.0% of cases) than for females (10.3%).

On the other hand, a higher proportion of transport injuries involving females were attributed to being an 'animal-rider or occupant of animal-drawn vehicle injured in transport accident' (V80, 13.0%) than for males (3.4%). It is assumed that for most, if not all, of these cases, horses were the animal in question.

Table 3.3 reports the mode of transport of the person injured in a hospitalised transport injury case in 2004–05. Unsurprisingly, car occupants were the people most commonly injured in transport accidents in all age groups but the very youngest. Children aged 0–14 were most commonly injured in transport accidents when riding a pedal cycle ($n = 3,816$), accounting for slightly less than half (44.7%) of transport injuries at this age. Pedestrians accounted for one in five transport cases for people aged 65 years and older ($n = 819$, 18.0%), whereas pedestrians accounted for less than one in ten cases (5.5–8.1%) for younger adults. Similarly, nearly a quarter of children aged 0–4 years (23.2%) hospitalised for injuries sustained in transport accidents in 2004–05 were pedestrians.

Table 3.2: Mode of transport of injured person for unintentional transport injury cases: males, females and persons, Australia 2004–05

Mode of transport	Males	Females	Persons
Pedestrian	2,341 (6.7%)	1,618 (9.9%)	3,959 (7.8%)
Pedal cycle	6,950 (20.0%)	1,669 (10.3%)	8,619 (16.9%)
Motorcycle	10,818 (31.1%)	1,000 (6.1%)	11,818 (23.2%)
Three-wheeled motor vehicle	41 (0.1%)	26 (0.2%)	67 (0.1%)
Car	9,741 (28.0%)	8,588 (52.8%)	18,331 (35.9%)
Pick-up truck or van	426 (1.2%)	118 (0.7%)	544 (1.1%)
Heavy transport vehicle	721 (2.1%)	53 (0.3%)	774 (1.5%)
Bus	147 (0.4%)	291 (1.8%)	438 (0.9%)
Animal or animal-driven vehicle	1,170 (3.4%)	2,113 (13.0%)	3,283 (6.4%)
Other land transport	1,313 (3.8%)	492 (3.0%)	1,805 (3.5%)
<i>Total land transport</i>	<i>33,668 (96.9%)</i>	<i>15,968 (98.1%)</i>	<i>49,638 (97.3%)</i>
Water transport	593 (1.7%)	154 (0.9%)	747 (1.5%)
Air & space transport	121 (0.3%)	10 (0.1%)	131 (0.3%)
Other & unspecified transport	356 (1.0%)	137 (0.8%)	493 (1.0%)
Total	34,738	16,269	51,009

* Persons includes 2 cases for which sex was not reported.

Table 3.3: Mode of transport of injured person for unintentional transport injury cases by age, Australia 2004–05

Mode of transport	0–4	5–14	15–24	25–44	45–64	65+	All ages †
Pedestrian	224	507	742	989	678	819	3,959
Pedal cycle	298	3,518	1,630	1,801	1,066	306	8,619
Motorcycle	41	1,543	3,754	4,899	1,402	179	11,818
Three-wheeled motor vehicle	*	*	13	8	7	35	67
Car	263	722	5,691	5,761	3,445	2,448	18,331
Pick-up truck or van	13	37	139	179	136	40	544
Heavy transport vehicle	*	16	60	359	285	*	774
Bus	9	20	37	52	87	233	438
Animal or animal-driven vehicle	37	815	743	1,057	558	73	3,283
Other land transport	30	211	368	527	410	259	1,805
Water transport	13	49	133	305	195	52	747
Air & space transport	0	*	10	74	43	*	131
Other & unspecified transport	36	138	108	103	61	47	493
Total	966	7,580	13,428	16,114	8,373	4,547	51,009

Note: Shading denotes highest category for each age group.

* Small cell counts have been suppressed.

† All ages includes 1 case for which age was not reported.

Transport—place and activity

Not surprisingly, more than half of all hospitalised unintentional transport injury cases were reported to have taken place on public streets and highways (57.8%, $n = 29,476$). Nearly all of these places were public roadways (54.0% of all cases, see Table 3.4). Most likely due to the higher proportion of females injured in car accidents, a greater proportion of females were injured on roadways (61.8% vs. 50.4% cases for males).

Unlike many other types of community injury, very few transport cases occurred in and around the home; 0.8% of cases occurred in the driveway of homes and 2.1% occurred in ‘other and unspecified’ places in the home. A similar proportion of cases (2.8%, $n = 1,414$) were reported to have occurred on farms and 2.6% of transport cases occurred on racetracks and racecourses ($n = 1,344$). A quarter of all unintentional transport injury cases had an unspecified place of occurrence (25.4%, $n = 12,958$).

More than half of all hospitalised transport injury cases had an unspecified activity recorded (54.9%, $n = 27,989$) and similar proportions of cases for both males and females had an unspecified activity code reported (Table 3.5). One in five transport cases reported an ‘other specified activity’ code (22.9%, $n = 11,703$), but no further detail is available for cases in this category.

The most frequent specified activity category for transport injury cases was ‘while engaged in sport’ (15.1% of cases, $n = 7,709$). Wheeled motor sports (e.g. motocross, rallying and riding All Terrain Vehicles) accounted for 5.2% of all transport injuries and wheeled non-motor sports (e.g. cycling and skate-boarding) accounted for another 5.6% of cases. Far greater proportions of cases involving males were ascribed these activity codes than cases involving females. Conversely, a greater proportion of cases involving females were attributed to equestrian sporting activities (6.5% vs. 1.4% of male cases).

Table 3.4: Place of occurrence for unintentional transport injury cases: males, females and persons, Australia 2004–05

Place of occurrence	Males	Females	Persons *
Driveway to home	234 (0.7%)	188 (1.2%)	422 (0.8%)
Other & unspecified place in home	736 (2.1%)	326 (2.0%)	1,062 (2.1%)
Residential institution	26 (0.1%)	20 (0.1%)	46 (0.1%)
School	45 (0.1%)	19 (0.1%)	64 (0.1%)
Health Service area	* (0.0%)	* (0.0%)	19 (0.0%)
Other specified institution & public administrative area	* (0.0%)	* (0.0%)	15 (0.0%)
Sporting grounds (outdoor)	174 (0.5%)	40 (0.2%)	214 (0.4%)
Racetrack & racecourse	1,209 (3.5%)	135 (0.8%)	1,344 (2.6%)
Equestrian facility	18 (0.1%)	88 (0.5%)	106 (0.2%)
Skating rink	100 (0.3%)	10 (0.1%)	110 (0.2%)
Other & unspecified sports & athletic areas	161 (0.5%)	23 (0.1%)	184 (0.4%)
<i>Total sports & athletic areas</i>	<i>1,662 (4.8%)</i>	<i>296 (1.8%)</i>	<i>1,958 (3.8%)</i>
Roadway	17,513 (50.4%)	10,050 (61.8%)	27,565 (54.0%)
Footpath (sidewalk)	338 (1.0%)	230 (1.4%)	568 (1.1%)
Cycleway	116 (0.3%)	39 (0.2%)	155 (0.3%)
Other specified public highway, street or road	355 (1.0%)	153 (0.9%)	508 (1.0%)
Unspecified public highway, street or road	456 (1.3%)	224 (1.4%)	680 (1.3%)
<i>Total street & highway</i>	<i>18,778 (54.1%)</i>	<i>10,696 (65.7%)</i>	<i>29,476 (57.8%)</i>
Trade & service area	170 (0.5%)	94 (0.6%)	264 (0.5%)
Industrial & construction area	187 (0.5%)	8 (0.0%)	195 (0.4%)
Farm	1,071 (3.1%)	343 (2.1%)	1,414 (2.8%)
Area of still water	19 (0.1%)	5 (0.0%)	24 (0.0%)
Stream of water	82 (0.2%)	20 (0.1%)	102 (0.2%)
Large area of water	290 (0.8%)	89 (0.5%)	379 (0.7%)
Beach	201 (0.6%)	47 (0.3%)	248 (0.5%)
Forest	250 (0.7%)	24 (0.1%)	274 (0.5%)
Desert & other specified countryside	382 (1.1%)	81 (0.5%)	463 (0.9%)
Parking lot	77 (0.2%)	78 (0.5%)	155 (0.3%)
Other specified place of occurrence	1,125 (3.2%)	315 (1.9%)	1,440 (2.8%)
Unspecified place of occurrence	9,355 (26.9%)	3,603 (22.1%)	12,958 (25.4%)
Place not reported/not applicable	24 (0.1%)	7 (0.0%)	31 (0.1%)
Total	34,738	16,269	51,009

* Persons includes 2 cases for which sex was not reported.

* Small cell counts have been suppressed.

Table 3.5: Reported activity for unintentional transport injury cases: males, females and persons, Australia 2004–05

Activity	Males	Females	Persons *
Boating sports	98 (0.3%)	37 (0.2%)	135 (0.3%)
Individual water sports	179 (0.5%)	22 (0.1%)	201 (0.4%)
Equestrian activities	482 (1.4%)	1,050 (6.5%)	1,532 (3.0%)
Wheeled motor sports	2,486 (7.2%)	160 (1.0%)	2,646 (5.2%)
Wheeled non-motored sports	2,310 (6.6%)	532 (3.3%)	2,842 (5.6%)
Aero sports	58 (0.2%)	5 (0.0%)	63 (0.1%)
Other & unspecified sports	221 (0.6%)	69 (0.4%)	290 (0.6%)
<i>Total sports</i>	<i>5,834 (16.8%)</i>	<i>1,875 (11.5%)</i>	<i>7,709 (15.1%)</i>
While engaged in leisure	663 (1.9%)	249 (1.5%)	912 (1.8%)
While working for income	1,884 (5.4%)	292 (1.8%)	2,176 (4.3%)
While engaged in other types of work	183 (0.5%)	59 (0.4%)	242 (0.5%)
While resting, sleeping, eating, etc.	133 (0.4%)	70 (0.4%)	203 (0.4%)
Other specified activity	7,645 (22.0%)	4,058 (24.9%)	11,703 (22.9%)
Unspecified activity	18,343 (52.8%)	9,644 (59.3%)	27,989 (54.9%)
Activity not reported/not applicable	53 (0.2%)	22 (0.1%)	75 (0.1%)
Total	34,738	16,269	51,009

* Persons includes 2 cases for which sex was not reported.

Transport—principal diagnosis

The proportions of principal diagnoses assigned to transport injury cases in 2004–05 were generally similar for both males and females and for most age groups; head injuries were the most common principal diagnoses for males and females (accounting for nearly a quarter of cases overall, see Table 3.6) and for most age groups (Table 3.7). For the 5–14 years age group an injury to the elbow and forearm was the most common type of principal diagnosis (although head injuries were only slightly fewer in number for people of this age). For people aged 65 years and older, a much larger number of transport injury cases were assigned a principal diagnosis of injuries to the thorax ($n = 1,106$) than were given a diagnosis of head injuries ($n = 743$).

Of note, higher proportions of transport cases involving females were coded with principal diagnoses indicating injuries to the neck (11.5%) than for males (5.6%), while higher proportions of cases involving males were coded with principal diagnoses indicating injuries to the knee and lower leg (15.2%) than for females (10.4%). This was due to the differences in the type of vehicles involved in male and female cases; neck injuries were a frequent result of transport accidents involving cars and animals (more common in females) while knee and lower leg injuries were a frequent result of motorcycle accidents (more common males).

Nearly half of all principal diagnoses assigned to transport injury cases described a fracture (47.0%, $n = 23,964$). Fractures were more frequent for cases involving males (49.6% of cases) than for females (41.4%) and were the most common type of injury sustained in a transport accident in every age group. Open wounds were also common for transport injuries, accounting for one in ten hospitalised cases of this type (10.7%, $n = 5462$).

Table 3.6: Principal diagnosis groups for transport injury cases: males, females and persons, Australia 2004–05

Principal diagnosis	Males	Females	Persons †
Injuries to the head	8,015 (23.1%)	3,702 (22.8%)	11,717 (23.0%)
Injuries to the neck	1,935 (5.6%)	1,869 (11.5%)	3,804 (7.5%)
Injuries to the thorax	3,188 (9.2%)	2,000 (12.3%)	5,190 (10.2%)
Injuries to the abdomen, lower back, lumbar spine & pelvis	3,074 (8.8%)	1,946 (12.0%)	5,020 (9.8%)
Injuries to the shoulder & upper arm	3,404 (9.8%)	1,256 (7.7%)	4,660 (9.1%)
Injuries to the elbow & forearm	4,293 (12.4%)	1,816 (11.2%)	6,109 (12.0%)
Injuries to the wrist & hand	2,031 (5.8%)	551 (3.4%)	2,582 (5.1%)
Injuries to the hip & thigh	1,701 (4.9%)	701 (4.3%)	2,402 (4.7%)
Injuries to the knee & lower leg	5,284 (15.2%)	1,700 (10.4%)	6,984 (13.7%)
Injuries to the ankle & foot	1,188 (3.4%)	442 (2.7%)	1,630 (3.2%)
Injuries involving multiple body regions	84 (0.2%)	46 (0.3%)	130 (0.3%)
Injuries to unspecified parts of trunk, limb or body region	268 (0.8%)	165 (1.0%)	433 (0.8%)
Burns	142 (0.4%)	40 (0.2%)	182 (0.4%)
Other principal diagnoses	131 (0.4%)	35 (0.2%)	166 (0.3%)
Total †	34,738	16,269	51,009

† Totals include 2 cases for which sex was not reported and 4 cases from categories too small to publish.

Table 3.7: Principal diagnosis groups for transport injury cases by age, Australia 2004–05

Principal diagnosis	0–4	5–14	15–24	25–44	45–64	65+	All ages †
Injuries to the head	490	2,010	3,702	3,290	1,481	743	11,717
Injuries to the neck	18	176	1,030	1,485	770	325	3,804
Injuries to the thorax	19	135	885	1,588	1,457	1,106	5,190
Injuries to the abdomen, lower back, lumbar spine & pelvis	64	610	1,385	1,604	888	469	5,020
Injuries to the shoulder & upper arm	80	627	1,106	1,715	819	313	4,660
Injuries to the elbow & forearm	87	2,113	1,336	1,564	711	298	6,109
Injuries to the wrist & hand	23	295	802	962	402	98	2,582
Injuries to the hip & thigh	49	361	583	628	353	428	2,402
Injuries to the knee & lower leg	67	938	1,824	2,419	1,129	607	6,984
Injuries to the ankle & foot	36	207	520	576	211	80	1,630
Injuries involving multiple body regions	*	*	38	54	17	10	130
Injuries to unspecified parts of trunk, limb or body region	8	44	128	123	81	49	433
Burns	18	43	46	50	22	*	182
Certain early complications of trauma	*	12	37	44	26	15	137
Other principal diagnoses	0	*	6	12	6	*	29
Total †	966	7,580	13,428	16,114	8,373	4,547	51,009

Note: Shading denotes highest category for each age group.

* Small cell counts have been suppressed.

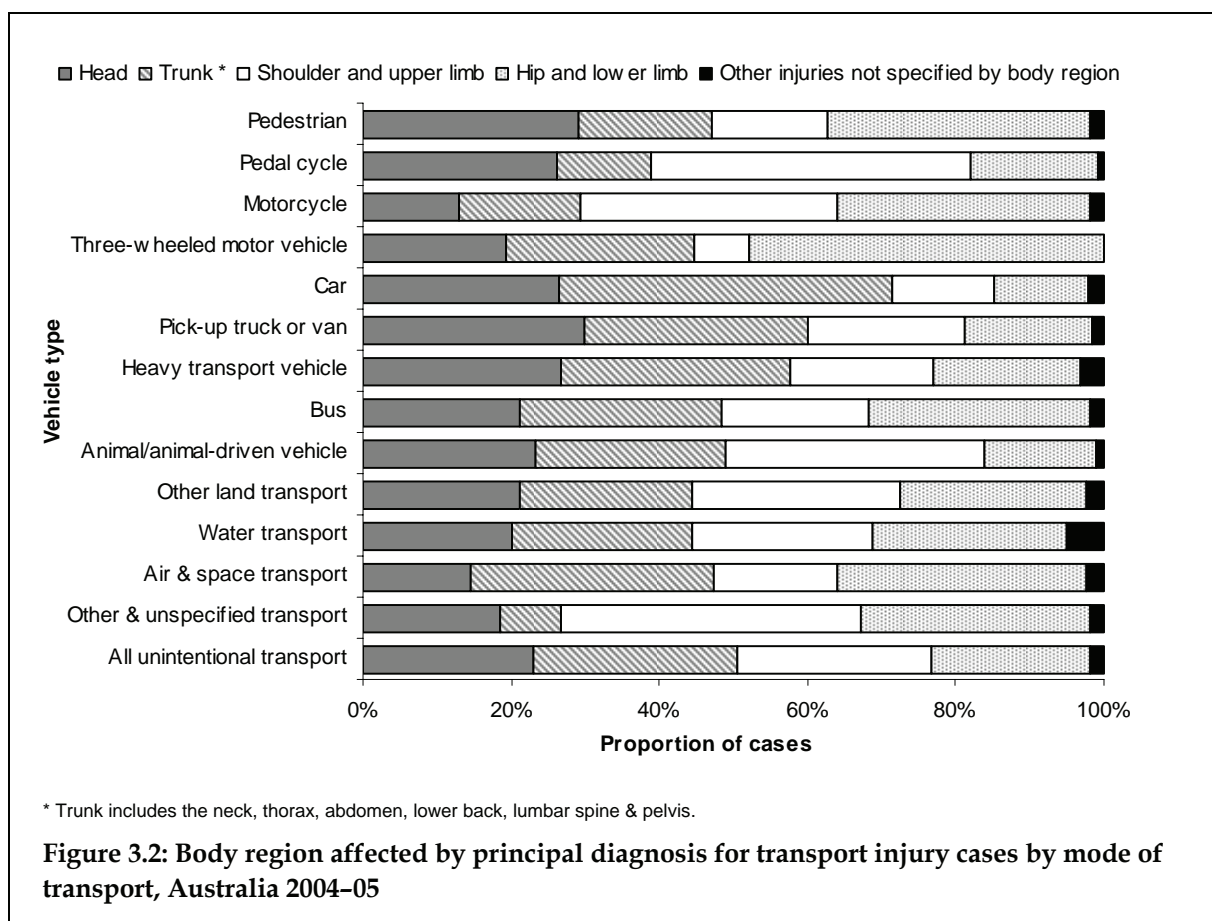
† Totals include 1 case for which age was not reported and 4 cases from categories too small to publish.

Transport—body region

Analyses of transport injury diagnoses by body region injured presents a somewhat different picture to that described above due to the aggregation of many groups of principal diagnoses into five classes (see Figure 3.2). Injuries to the trunk region and shoulder and upper limb region accounted for higher proportions of transport cases (27.5% and 26.2%, respectively) than head injuries (23.0%), the most frequent principal diagnosis described in the previous section.

Larger proportion of cases involving females (35.7%) were injuries to the trunk than for males (23.6%), while males sustained a higher proportion of injuries to the shoulder and upper limb (28.0%) regions than females (22.3%). Higher frequencies of shoulder and upper limb injuries in males relates to both the much higher rates of transport injury for males aged 5–14 years, when injuries to the elbow and forearm are most common, and the frequency of shoulder and upper limb injuries as the result of motorcycle accidents (Figure 3.2).

While case numbers are small overall, Figure 3.2 indicates that about half (47.8%, $n = 32$) of injuries for occupants of three-wheeled motor vehicles were injuries to the hip and lower limbs, injuries common for older people (see Table 2.7). People aged 65 years and older accounted for 52.2% of transport injuries for occupants of three-wheeled motor vehicles and as such, these cases may relate to accidents involving motor-scooters (or ‘gophers’). These vehicles are more correctly coded as ‘pedestrian conveyances’ in the fourth edition of the ICD-10-AM (NCCH 2004), and as such are indistinguishable from prams, roller-skates and skateboards, but will be more readily recognisable in future editions of the ICD-10-AM.



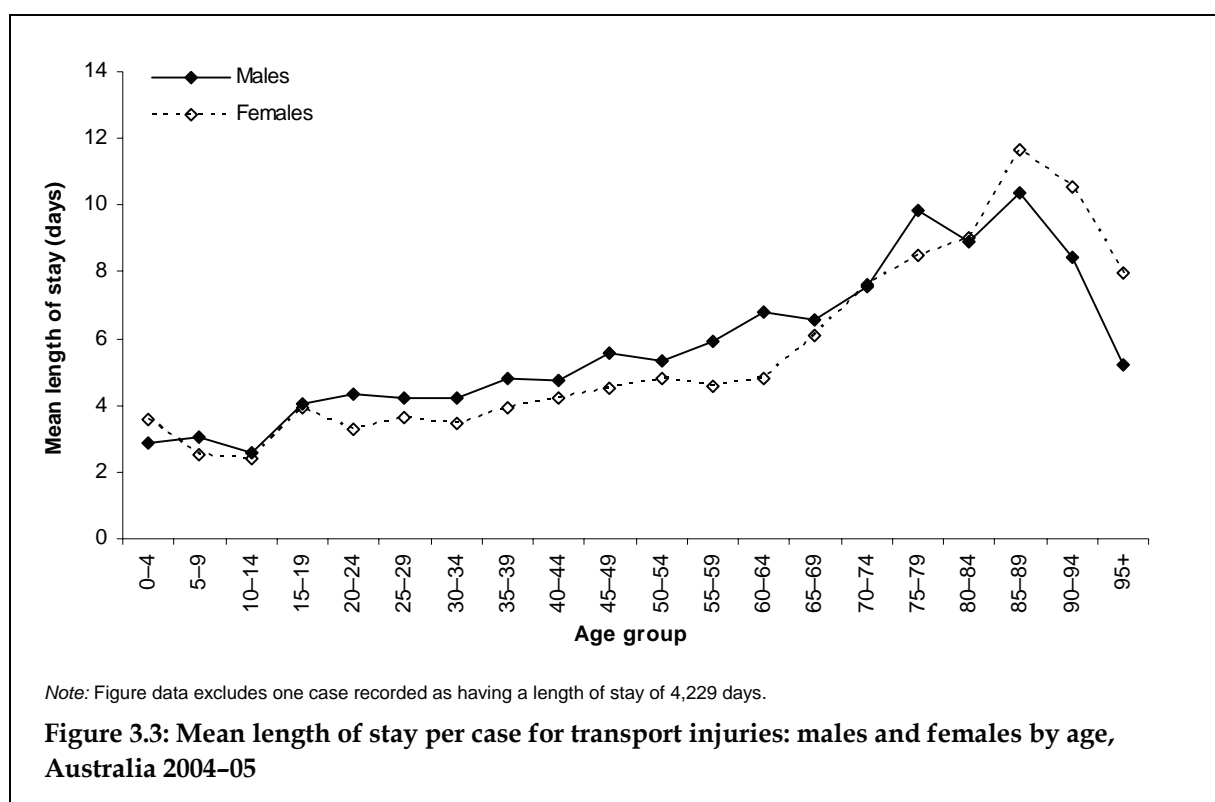
Transport—length of stay

Unlike the discussion of hospitalised injury *cases* due to unintentional transport accident external causes, the analysis of patient-days here includes inward transfer separations as these transfers contribute to the total burden of hospital care due to transport injury.

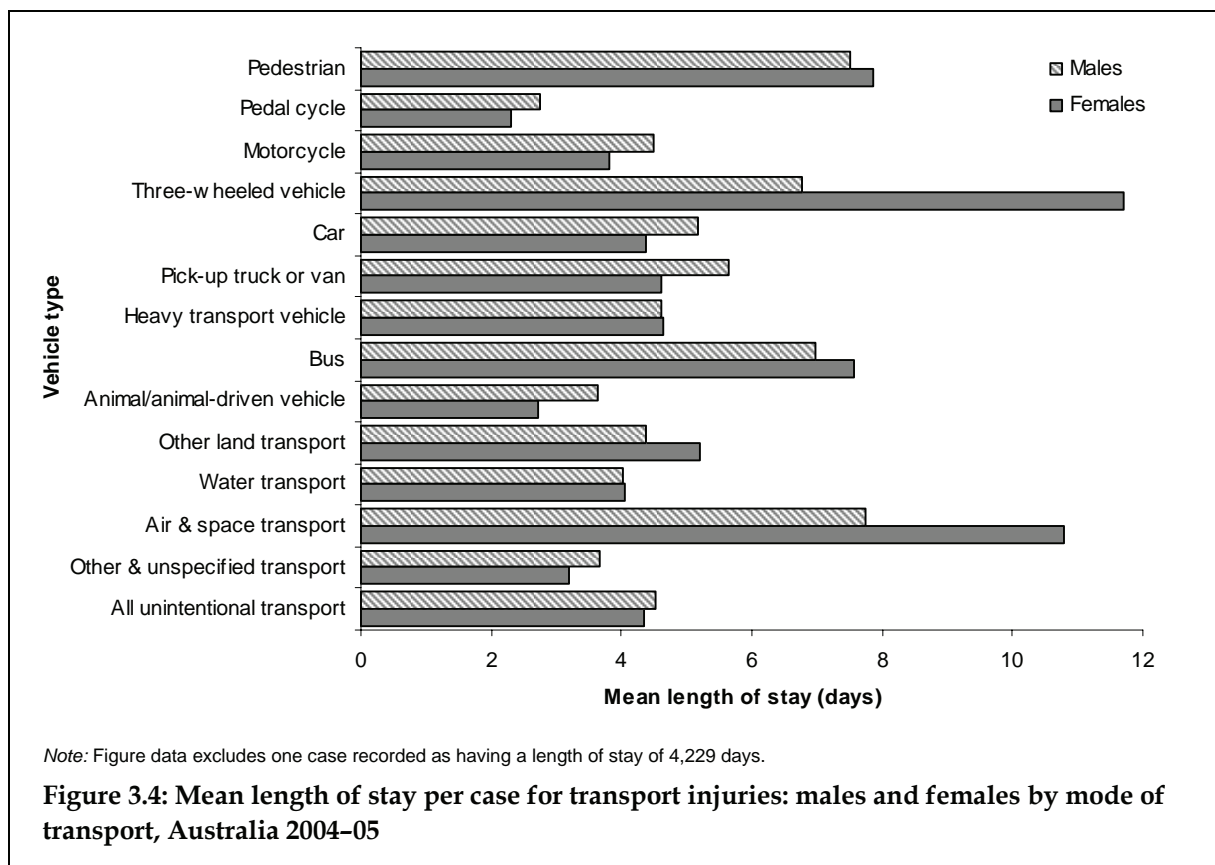
The total number of patient-days attributed to hospitalised transport injuries in 2004–05 was 228,234*, 16.0% of all community injury patient-days. Three in ten separations attributed to transport injury were discharged from hospital on the same day as admitted (30.6%, $n = 17,149$) and nearly six in ten transport separations, including the same-day cases, had a length of stay of only one day (58.2%, $n = 32,640$).

The mean length of stay for transport injury cases was a little longer than for community injuries overall; 4.5 days. The mean length of stay per transport injury case for males (4.5 days) was only slightly longer than that for females (4.4 days). Mean lengths of stay increased with age until the age of 89 years (Figure 3.3).

As discussed above, many occupants of three-wheeled motor vehicles were older people and, accordingly, it is not surprising to observe that this mode of transport had the longest mean length of stay per case, 8.7 days. Cases involving pedestrians, occupants of buses, and 'air and space' transport (chiefly hang-gliders, gliders and parachutists) also had quite long lengths of stay per case for both males and females (see Figure 3.4). The shortest lengths of stay were observed for pedal cyclists and people injured in animal-related transport accidents, types of cases that were particularly common for younger people.



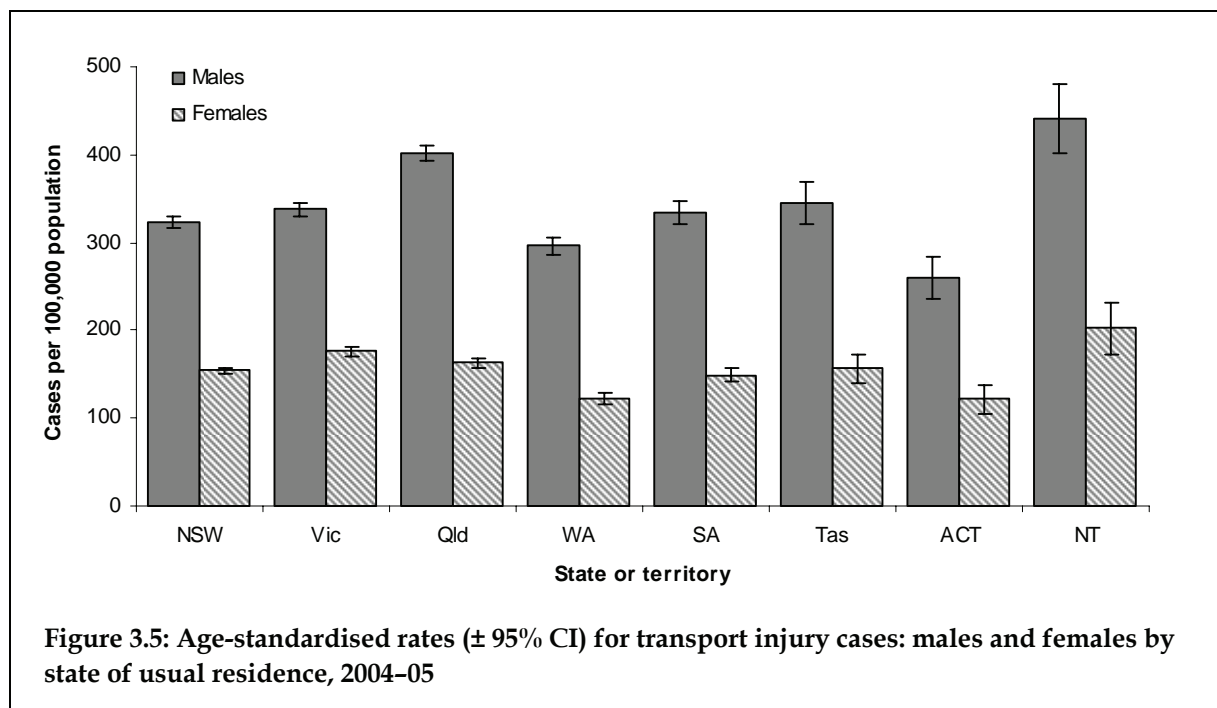
* One separation was considered to be an outlier, having a recorded length of stay of 4,229 days (over 11 years), and omitted from this analysis.



Transport—state of usual residence

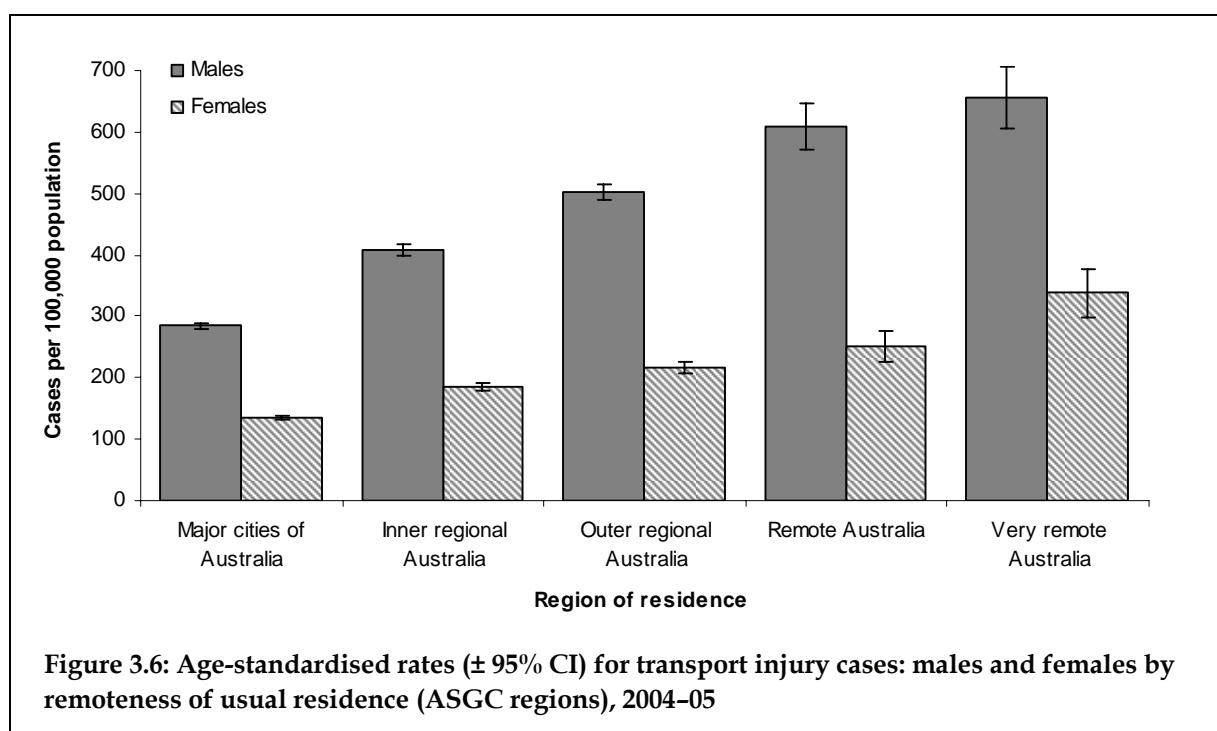
Similar to the analysis of all community injury cases, residents of the Northern Territory had the highest rate of hospitalised transport injury cases in 2004-05 (327.8 per 100,000 population) and rates of transport injury involving residents of Queensland were the second highest observed; 283.2 per 100,000. Both of these rates were significantly higher than that observed for the nation as a whole. The lowest rate of hospitalised injury cases in 2004-05 was observed for residents of the Australian Capital Territory (191.4 per 100,000 population) but this rate was not considered to be significantly lower than that for residents of Western Australia (209.9 per 100,000).

While the rates of cases involving females were lower than those for males, the patterns of rates of transport injury cases by state of usual residence were similar for both males and females (Figure 3.5). The only exception was that instead of females resident in Queensland having the second highest rates observed, as for all persons and cases involving males, the rate of transport injury cases involving females resident in Victoria was slightly higher than that calculated for Queenslanders.



Transport—remoteness of usual residence

As for community injury cases overall, rates of hospitalised transport injury cases for both males and females increased with the increasing remoteness of the person’s usual residence (Figure 3.6). In addition to the factors that may influence increased rates of hospitalised injury generally for people in the more remote areas of Australia, the isolation of these regions may contribute directly to high rates of transport-related injuries through increased exposure; the requirement to drive longer distances as part of daily life in remote areas, the greater likelihood that travel will be at high speed and/or on unsurfaced roads etc.



Land transport

ICD-10-AM inclusion criteria:

- Principal diagnosis [S00–T75](#) or [T79](#), and
- First external cause [V01–V89](#), and
- Mode of admission other than ‘transfer from another acute hospital’.

This section concentrates on the community injury cases hospitalised in 2004–05 that were attributed to land transport accidents (97.3% of all unintentional transport injury cases, $n = 49,638$). Most land transport injury cases in 2004–05 involved car occupants (36.9%, $n = 18,331$) and motorcyclists (23.8%, $n = 11,818$, see also Table 3.2).

More males than females were hospitalised for injuries sustained in land transport accidents (33,668 cases vs. 15,968 cases respectively, Table 3.2). Accordingly, males had a higher age-standardised rate of land transport injuries; 334.5 cases per 100,000 population vs. 157.4 per 100,000 for females (a M:F rate ratio of 2.1 to 1). As land transport injuries accounted for nearly all of the transport cases in 2004–05, the age distribution of rates of land transport cases is very similar to that in Figure 3.1.

Land transport—traffic and non-traffic accidents

Land transport injury cases can be divided into two main groups; traffic accidents and non-traffic accidents. Traffic accidents are defined as any vehicle accidents occurring on public roadways while non-traffic accidents are any vehicle accidents that occur entirely in places other than roadways. Of all hospitalised cases attributed to land transport accidents, 60.7% were classed as traffic accidents ($n = 30,138$, see Table 3.8).

For traffic accident cases, the most frequent modes of transport used by the injured person were cars (53.2%, $n = 16,042$) and motorcycles (19.6%, $n = 5,896$). As noted for all transport injury cases, a higher proportion of traffic accident cases involving females involved cars (73.3%) than for males (42.7%). Similarly, a higher proportion of traffic accident cases involving males involved motorcycles (27.2%) than for females (5.0%). A pedal cycle as the mode of transport in a land transport traffic accident was also proportionately more common for cases involving males (16.6%, compared to 7.4% for females).

For non-traffic accident land transport cases, the most frequent modes of transport used by the injured person were motorcycles (39.3%, $n = 5,447$) and pedal cycles (30.7%, $n = 4,260$). This pattern was similar for cases involving males, with 44.7% of non-traffic cases attributed to motorcycles and 30.5% of cases attributed to pedal cycles. For females, however, this order was reversed; more non-traffic cases were attributed to pedal cycles (31.7%) than motorcycles (16.3%). For females, cars were again a more common mode of transport (28.7% of female cases, $n = 764$) for non-traffic accidents than motorcycles ($n = 433$).

Of land transport accidents where the traffic type was unspecified, the majority (58.3%; $n = 3,283$) involved an animal rider or occupant of an animal-drawn vehicle. Unlike most other classes of land transport accidents, far more animal rider or occupant of an animal-drawn vehicle cases involved females ($n = 2,113$ vs. $n = 1,170$ for males).

Table 3.8: Mode of transport of injured person by traffic type for land transport injury cases: males, females and persons, Australia 2004–05

Mode of transport	Non-traffic accident	Traffic accident	Unspecified	Total land transport
Males				
Pedestrian	518	1,563	260	2,341
Pedal cycle	3,416	3,288	246	6,950
Motorcycle	5,014	5,377	427	10,818
Three-wheeled motor vehicle	29	*	*	*
Car	1,064	8,463	214	9,741
Pick-up truck or van	121	276	29	426
Heavy transport vehicle	236	408	77	721
Bus	27	71	49	147
Animal or animal-driven vehicle	0	0	1,170	1,170
Other land transport	781	343	189	1,313
Total	11,206	19,797	2,665	33,668
Females				
Pedestrian	320	1,111	187	1,618
Pedal cycle	844	763	62	1,669
Motorcycle	433	519	48	1,000
Three-wheeled motor vehicle	15	*	*	*
Car	764	7,577	247	8,588
Pick-up truck or van	29	71	18	118
Heavy transport vehicle	16	27	10	53
Bus	63	107	121	291
Animal or animal-driven vehicle	0	0	2,113	2,113
Other land transport	175	155	162	492
Total	2,659	10,339	2,970	15,968
Persons †				
Pedestrian	838	2,674	447	3,959
Pedal cycle	4,260	4,051	308	8,619
Motorcycle	5,447	5,896	475	11,818
Three-wheeled motor vehicle	44	17	6	67
Car	1,828	16,042	461	18,331
Pick-up truck or van	150	347	47	544
Heavy transport vehicle	252	435	87	774
Bus	90	178	170	438
Animal or animal-driven vehicle	0	0	3,283	3,283
Other land transport	956	498	351	1,805
Total	13,865	30,138	5,635	49,638

Note: Shading denotes highest case count for each traffic type and gender.

* Small cell counts have been suppressed.

† Persons includes 2 cases for which sex was not reported.

Land transport—counterpart

The section above described land transport injury cases in terms of the mode of transport of the injured person. Another view of land transport cases describes what other vehicles or objects were involved in the collision—termed the ‘counterpart’.

Classification of a transport accident’s counterpart here follows that of Berry and Harrison (2007a). That is, the counterparts ‘car, pick-up truck or van’ and ‘heavy transport vehicle or bus’ could not be separated for cases where the mode of transport was an animal or animal-driven vehicle and so are presented here in the ‘car, pick-up truck or van’ category. The possibility of misinterpretation of these cases (e.g. as collisions with cars rather than buses) should be minimal given that less than five cases overall were animal or animal-driven vehicle accidents colliding with cars, pick-up trucks, vans, heavy transport vehicles or buses (Table 3.9). In addition, cases coded as ‘other land transport’ cases (V81–V89) could not be coded to counterpart categories comparable to those of the other modes of transport (see NCCH 2004). Accordingly, these cases ($n = 1,805$) have been omitted from Table 3.9.

For most types of land transport injury cases in 2004–05, the most common counterpart coded was ‘non-collision transport accident’ (36.3% of cases overall). As outlined in (Berry & Harrison 2007a; see also Berry & Harrison 2007b), the frequency of ‘non-collision’ counterparts suggests that this code may be being used as a dump code, clouding our understanding of these cases.

Table 3.9: Counterpart by the mode of transport of injured person for land transport injury cases, Australia 2004–05

Counterpart	Mode of transport									Total ^(b)
	Pedestrian	Pedal cycle	Motorcycle	Three-wheeled motor vehicle	Car	Pick-up truck or van	Heavy transport vehicle	Bus	Animal or animal-driven vehicle ^(c)	
Pedestrian or animal	0	48	195	0	90	6	*	*	14	356
Pedal cycle	112	190	13	0	9	0	0	*	*	325
Two- or three-wheeled motor vehicle	90	17	351	*	32	*	0	0	*	494
Car, pick-up truck or van ^(a)	2,943	1,065	1,574	*	7,738	96	43	59	*	13,523
Heavy transport vehicle or bus	147	46	73	0	558	24	66	15	NA	929
Railway train or railway vehicle	34	*	9	0	24	*	*	0	0	75
Other non-motor vehicle	52	*	12	0	23	0	0	*	8	101
Fixed or stationary object	0	433	1,261	8	4,466	85	68	15	29	6,365
Non-collision transport accident	0	4,359	5,593	39	3,856	246	452	244	2,593	17,382
Other & unspecified transport accidents	581	2,451	2,737	16	1,535	82	142	104	635	8,283
Total ^(b)	3,959	8,619	11,818	67	18,331	544	774	438	3,283	47,833

(a) Where vehicle type is animal or animal-driven vehicle, counterparts ‘car, pick-up truck or van’ and ‘heavy transport vehicle or bus’ are combined.

(b) Totals exclude 1,805 land transport injury cases (‘other land transport’) for which counterpart was not comparable to those listed for other vehicle types.

Note: Shading denotes most numerous counterparts for each vehicle type.

* Small cell counts have been suppressed.

Table 3.10: Road user type by mode of transport of injured person; traffic, non-traffic and unspecified land transport injury cases, Australia 2004–05

Mode of transport	Road user type						Total †
	Pedestrian	Driver	Passenger	Person boarding or alighting	Person on outside of vehicle	Other & unspecified	
Traffic accident							
Pedestrian	2,674	0	0	0	0	0	2,674
Pedal cycle	0	2,049	19	0	0	1,983	4,051
Motorcycle	0	3,821	214	0	0	1,861	5,896
Car	0	9,909	4,928	0	54	1,151	16,042
Pick-up truck or van	0	190	93	0	26	38	347
Heavy transport vehicle	0	319	63	0	*	45	435
Bus	0	19	128	0	*	29	178
Animal or animal-driven vehicle	0	0	0	0	0	0	0
Other land transport	0	81	25	0	11	381	498
<i>Total traffic accident †</i>	2,674	16,397	5,471	0	101	5,495	30,138
Non-traffic accident							
Pedestrian	838	0	0	0	0	0	838
Pedal cycle	0	3,072	76	0	0	1,112	4,260
Motorcycle	0	4,404	131	0	0	912	5,447
Car	0	1,034	537	0	101	156	1,828
Pick-up truck or van	0	36	32	0	50	32	150
Heavy transport vehicle	0	87	19	0	77	69	252
Bus	0	*	54	0	*	29	90
Animal or animal-driven vehicle	0	0	0	0	0	0	0
Other land transport	0	535	60	0	130	231	956
<i>Total non-traffic accident †</i>	838	9,207	909	0	362	2,549	13,865
Unspecified whether traffic or non-traffic accident							
Pedestrian	447	0	0	0	0	0	447
Pedal cycle	0	0	0	13	0	295	308
Motorcycle	0	0	0	28	0	447	475
Car	0	0	0	263	0	198	461
Pick-up truck or van	0	0	0	21	0	26	47
Heavy transport vehicle	0	0	0	43	0	44	87
Bus	0	0	0	124	0	46	170
Animal or animal-driven vehicle	0	0	0	0	0	3,283	3,283
Other land transport	0	0	113	122	23	93	351
<i>Total unspecified †</i>	447	0	113	618	23	4,434	5,635
Total land transport †	3,959	25,604	6,493	618	486	12,478	49,638

Note: Shading denotes most frequent road user type for each traffic category.

* Small cell counts have been suppressed.

† Totals include cases coded to mode of transport 'three-wheeled motor vehicle'; $n = 17$ (traffic), $n = 44$ (non-traffic), and $n = 6$ (unspecified).

Table 3.10 describes the type of road user injured in land transport injury cases according to the traffic type classification of the accident. As in previous years, vehicle drivers were the most commonly-injured road user type for both traffic and non-traffic cases, as well as all land transport injury cases overall. For traffic accidents, car drivers were the most commonly injured road users while for non-traffic accidents motorcycle 'drivers' were the most frequently injured road users. This result should not be surprisingly given that a driver is almost always in a car when an accident occurs. The lower frequency of passengers injured should not be interpreted as meaning passengers are at a lower risk of injury, but rather indicates that the presence of a passenger in a car is variable.

More than half (58.3%, $n = 3,283$) of the land transport cases where the traffic type of the crash was unspecified involved animal riders or occupants of animal-driven vehicles.

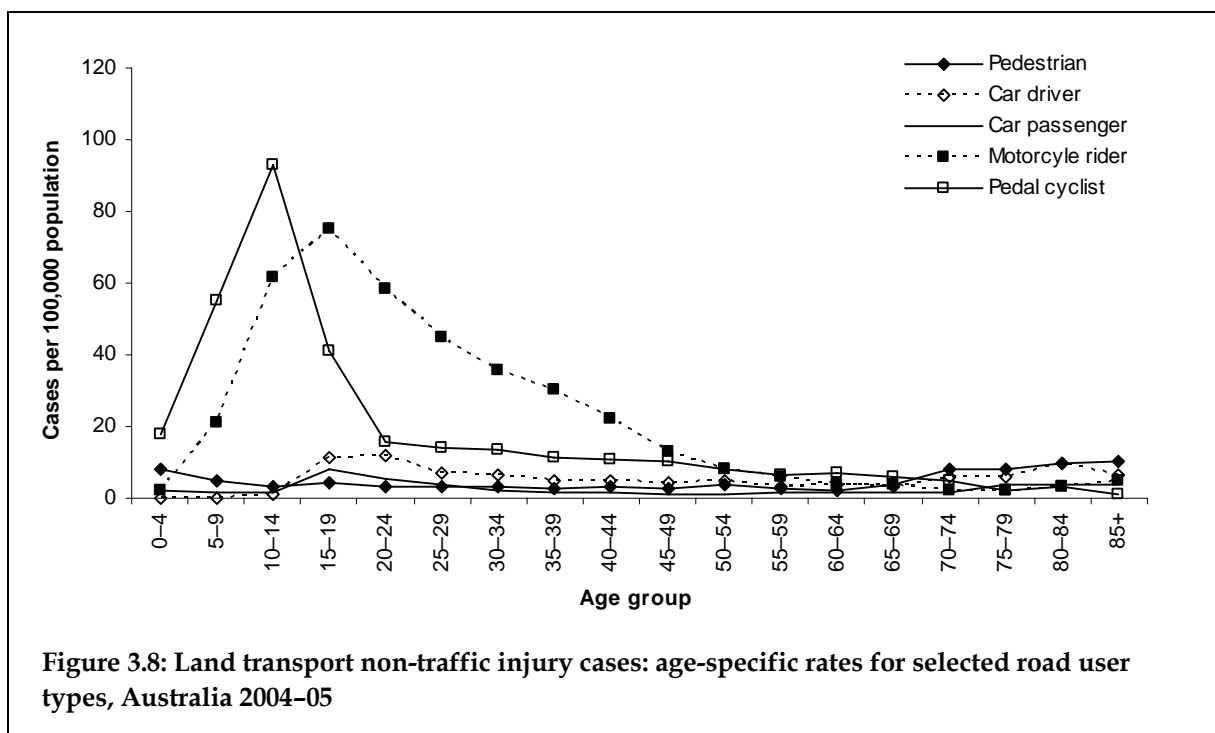
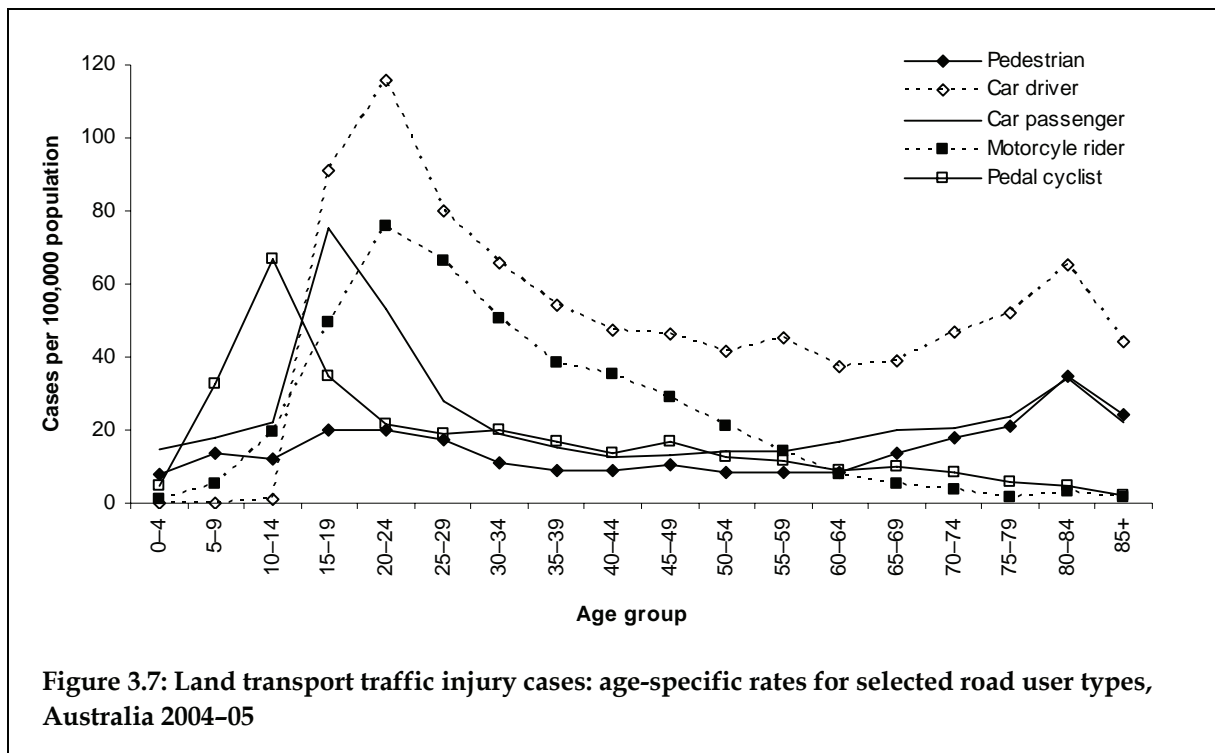
Land transport—age distribution by road user type

Of all road user types, car drivers had the highest age-standardised rate of land transport traffic accident cases; 48.8 hospitalised cases per 100,000 population. Peaks in age-specific rates of traffic accidents involving car drivers occurred for two age groups; car drivers aged 20–24 years (115.8 per 100,000) and 80–84 years (65.2 per 100,000, see Figure 3.7). As discussed above, the presence of a passenger in a car is variable and, accordingly, rates for car passengers injured in traffic accidents were lower than those for car drivers overall (age-standardised rate: 24.4 per 100,000) and for all age groups. The highest age-specific rate of car passenger traffic cases was observed for the 15–19 years age group (75.5 per 100,000 population), an age when car driver injuries were also relatively high. As with car driver injury cases, a second peak in rates of car passenger injury cases was noted for those aged 80–84 years (34.2 per 100,000).

The age-standardised rate of motorcycle rider traffic injury cases (29.4 per 100,000) was comparable to that for car passengers. The age-specific distribution of motorcycle rider injury cases was somewhat different however; rates were highest at a slightly older age (20–24, as for car drivers) and rates fell steadily from this point. While rates of pedal cyclists injured in traffic accidents followed a similar trajectory, the highest rates (66.6 per 100,000) occurred at an early age; 10–14 years.

Pedestrians injured in land transport traffic cases had the lowest age-standardised rate of all the road user groups described here (13.2 per 100,000) and presented a very different age pattern; rates were quite uniform until the age of 74 years and the highest rate of pedestrian traffic accident cases was observed for the 80–84 years age group. At these older ages, the rates of pedestrian traffic accident cases were equivalent to those for car drivers.

Non-traffic land transport injuries presented a quite different age-distribution to that of traffic injury cases; rates for car drivers, car passengers and pedestrians were all quite low and rates were highest for pedal cyclists and motorcycle riders (see Figure 3.8, to same scale as Figure 3.7). As for traffic accidents, rates of pedal cyclists injured in non-traffic accidents were highest for the 10–14 years age group and declined thereafter. For motorcycle riders, high rates of injury in non-traffic accidents were noted at a slightly younger age (15–19 years) than for traffic accidents.

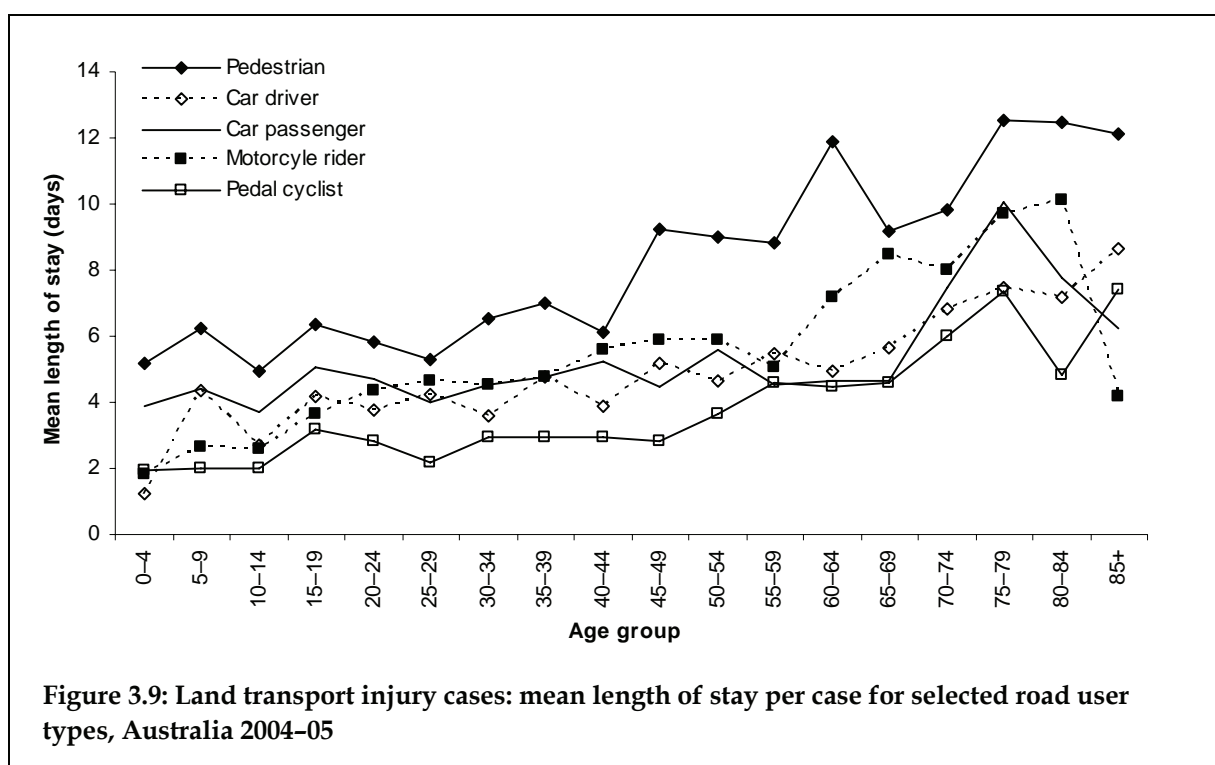


Land transport—length of stay by road user type

Unlike the discussion of hospitalised injury *cases* due to land transport accidents above, the analysis of patient-days here includes inward transfer separations as these transfers also contribute to the total burden of hospital care due to land transport injury. The total number of patient-days attributed to land transport injuries in 2004–05 was 222,443*, 97.5% of all transport injury patient-days.

Figure 3.9 presents age-specific mean lengths of stay for selected road user types (for all types of traffic accidents). For all of the road user types presented here, mean lengths of stay per land transport case increased with age. For all age groups, pedestrians had the longest mean lengths of stay compared to other road users. This is likely related to the lack of protection for pedestrians when impacted by (generally) mechanical counterparts.

For unknown reasons, the mean lengths of stay per case in 2004–05 are about a day longer for all age groups and all road user types than those calculated for 2003–04 (Berry & Harrison 2007a).



* Again, the one separation that had a recorded length of stay of 4,229 days (over 11 years) was omitted from this analysis.

3.2 Drowning and submersion injury cases

ICD-10-AM inclusion criteria:

- Principal diagnosis [S00–T75](#) or [T79](#), and
- First external cause [W65–W74](#), and
- Mode of admission other than ‘transfer from another acute hospital’.

Table 3.11: Key indicators for hospitalised drowning and submersion injury: males, females and persons, Australia 2004–05

Key indicators	Males	Females	Persons
Total number of hospital separations due to drowning & submersion injury	316	174	490
Drowning & submersion separations as proportion of all community injury separations	0.1%	0.1%	0.1%
Estimated number of drowning & submersion injury cases ^(a)	290	166	456
Cases per 100,000 population	2.9	1.6	2.3
Cases per 100,000 population—age-standardised ^(b)	2.9	1.7	2.3
Total patient-days due to drowning & submersion injury ^(c)	782	371	1,153
Mean patient-days per case	2.7	2.2	2.5

(a) Excludes records with a mode of admission of ‘transfer from another acute hospital’.

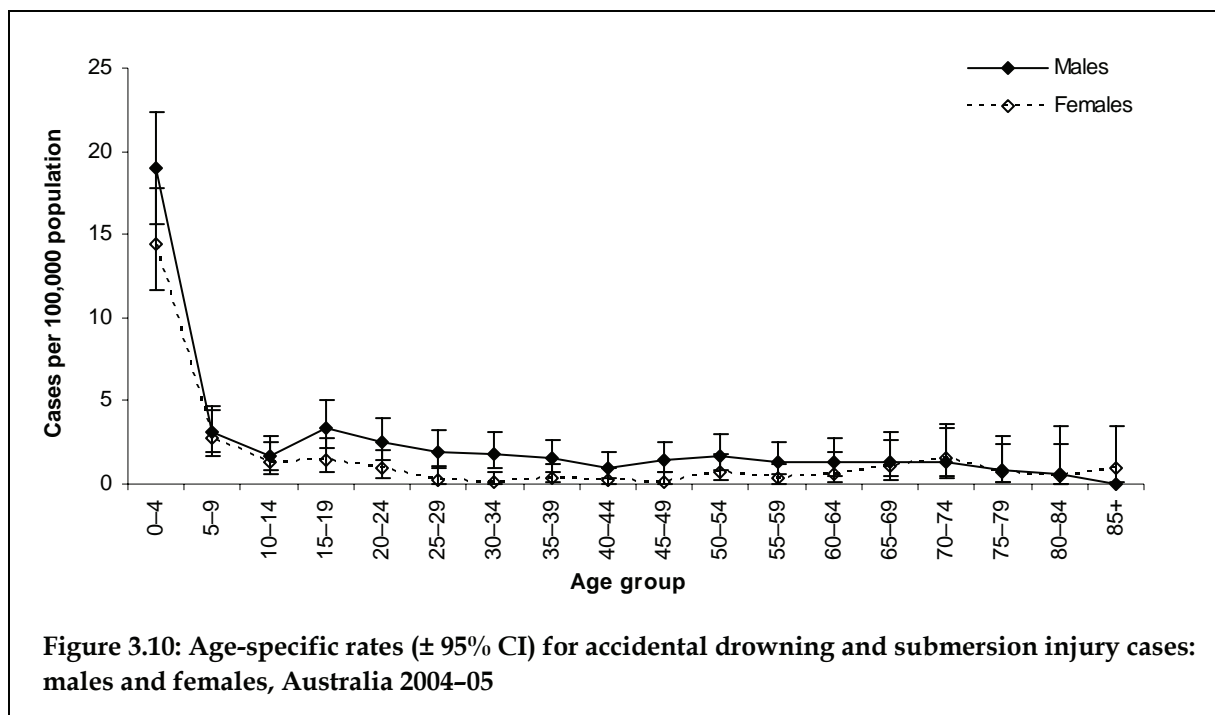
(b) Standardised to the Australian estimated resident population 30th June 2001.

(c) Includes records with a mode of admission of ‘transfer from another acute hospital’ as contributing to hospital burden due to injury.

An estimated 456 hospitalised injury cases were due to *unintentional* drowning and submersion in 2004–05 (Table 3.11). Intentional/undetermined intent drowning and submersion injuries (i.e. cases coded to principal diagnoses X71, X92 or Y21) are included in later sections. The age-standardised rate of accidental drowning and submersion cases was 2.3 per 100,000 population.

Drowning and submersion—age and sex

More than half of all hospitalised drowning and submersion injury cases involved children under 10 years of age (55.0%, $n = 251$) and 63.6% involved males ($n = 290$). Age-specific rates of accidental drowning and submersion for both males and females were highest for those aged 0–4 years, and rates were at a much lower and relatively constant level at older ages (Figure 3.10). Rates for males were generally higher than those for females for all age groups, but the width of the confidence intervals suggest that these differences were non-significant for all age groups other than the 30–34 years group (males: 1.9 per 100,000, CI+ 3.1, CI- 1.0; females: 0.1 per 100,000, CI+ 0.7, CI- 0.0). The overall (age-standardised) rate of accidental drowning and submersion cases involving males was 2.9 per 100,000 population while for females this rate was 1.7 per 100,000 (M:F ratio 1.7:1).



Drowning and submersion—external cause

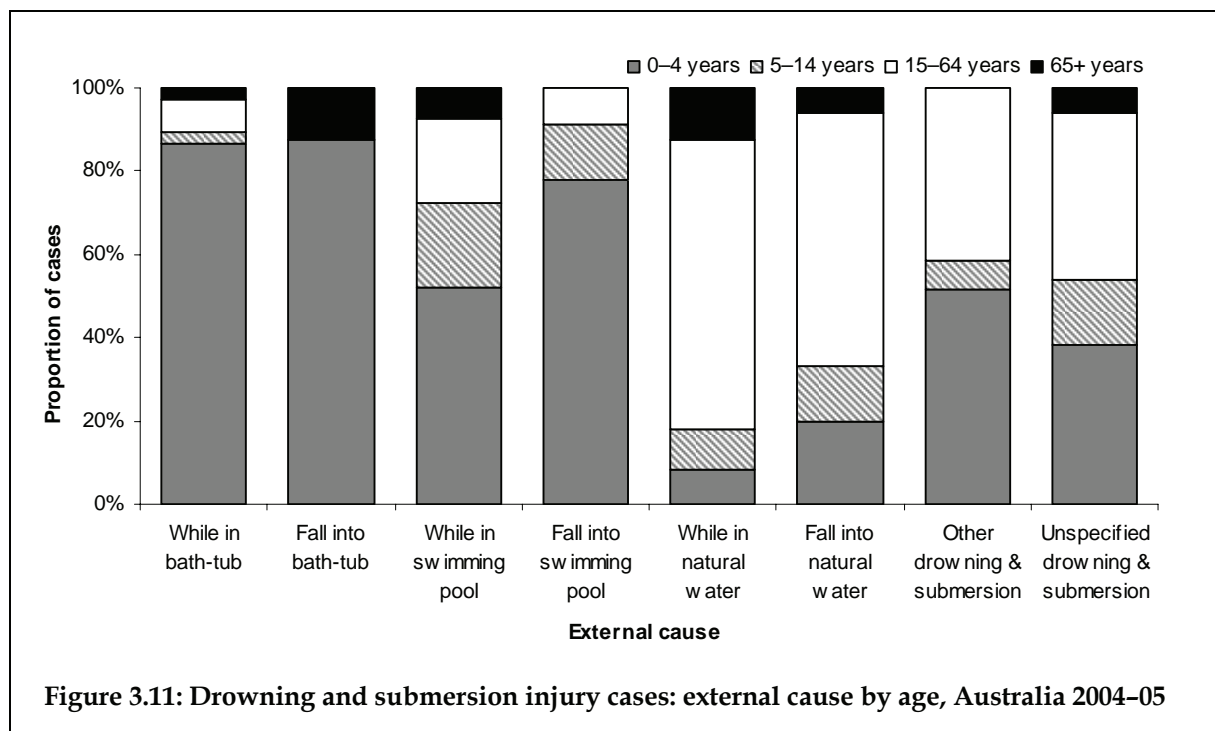
Many accidental drowning and submersion cases involved swimming pools; drowning and submersion while *in* a swimming pool accounted for 21.5% of cases and drowning and submersion due to *falling into* a swimming pool accounted for 17.8% (Table 3.12). A higher proportion of cases involving females were associated with swimming pools (45.8%) than for males (35.5%) while a higher proportion of cases involving males were associated with natural water (35.9% of cases for males vs. 20.5% of cases for females).

As can be seen in Figure 3.11, the age patterns for different drowning and submersion external causes were quite distinct, when considered for relatively broad groups. The majority of cases attributed to bathtubs and swimming pools involved children aged 0-4 years while a relatively small proportion of other types of drowning and submersion cases involved such young children.

Table 3.12: First external cause for drowning injury cases: males, females and persons, Australia 2004-05

External cause	Males	Females	Persons
Drowning & submersion while in bath-tub (W65)	18 (6.2%)	19 (11.4%)	37 (8.1%)
Drowning & submersion following fall into bathtub (W66)	* (1.4%)	* (2.4%)	8 (1.8%)
Drowning & submersion while in swimming-pool (W67)	53 (18.3%)	45 (27.1%)	98 (21.5%)
Drowning & submersion following fall into swimming-pool (W68)	50 (17.2%)	31 (18.7%)	81 (17.8%)
Drowning & submersion while in natural water (W69)	54 (18.6%)	18 (10.8%)	72 (15.8%)
Drowning & submersion following fall into natural water (W70)	50 (17.2%)	16 (9.6%)	66 (14.5%)
Other specified drowning & submersion (W73)	* (5.9%)	* (7.2%)	29 (6.4%)
Unspecified drowning & submersion (W74)	44 (15.2%)	21 (12.7%)	65 (14.3%)
Total	290	166	456

* Small case counts have been suppressed.



Drowning and submersion—place and activity

A third of all hospitalised drowning and submersion cases occurred in the home (35.3%, $n = 161$). Not surprisingly, other common places of occurrence for accidental drowning and submersion cases were areas defined by the presence of natural water; together, areas of still water, streams of water, large areas of water and beaches accounted for 42.3% of cases ($n = 193$).

Accidental drowning and submersion cases rarely occurred in swimming centres, with only 6.4% of cases ($n = 29$) having swimming centres as the designated place of occurrence. More than half of the accidental drowning cases attributed to swimming pools (external causes W67 and W68) occurred in the home (54.2%, $n = 97$).

As young children were more commonly involved in drowning and submersion events involving bathtubs and swimming pools, it was not surprising to find that most drowning cases reported to have occurred in the home involved children aged 0–4 years (85.7%, $n = 139$). Conversely, only 16.1% cases ($n = 31$) occurring in areas of still water, streams of water, large areas of water and beaches involved children aged less than five years old.

Compared to other classes of external cause, relatively few hospitalised drowning and submersion cases had an unspecified place of occurrence (5.9%, $n = 27$).

The most frequent specified activity engaged in for hospitalised drowning and submersion cases was swimming (19.7%, $n = 90$). Other water-related sporting activities were also relatively common, although more so for males than for females. For example, 7.9% of male cases were reported to have occurred while surfing or boogie boarding compared to only 1.8% of female cases.

As for place of occurrence, age was strongly associated with activity at the time of the drowning and submersion incident; nine in ten of the cases coded with ‘while resting, sleeping, eating or engaging in other vital activities’ involved children aged 0–4 years (86.1%, $n = 31$).

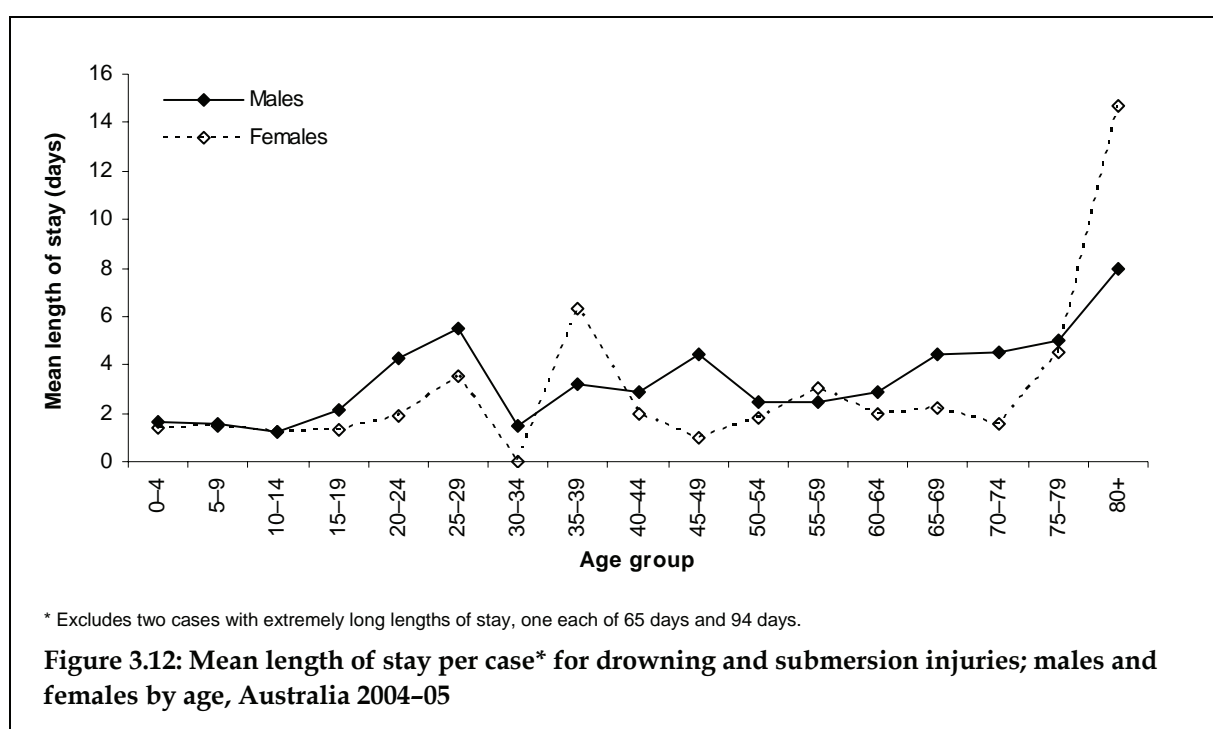
Drowning and submersion—principal diagnosis

Most hospitalised drowning and submersion cases in 2004–05 were assigned a principal diagnosis of T75.1, drowning and nonfatal submersion (83.8%, $n = 382$). Many of the remaining accidental drowning and submersion cases (14.7%, $n = 67$) were assigned a principal diagnosis that described physical trauma, commonly injuries to the head and neck (7.7% of all accidental drowning cases, $n = 35$). Diagnosis patterns were similar for males and females but there was a difference in the type of principal diagnosis assigned to accidental drowning and submersion cases according to age; only 0.5% of cases involving very young children 0–4 years were assigned a principal diagnosis describing physical trauma compared to 27.0% of cases involving people aged 5 years and older.

Drowning and submersion—length of stay

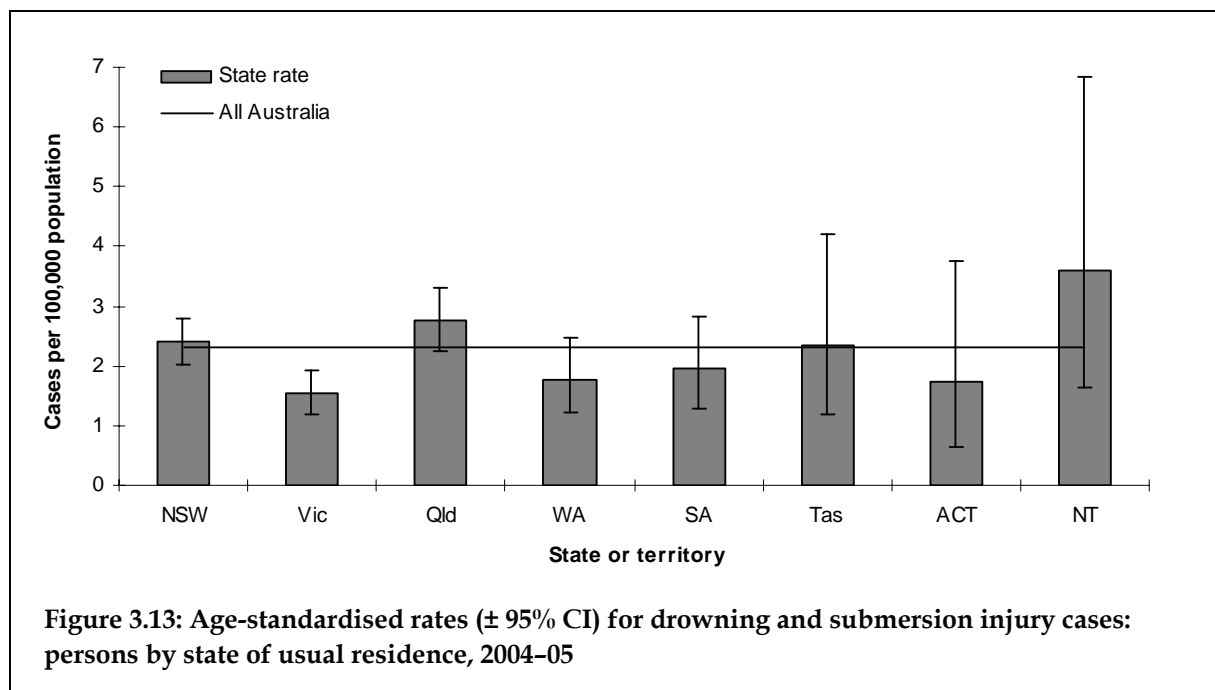
The total number of patient-days attributed to hospitalised drowning and submersion injuries in 2004–05 was 1,153. Including same-day stays, three-quarters of all drowning and submersion separations had a length of stay of only one day (75.3%, $n = 369$). This is a higher proportion of cases having a length of stay of only one day than observed for many other types of community injury cases. Accordingly, the mean length of stay for all hospitalised drowning and submersion cases was quite short compared to other types of injuries; 2.5 days. The mean length of stay per case for drowning and submersion injuries for males was 2.7 days and 2.2 days for females.

The mean length of stay due to drowning and submersion showed no strong trend with age (Figure 3.12). The observed fluctuations for both sexes reflect the small number of drowning cases involving people over the age of four years. Two accidental drowning cases with extremely long lengths of stay have been omitted from the means presented in Figure 3.12 as they obscure the overall pattern of relatively low mean lengths of stay for accidental drowning cases for all but the very old.



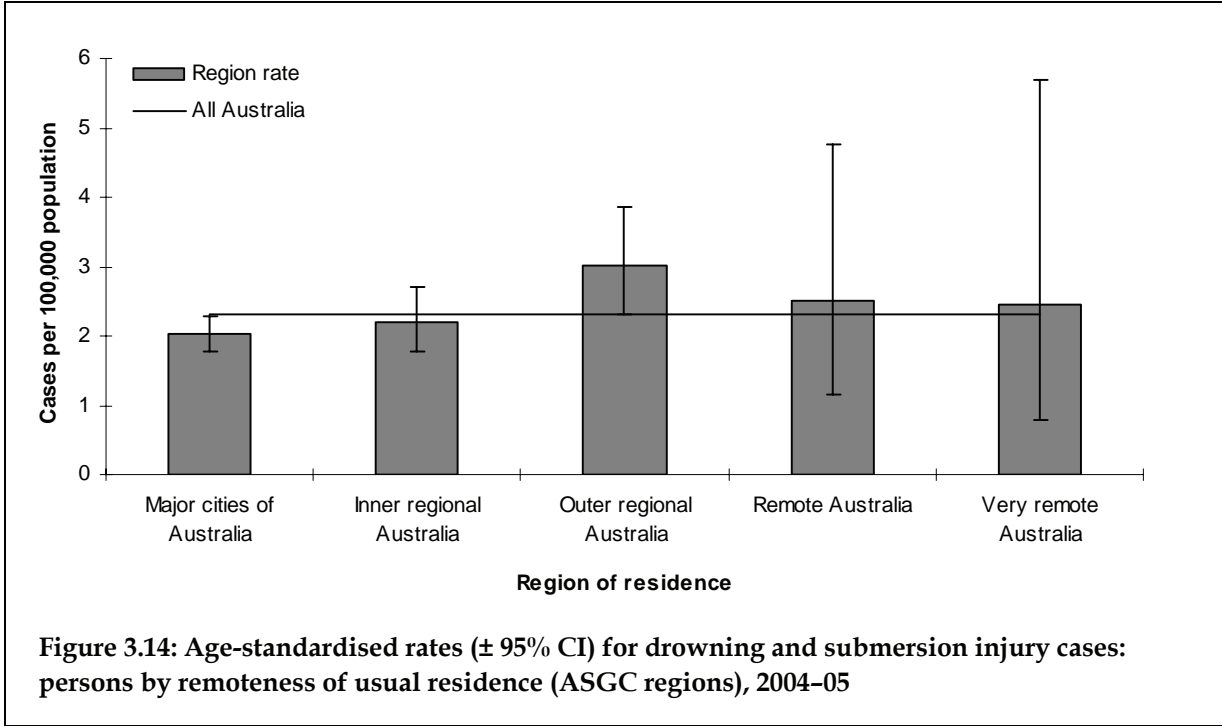
Drowning and submersion—state of usual residence

Age-standardised rates of hospitalised drowning and submersion cases by state of usual residence suggest that there is little significant difference between the jurisdictions (Figure 3.13). While the highest rate was observed for residents of the Northern Territory (3.6 per 100,000 population), the 95% confidence intervals for this rate overlapped with those for all other states. The lowest rate of hospitalised drowning and submersion cases was observed for residents of Victoria (1.5 per 100,000). This was significantly lower than the national age-standardised rate, but was not significantly different to other jurisdictions.



Drowning and submersion—remoteness of usual residence

The rate of drowning and submersion cases according to the remoteness of the person's place of usual residence was somewhat different to that for all community injury cases (Figure 3.14). While rates of cases involving residents of Australia's major cities were the lowest observed (2.0 per 100,000 population), this was not significantly different to rates for residents of inner regional Australia. The rate of drowning and submersion cases was highest for residents of outer regional areas (3.0 per 100,000). Rates for residents of Remote and Very remote Australia were not significantly different to those for other regions of the country.



3.3 Poisoning (pharmaceuticals) injury cases

ICD-10-AM inclusion criteria:

- Principal diagnosis S00–T75 or T79, and
- First external cause X40–X44, and
- Mode of admission other than ‘transfer from another acute hospital’.

Table 3.13: Key indicators for hospitalised unintentional poisoning by pharmaceuticals injury: males, females and persons, Australia 2004–05

Key indicators	Males	Females	Persons
Total number of hospital separations due to poisoning (pharmaceuticals) injury	3,228	3,847	7,075
Poisoning (pharmaceuticals) separations as proportion of all community injury separations	1.4%	2.4%	1.8%
Estimated number of poisoning (pharmaceuticals) injury cases ^(a)	3,087	3,722	6,809
Cases per 100,000 population	30.7	36.6	33.7
Cases per 100,000 population—age-standardised ^(b)	31.2	36.7	34.0
Total patient-days due to poisoning (pharmaceuticals) injury ^(c)	6,564	8,468	15,032
Mean patient-days per case	2.1	2.3	2.2

(a) Excludes records with a mode of admission of ‘transfer from another acute hospital’.

(b) Standardised to the Australian estimated resident population 30th June 2001.

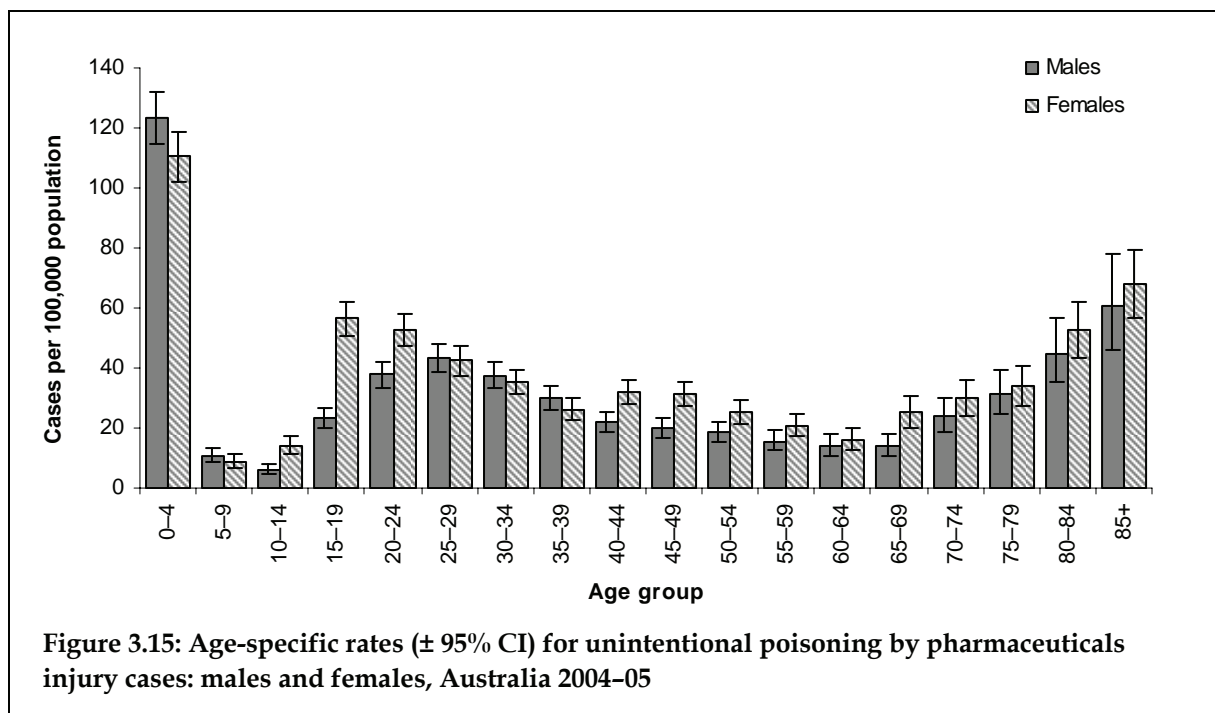
(c) Includes records with a mode of admission of ‘transfer from another acute hospital’ as contributing to hospital burden due to injury.

An estimated 6,809 hospitalised injury cases were due to *unintentional* poisoning by pharmaceutical substances in 2004–05 (Table 3.13). Intentional/undetermined intent poisonings involving pharmaceuticals (i.e. cases coded to principal diagnoses X60–X64, X85 or Y10–Y14) are discussed in later sections. It is important to note that such cases are more numerous than accidental pharmaceutical poisonings; intentional self-poisoning cases, for example, were 2.7 times more common than accidental poisoning cases in 2004–05 ($n = 18,568$).

Accidental poisoning cases requiring hospitalisation in 2004–05 occurred at an age-standardised rate of 34.0 per 100,000 population.

Poisoning (pharmaceuticals)—age and sex

Only 45.3% of hospitalised accidental pharmaceutical poisoning cases involved males in 2004–05 ($n = 3,087$). Accordingly, and unlike many types of community injuries, females had a higher age-standardised rate of unintentional pharmaceutical poisonings (36.7 per 100,000 population) than males (31.2 per 100,000). The pattern of cases by age was quite similar for both males and females however (Figure 3.15). Rates were highest for children aged 0–4 years and lowest for children 5–14 years. Age-specific rates of accidental pharmaceutical poisonings were significantly higher for females than for males between the ages of 15–24 years and 40–49 years. Of note, the male to female rate-ratio of hospitalised pharmaceutical poisonings for people aged 15–19 was 0.4:1.



Poisoning (pharmaceuticals)—external cause

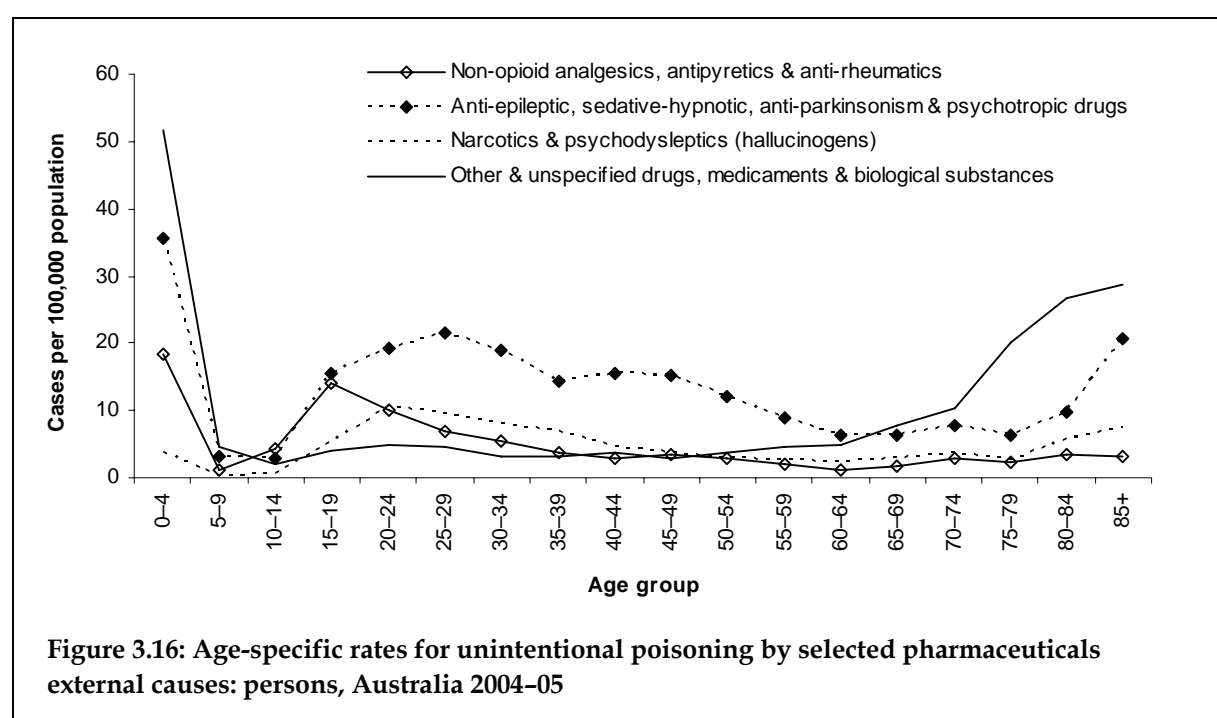
The most common external cause code assigned to unintentional poisoning by pharmaceuticals cases in 2004–05 was X41, accidental poisoning by and exposure to antiepileptic, sedative-hypnotic, anti-parkinsonism and psychotropic drugs (41.5%, $n = 2,826$). These types of pharmaceuticals were the most frequent cause of hospitalised poisoning cases for both males and females (Table 3.14). The second most common *specific* cause of accidental pharmaceutical poisoning cases in 2004–05 was X40, accidental poisoning by and exposure to non-opioid analgesics, antipyretics and anti-rheumatics (16.2%, $n = 1,106$). These drugs were also the second most common cause of cases involving females (18.8% of cases, $n = 699$), but only the third most frequent cause of hospitalised pharmaceutical poisoning cases for males (13.2%, $n = 407$). For males, the second most common cause of hospitalised pharmaceutical poisonings was X42, accidental poisoning by and exposure to narcotics and psychodysleptics (17.3% of cases, $n = 534$).

Cases attributed to accidental poisoning by and exposure to other and unspecified drugs, medicaments and biological substances (X44) accounted for a quarter of all hospitalised pharmaceutical poisonings.

As well as the overall rate of poisonings, age was also associated with the type of pharmaceutical attributed to the case. Rates of poisoning by antiepileptic, sedative-hypnotic, anti-parkinsonism and psychotropic drugs (X41) were highest for people aged 10–64 years (Figure 3.16). For both children aged 0–9 years and adults 65 years and older, rates of poisoning by other and unspecified drugs, medicaments and biological substances (X44) were highest.

Table 3.14: First external cause for unintentional poisoning by pharmaceuticals injury cases: males, females and persons, Australia 2004–05

External cause	Males	Females	Persons
Non-opioid analgesics, antipyretics & anti-rheumatics (X40)	407 (13.2%)	699 (18.8%)	1,106 (16.2%)
Antiepileptic, sedative-hypnotic, anti-parkinsonism & psychotropic drugs, not elsewhere classified (X41)	1,226 (39.7%)	1,600 (43.0%)	2,826 (41.5%)
Narcotics & psychodysleptics (hallucinogens), not elsewhere classified (X42)	534 (17.3%)	421 (11.3%)	955 (14.0%)
Other drugs acting on the autonomic nervous system (X43)	102 (3.3%)	123 (3.3%)	225 (3.3%)
Other & unspecified drugs, medicaments & biological substances (X44)	818 (26.5%)	879 (23.6%)	1,697 (24.9%)
Total	3,087	3,722	6,809



Poisoning (pharmaceuticals)—place and activity

More than half of all unintentional poisoning by pharmaceuticals cases were reported to have taken place in the home (58.1%, $n = 3,956$). This was true for both males and females (Table 3.15) and was the most common place of occurrence for all age groups (data not presented). A further five per cent of cases reportedly occurred in a health service area ($n = 338$). Cases occurring in health service areas were more common for Australians aged 65 years and older, accounting for 13.6% ($n = 121$) of accidental pharmaceutical poisonings involving people of this age (versus 1–8% for other age groups).

Place of occurrence was unspecified for three in ten unintentional poisoning by pharmaceuticals cases (29.5%, $n = 2,011$). Similarly, activity at time of occurrence was unspecified for half of all accidental pharmaceutical poisonings (51.7%, Table 3.16).

Table 3.15: Place of occurrence for unintentional poisoning by pharmaceuticals injury cases: males, females and persons, Australia 2004–05

Place of occurrence	Males	Females	Persons
Home	1,738 (56.3%)	2,218 (59.6%)	3,956 (58.1%)
Residential institution	49 (1.6%)	98 (2.6%)	147 (2.2%)
School	6 (0.2%)	20 (0.5%)	26 (0.4%)
Health service area	141 (4.6%)	197 (5.3%)	338 (5.0%)
Other specified institution and public administrative area	6 (0.2%)	11 (0.3%)	17 (0.2%)
Sports and athletics area	* (0.1%)	* (0.0%)	* (0.0%)
Street and highway	17 (0.6%)	11 (0.3%)	28 (0.4%)
Shop and store	5 (0.2%)	14 (0.4%)	19 (0.3%)
Cafe, hotel and restaurant	60 (1.9%)	60 (1.6%)	120 (1.8%)
Other & unspecified trade and service area	16 (0.5%)	17 (0.5%)	33 (0.5%)
Industrial and construction area	* (0.1%)	* (0.1%)	9 (0.1%)
Farm	* (0.1%)	* (0.0%)	* (0.0%)
Other specified place of occurrence	49 (1.6%)	38 (1.0%)	87 (1.3%)
Unspecified place of occurrence	984 (31.9%)	1,027 (27.6%)	2,011 (29.5%)
Place not reported/not applicable	7 (0.2%)	5 (0.1%)	12 (0.2%)
Total	3,087	3,722	6,809

* Small case counts have been suppressed.

Table 3.16: Activity at time of occurrence for unintentional poisoning by pharmaceuticals injury cases: males, females and persons, Australia 2004–05

Activity	Males	Females	Persons
While engaged in sports	* (0.1%)	* (0.1%)	6 (0.1%)
While engaged in leisure	29 (0.9%)	29 (0.8%)	58 (0.9%)
While working for income	8 (0.3%)	19 (0.5%)	27 (0.4%)
While engaged in other types of work	* (0.1%)	* (0.2%)	10 (0.1%)
While resting, sleeping, eating, etc.	78 (2.5%)	104 (2.8%)	182 (2.7%)
Other specified activity	1,311 (42.5%)	1,653 (44.4%)	2,964 (43.5%)
Unspecified activity	1,633 (52.9%)	1,887 (50.7%)	3,520 (51.7%)
Activity not reported/not applicable	20 (0.6%)	22 (0.6%)	42 (0.6%)
Total	3,087	3,722	6,809

* Small case counts have been suppressed.

Poisoning (pharmaceuticals)—principal diagnosis

In 99.5% ($n = 6,773$) of accidental pharmaceutical poisoning cases, the principal diagnosis assigned to the case described 'poisoning by drugs, medicaments and biological substances'. Nearly a quarter of these cases (23.6%, $n = 1,598$) were assigned a principal diagnosis of T42, poisoning by antiepileptic, sedative-hypnotic and anti-parkinsonism drugs. Other common principal diagnoses for hospitalised pharmaceutical poisonings were T43, psychotropic drugs (18.1%, $n = 1,226$) and T39, poisoning by non-opioid analgesics, antipyretics and anti-rheumatics (16.5%, $n = 1,115$). The proportions of principal diagnoses assigned to cases involving males and females were quite similar (Table 3.17).

Poisoning by antiepileptic, sedative-hypnotic and anti-parkinsonism drugs (T42) was the most common principal diagnosis assigned to accidental pharmaceutical poisoning cases for most age groups (Table 3.18). For children aged 5–14 years and young adults 15–24 years, poisoning by non-opioid analgesics, antipyretics & anti-rheumatics (T39) was the most common principal diagnosis assigned to unintentional cases, however.

Not surprisingly, the nature of the injury as described by the principal diagnosis for hospitalised pharmaceutical poisoning cases was overwhelmingly 'poisoning/toxic effect' (99.7%, $n = 6,788$). Similarly, 99.8% of cases ($n = 6,793$) were classed as being 'other injuries not specified by body region'.

Table 3.17: Principal diagnosis for unintentional pharmaceutical poisoning cases where diagnosis group was 'poisoning by drugs, medicaments and biological substances': males, females and persons, Australia 2004–05

Principal diagnosis	Males	Females	Persons
Systemic antibiotics (T36)	15 (0.5%)	22 (0.6%)	37 (0.5%)
Other systemic anti-infectives & antiparasitics (T37)	11 (0.4%)	13 (0.4%)	24 (0.4%)
Hormones & their synthetic substitutes & antagonists, not elsewhere classified (T38)	81 (2.6%)	88 (2.4%)	169 (2.5%)
Non-opioid analgesics, antipyretics & anti-rheumatics (T39)	413 (13.5%)	702 (19.0%)	1,115 (16.5%)
Narcotics & psychodysleptics [hallucinogens] (T40)	517 (16.8%)	417 (11.3%)	934 (13.8%)
Anaesthetics & therapeutic gases (T41)	30 (1.0%)	24 (0.6%)	54 (0.8%)
Antiepileptic, sedative-hypnotic & anti-parkinsonism drugs (T42)	681 (22.2%)	917 (24.8%)	1,598 (23.6%)
Psychotropic drugs, nec (T43)	552 (18.0%)	674 (18.2%)	1,226 (18.1%)
Drugs primarily affecting the autonomic nervous system (T44)	108 (3.5%)	124 (3.3%)	232 (3.4%)
Primarily systemic & haematological agents, nec (T45)	172 (5.6%)	150 (4.1%)	322 (4.8%)
Agents primarily affecting the cardiovascular system (T46)	196 (6.4%)	222 (6.0%)	418 (6.2%)
Agents primarily affecting the gastrointestinal system (T47)	21 (0.7%)	46 (1.2%)	67 (1.0%)
Agents primarily acting on smooth & skeletal muscles & the respiratory system (T48)	42 (1.4%)	53 (1.4%)	95 (1.4%)
Topical agents primarily affecting skin & mucous membrane & by ophthalmological, otorhinolaryngological & dental drugs (T49)	100 (3.3%)	97 (2.6%)	197 (2.9%)
Diuretics & other & unspecified drugs, medicaments & biological substances (T50)	131 (4.3%)	154 (4.2%)	285 (4.2%)
Total	3,070	3,703	6,773

Table 3.18: Principal diagnosis for accidental pharmaceutical poisoning cases where diagnosis group was 'poisoning by drugs, medicaments and biological substances' by age, Australia 2004–05

Principal diagnosis	0–4	5–14	15–24	25–44	45–64	65+	All ages [†]
Systemic antibiotics (T36)	*	*	5	12	9	5	37
Other systemic anti-infectives & antiparasitics (T37)	6	0	*	6	*	6	24
Hormones & their synthetic substitutes & antagonists, nec (T38)	62	9	9	25	27	37	169
Non-opioid analgesics, antipyretics & anti-rheumatics (T39)	234	74	338	280	128	61	1,115
Narcotics & psychodysleptics [hallucinogens] (T40)	47	10	218	404	147	108	934
Anaesthetics & therapeutic gases (T41)	*	0	28	18	*	*	54
Antiepileptic, sedative-hypnotic & anti-parkinsonism drugs (T42)	257	39	189	568	381	164	1,598
Psychotropic drugs, nec (T43)	191	45	295	467	167	60	1,226
Drugs primarily affecting the autonomic nervous system (T44)	101	9	11	25	16	70	232
Primarily systemic & haematological agents, nec (T45)	132	6	17	19	40	108	322
Agents primarily affecting the cardiovascular system (T46)	154	42	7	25	43	147	418
Agents primarily affecting the gastrointestinal system (T47)	30	*	*	5	6	18	67
Agents primarily acting on smooth & skeletal muscles & the respiratory system (T48)	62	7	*	7	7	*	95
Topical agents primarily affecting skin & mucous membrane etc. (T49)	121	10	13	16	17	20	197
Diuretics & other & unspecified drugs, medicaments & biological substances (T50)	69	9	31	73	30	73	285
Total	1,475	265	1,172	1,950	1,023	887	6,773

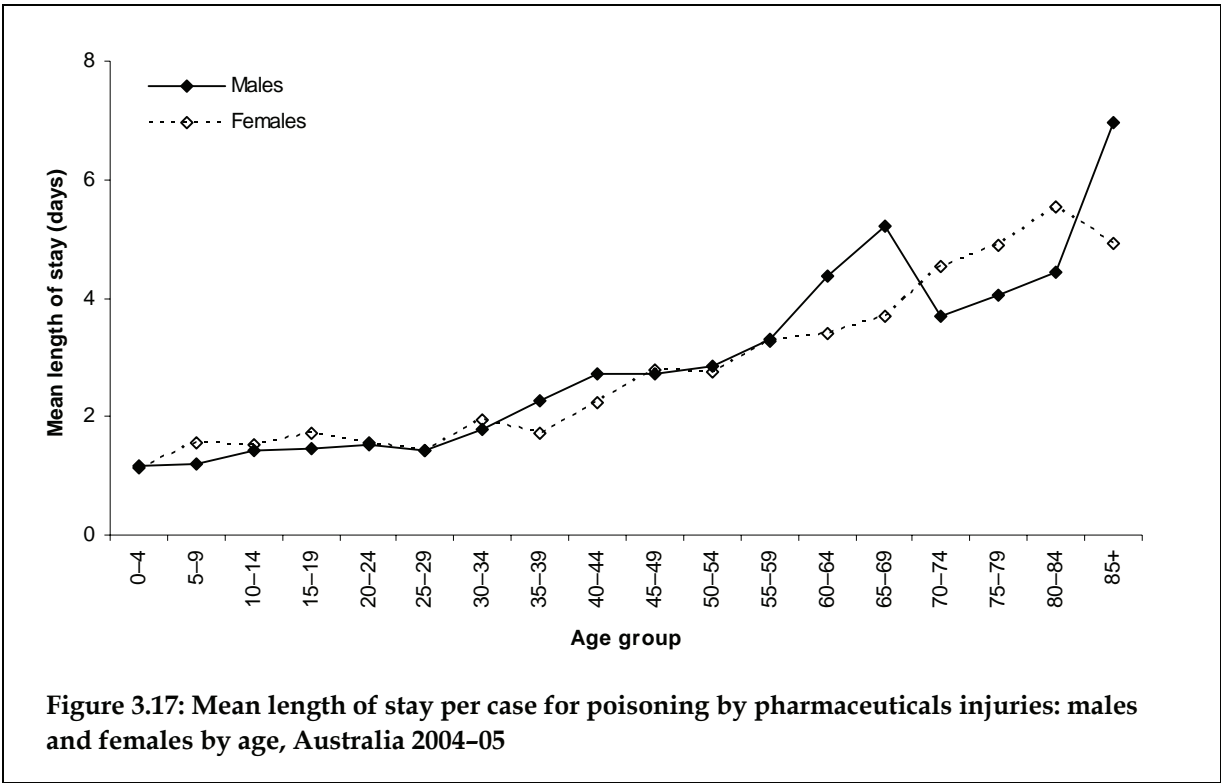
* Small cell counts have been suppressed.

† All ages includes 1 case for which age was not reported.

Poisoning (pharmaceuticals)—length of stay

The total number of patient-days attributed to hospitalised cases of unintentional poisoning by pharmaceuticals in 2004–05 was 15,032, 1.1% of all patient-days due to community injuries in this year. Including same-day separations, 77.0% of all hospitalised pharmaceutical poisoning separations had a hospital stay of only one day ($n = 5,451$). The longest lengths of stay observed for unintentional pharmaceutical poisonings were in excess of 100 days ($n = 2$). Accordingly, the mean length of stay for hospitalised cases of accidental pharmaceutical poisoning was longer than actually observed for most cases; 2.2 days. The mean length of stay for cases involving males (2.1 days) was very similar to that for females (2.3 days).

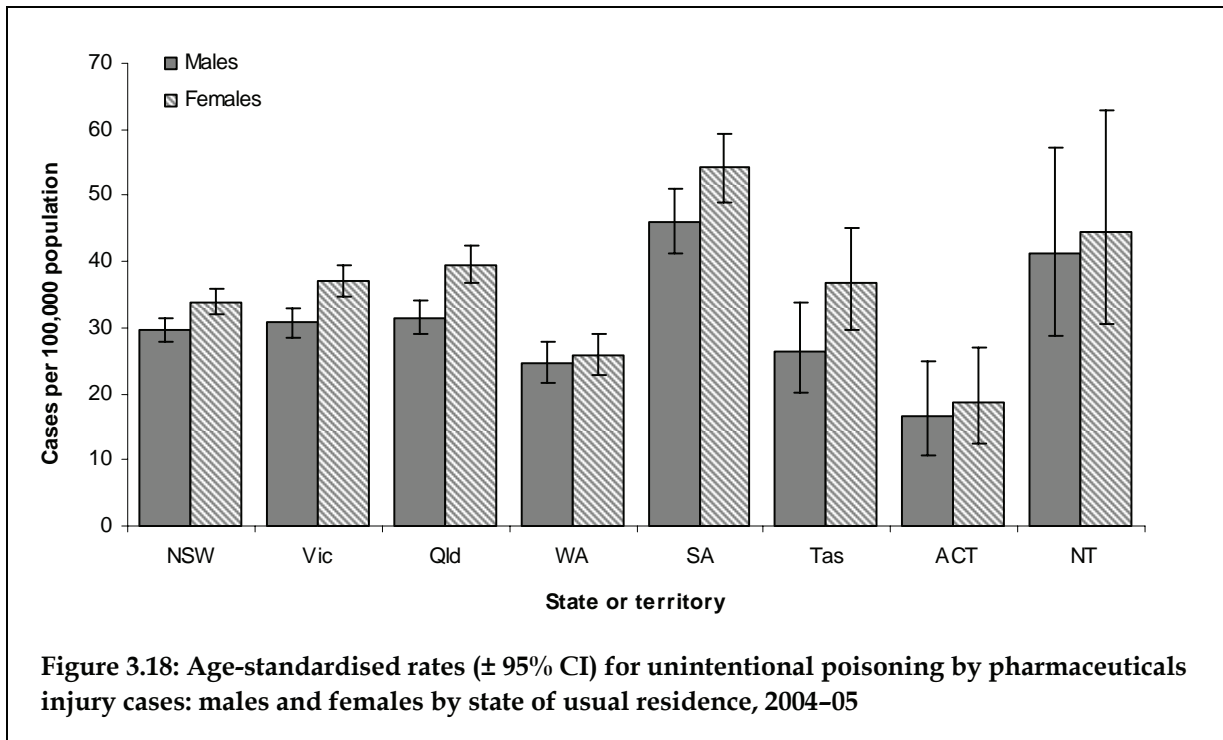
As can be seen in Figure 3.17, the mean lengths of stay per pharmaceutical poisoning case increased almost linearly with age for both males and females. The large fluctuations for means for people aged 60 years and older are provoked by the small numbers of cases determining these means. Nevertheless, the mean lengths of stay per case for older people hospitalised due to pharmaceutical poisoning are substantially longer than those for younger people, which may be related to the increased frequency of poisonings occurring in health service areas for cases involving older people.



Poisoning (pharmaceuticals)—state of usual residence

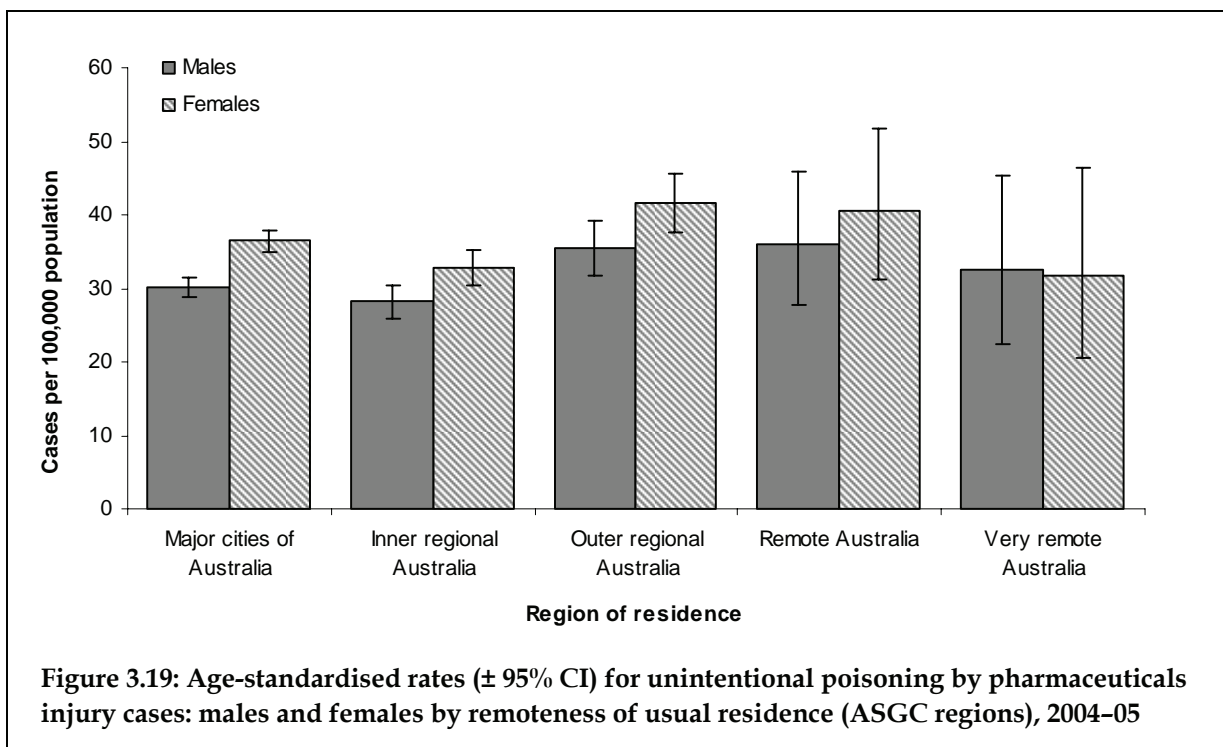
Age-standardised rates of hospitalised cases of unintentional poisoning by pharmaceuticals varied widely according to the person’s place of usual residence. The highest rate was observed for persons resident in South Australia; 50.2 per 100,000 population. This rate was significantly higher than those of all other states and territories other than the Northern Territory. The lowest rate of hospitalised cases of accidental poisoning by pharmaceuticals was observed for persons resident in the Australian Capital Territory; 17.3 per 100,000 population. This rate was considered to be significantly lower than those of all other states and territories.

Male and female rates of unintentional poisoning by pharmaceuticals cases show similar patterns according to state of usual residence (Figure 3.18). Interestingly, rates for males and females resident in Western Australia and the ACT are more similar to each other than for males and females resident in the other states of Australia.



Poisoning (pharmaceuticals)—remoteness of usual residence

The rate of hospitalised cases of unintentional poisoning by pharmaceuticals according to the remoteness of the person's place of usual residence was somewhat different to that for most community injury cases. While rates rose with remoteness for community injury overall (Figure 2.6), there was no strong trend associated with remoteness for hospitalisations due to unintentional poisoning by pharmaceuticals (Figure 3.19).



3.4 Poisoning (other substances) injury cases

ICD-10-AM inclusion criteria:

- Principal diagnosis [S00–T75](#) or [T79](#), and
- First external cause [X45–X49](#), and
- Mode of admission other than ‘transfer from another acute hospital’.

Table 3.19: Key indicators for hospitalised unintentional poisoning by other substances injury: males, females and persons, Australia 2004–05

Key indicators	Males	Females	Persons
Total number of hospital separations due to poisoning (other substances) injury	1,458	982	2,440
Poisoning (other substances) separations as proportion of all community injury separations	0.7%	0.6%	0.6%
Estimated number of poisoning (other substances) injury cases ^(a)	1,380	939	2,319
Cases per 100,000 population	13.7	9.2	11.5
Cases per 100,000 population—age-standardised ^(b)	13.8	9.3	11.6
Total patient-days due to poisoning (other substances) injury ^(c)	2,786	1,566	4,352
Mean patient-days per case	2.0	1.7	1.9

(a) Excludes records with a mode of admission of ‘transfer from another acute hospital’.

(b) Standardised to the Australian estimated resident population 30th June 2001.

(c) Includes records with a mode of admission of ‘transfer from another acute hospital’ as contributing to hospital burden due to injury.

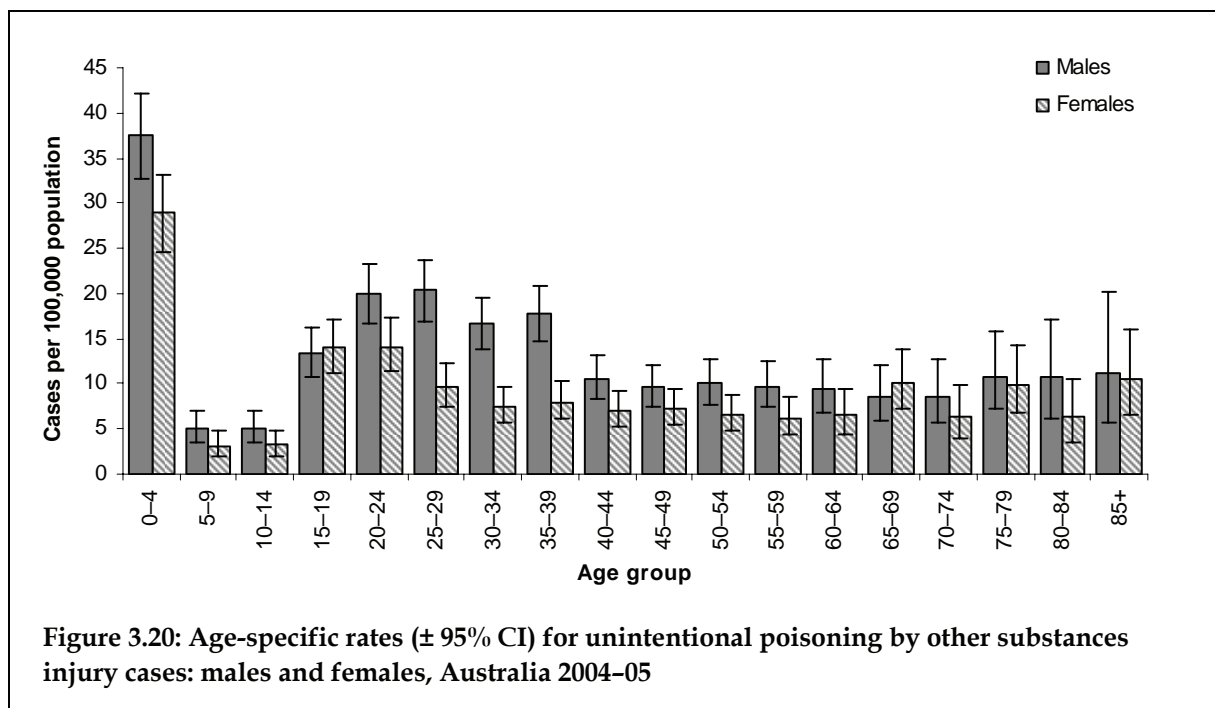
An estimated 2,319 hospitalised injury cases were due to *unintentional* poisoning by non-pharmaceutical substances in 2004–05 (Table 3.19). The age-standardised rate of these hospitalised poisonings due to substances other than pharmaceuticals was 11.6 per 100,000 population.

Intentional/undetermined intent poisonings involving non-pharmaceutical substances (i.e. cases coded to principal diagnoses X65–X69, X86–X90 or Y15–Y19) are discussed in later sections.

Poisoning (other substances)—age and sex

Unlike accidental poisonings due to pharmaceuticals (and like most other types of community injuries), males accounted for a higher proportion of unintentional poisoning by non-pharmaceutical substances cases (59.5%, $n = 1,380$) than females. Accordingly, males had a higher age-standardised rate of accidental poisoning by other substances cases (13.8 per 100,000 population) than females (9.3 per 100,000).

Like pharmaceutical poisonings, however, rates of unintentional poisonings by other substances were highest for children 0–4 years and relatively low for all other ages (Figure 3.20). Male and female rates were quite similar for most age groups, but were significantly different for those aged 25–39 years. Here, the rates for males were 2.0–2.2 times higher than those for females of the same age. Unlike poisonings by pharmaceuticals, rates of hospitalised poisonings by other substances did not increase for older Australians.



Poisoning (other substances)—external cause

The most common first external cause assigned to cases of unintentional poisoning by substances other than pharmaceuticals was X49, accidental poisoning by and exposure to other and unspecified chemicals and noxious substances (Table 3.20). X49 includes poisonings by such substance as corrosive aromatics, acids and caustic alkalis, glues and adhesives, paints and dyes, and poisonous foodstuffs or plants (NCCH 2004). Accidental poisoning by other and unspecified chemicals and noxious substances was the most common cause of poisoning by substances other than pharmaceuticals for every age group. The age-standardised rate of poisoning by other and unspecified chemicals and noxious substances for all ages was 7.4 cases per 100,000 population.

Accidental poisoning due to alcohol (X45) was the second most common cause of hospitalised cases in 2004–05, accounting for 11.5% of the total ($n = 266$). A higher proportion of cases involving females (14.9%, $n = 140$) were attributed to alcohol poisoning than for males (9.1%, $n = 126$). Rates of accidental alcohol poisoning were highest for those aged 15–19; 5.2 cases per 100,000 population.

Table 3.20: First external cause for unintentional poisoning by other substances injury cases: males, females and persons, Australia 2004–05

External cause	Males	Females	Persons
Accidental poisoning by & exposure to alcohol (X45)	126 (9.1%)	140 (14.9%)	266 (11.5%)
Accidental poisoning by & exposure to organic solvents & halogenated hydrocarbons & their vapours (X46)	134 (9.7%)	52 (5.5%)	186 (8.0%)
Accidental poisoning by & exposure to other gases & vapours (X47)	158 (11.4%)	67 (7.1%)	225 (9.7%)
Accidental poisoning by & exposure to pesticides (X48)	107 (7.8%)	57 (6.1%)	164 (7.1%)
Accidental poisoning by & exposure to other & unspecified chemicals & noxious substances (X49)	855 (62.0%)	623 (66.3%)	1,478 (63.7%)
Total	1,380	939	2,319

Poisoning (other substances)—place and activity

Unlike unintentional pharmaceutical poisonings, only a third of accidental poisoning by other substances cases were reported as having occurred in the home (35.0%, $n = 811$ Table 3.21). However, a higher proportion of poisoning by other substances was assigned an unspecified place of occurrence (42.3% of cases, compared to 29.5% of poisonings by pharmaceuticals). Patterns of place of occurrence for poisoning by other substances cases were relatively similar for males and females, other than a slightly higher proportion of cases involving females occurring in the home than for males (39.9% vs. 31.6%) and a much higher proportion of cases involving males occurring in industrial and construction areas than for females (9.8% vs. 0.7%).

Table 3.21: Place of occurrence for poisoning by other substances injury cases: males, females and persons, Australia 2004–05

Place of occurrence	Males	Females	Persons
Home	436 (31.6%)	375 (39.9%)	811 (35.0%)
Residential institution	8 (0.6%)	17 (1.8%)	25 (1.1%)
School	12 (0.9%)	6 (0.6%)	18 (0.8%)
Health service area	14 (1.0%)	9 (1.0%)	23 (1.0%)
Other specified institution & public administrative area	* (0.2%)	* (0.4%)	* (0.3%)
Sports & athletics area	* (0.4%)	* (0.4%)	9 (0.4%)
Street & highway	* (0.6%)	* (0.4%)	12 (0.5%)
Shop & store	13 (0.9%)	11 (1.2%)	24 (1.0%)
Cafe, hotel & restaurant	64 (4.6%)	69 (7.3%)	133 (5.7%)
Other & unspecified trade & service area	15 (1.1%)	8 (0.9%)	23 (1.0%)
Industrial & construction area	135 (9.8%)	7 (0.7%)	142 (6.1%)
Farm	* (2.0%)	* (0.2%)	29 (1.3%)
Other specified place of occurrence	56 (4.1%)	23 (2.4%)	79 (3.4%)
Unspecified place of occurrence	583 (42.2%)	398 (42.4%)	981 (42.3%)
Place not reported/not applicable	* (0.1%)	* (0.2%)	* (0.1%)
Total	1,380	939	2,319

* Small case counts have been suppressed.

The reported activity at the time of the unintentional poisoning by substances other than pharmaceutical incident indicates that males were more likely to be poisoned while working for income (20.3% of cases involving males) than females (5.1%, Table 3.22). No one particular industry stood out amongst these working for income cases, with 46.6% described as 'other' and 'unspecified' work for income.

Conversely, a higher proportion of poisoning by other substances cases involving females occurred while 'resting, sleeping, eating or engaging in other vital activities' (30.4%, $n = 285$) than cases involving males (16.6%, $n = 229$). This is consistent with a higher proportion of females being poisoned in the home.

Table 3.22: Activity at time of occurrence for unintentional poisoning by other substances injury cases: males, females and persons, Australia 2004–05

Activity	Males	Females	Persons
While engaged in sports	* (0.7%)	* (0.2%)	11 (0.5%)
While engaged in leisure	16 (1.2%)	18 (1.9%)	34 (1.5%)
While working for income	280 (20.3%)	48 (5.1%)	328 (14.1%)
While engaged in other types of work	92 (6.7%)	39 (4.2%)	131 (5.6%)
While resting, sleeping, eating, etc.	229 (16.6%)	285 (30.4%)	514 (22.2%)
Other specified activity	243 (17.6%)	193 (20.6%)	436 (18.8%)
Unspecified activity	505 (36.6%)	348 (37.1%)	853 (36.8%)
Activity not reported/not applicable	* (0.4%)	* (0.6%)	12 (0.5%)
Total	1,380	939	2,319

* Small case counts have been suppressed.

Poisoning (other substances)—principal diagnosis

The principal diagnoses assigned to unintentional poisoning by other substances cases were a little more varied than those of cases of accidental pharmaceutical poisonings. Eight in ten cases of poisoning by substances other than pharmaceuticals were given a principal diagnosis describing ‘toxic effects of non-medical substances’. Most frequently, these were codes describing toxic effects of noxious substances eaten as food, other than seafood (T62: 27.0%, $n = 627$) and the toxic effects of alcohol (T51: 10.5%, $n = 244$). Both of these diagnoses, and toxic effects diagnoses more generally, were proportionately more common for females than males (Table 3.23).

A further 15.0% of unintentional poisoning by non-pharmaceutical substances cases received principal diagnoses describing burns ($n = 348$). Of these, burns to the eye and adnexa were most common (T26: 5.0%, $n = 116$) and this and all other types of burns were more proportionately more common for males than for females.

Similar to accidental pharmaceutical poisoning cases, hospitalised cases of accidental poisoning by other substances were strongly associated with young age (see Figure 3.20, previously). The biggest difference observed was for cases attributed to T52, toxic effects of organic solvents: 24.9% of cases involving very young children recorded this principal diagnosis compared to only 3.7% of cases for older children and adults.

Conversely, a higher proportion of cases involving people aged five years and older were assigned a principal diagnosis describing burns (16.0%, compared to 10.5% of children 0–4 years). Burns to the eye and adnexa (T26) showed the largest age-related differential, with 1.9% of cases involving very young children attributed this principal diagnosis compared to 5.7% of cases involving older children and adults.

As for unintentional pharmaceutical poisonings, the principal diagnoses of most cases of accidental poisoning by other substances indicated injuries not specified by body region (97.5%, $n = 2,262$) and the nature of the injury was classed as poisoning/toxic effect (81.5%, $n = 1,889$).

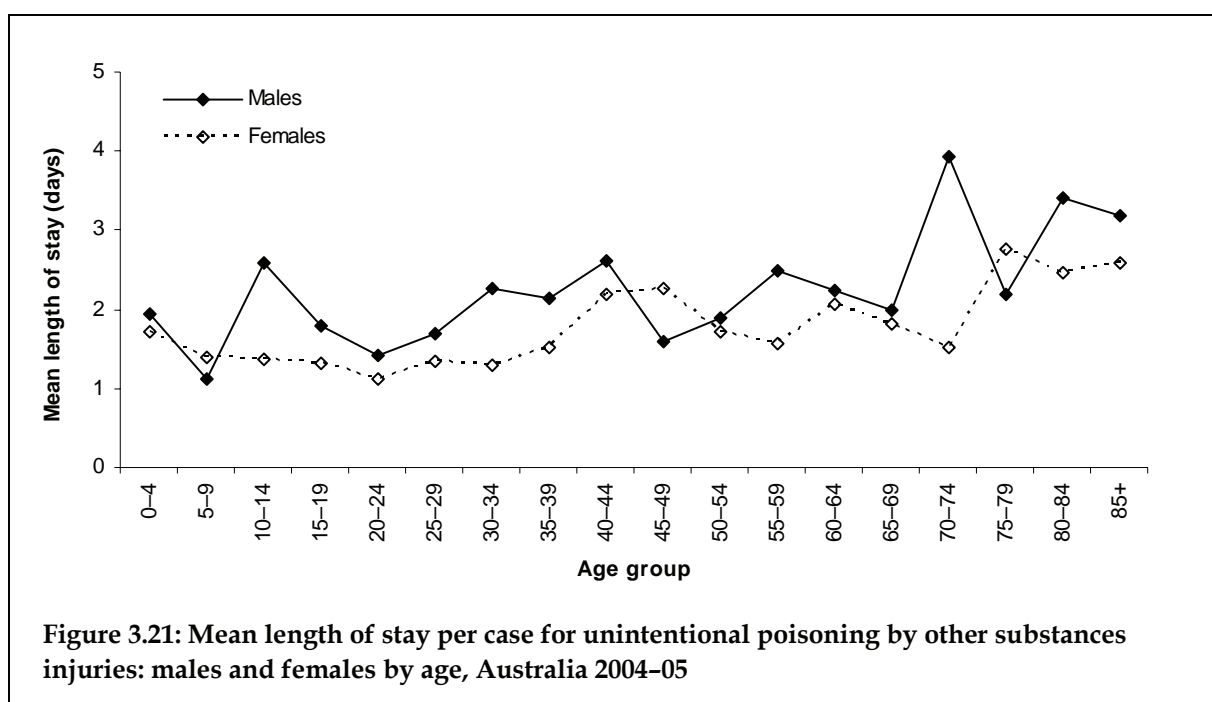
Table 3.23: Principal diagnosis for unintentional poisoning by other substances injury cases: males, females and persons, Australia 2004–05

Principal diagnosis	Males	Females	Persons
Injuries to the head & upper body	40 (2.9%)	14 (1.5%)	54 (2.3%)
Injuries to the hip & lower body	* (0.1%)	* (0.1%)	* (0.1%)
Effects of foreign body entering through natural orifice	14 (1.0%)	7 (0.7%)	21 (0.9%)
<i>Burns</i>	<i>267 (19.3%)</i>	<i>81 (8.6%)</i>	<i>348 (15.0%)</i>
Burn of head & neck (T20)	25 (1.8%)	11 (1.2%)	36 (1.6%)
Burn of trunk (T21)	* (1.5%)	* (0.2%)	23 (1.0%)
Burn of shoulder & upper limb, except wrist & hand (T22)	17 (1.2%)	6 (0.6%)	23 (1.0%)
Burn of wrist & hand (T23)	36 (2.6%)	8 (0.9%)	44 (1.9%)
Burn of hip & lower limb, except ankle & foot (T24)	* (2.4%)	* (0.4%)	37 (1.6%)
Burn of ankle & foot (T25)	28 (2.0%)	6 (0.6%)	34 (1.5%)
Burn of eye & adnexa (T26)	84 (6.1%)	32 (3.4%)	116 (5.0%)
Burn of respiratory tract (T27)	* (0.3%)	0 (0.0%)	* (0.2%)
Burn of other internal organs (T28)	16 (1.2%)	12 (1.3%)	28 (1.2%)
Burns of multiple body regions (T29)	* (0.2%)	0 (0.0%)	* (0.1%)
Poisoning by drugs, medicaments & biological substances	11 (0.8%)	17 (1.8%)	28 (1.2%)
<i>Toxic effects of non-medical substances</i>	<i>1,043 (75.6%)</i>	<i>818 (87.1%)</i>	<i>1,861 (80.3%)</i>
Toxic effect of alcohol (T51)	117 (8.5%)	127 (13.5%)	244 (10.5%)
Toxic effect of organic solvents (T52)	115 (8.3%)	61 (6.5%)	176 (7.6%)
Toxic effect of halogen derivatives of aliphatic & aromatic hydrocarbons (T53)	35 (2.5%)	11 (1.2%)	46 (2.0%)
Toxic effect of corrosive substances (T54)	76 (5.5%)	49 (5.2%)	125 (5.4%)
Toxic effect of soaps & detergents (T55)	20 (1.4%)	12 (1.3%)	32 (1.4%)
Toxic effect of metals (T56)	31 (2.2%)	16 (1.7%)	47 (2.0%)
Toxic effect of other inorganic substances (T57)	0 (0.0%)	* (0.4%)	* (0.2%)
Toxic effect of carbon monoxide (T58)	45 (3.3%)	20 (2.1%)	65 (2.8%)
Toxic effect of other gases, fumes & vapours (T59)	110 (8.0%)	49 (5.2%)	159 (6.9%)
Toxic effect of pesticides (T60)	91 (6.6%)	48 (5.1%)	139 (6.0%)
Toxic effect of noxious substances eaten as seafood (T61)	39 (2.8%)	41 (4.4%)	80 (3.4%)
Toxic effect of other noxious substances eaten as food (T62)	294 (21.3%)	333 (35.5%)	627 (27.0%)
Toxic effect of aflatoxin & other mycotoxin food contaminants (T64)	0 (0.0%)	* (0.1%)	* (0.0%)
Toxic effect of other & unspecified substances (T65)	70 (5.1%)	46 (4.9%)	116 (5.0%)
Other & unspecified effects of external causes	* (0.1%)	* (0.0%)	* (0.1%)
Certain early complications of trauma	* (0.1%)	* (0.1%)	* (0.1%)
Total	1,380	939	2,319

* Small case counts have been suppressed.

Poisoning (other substances)—length of stay

The total number of patient-days attributed to hospitalised cases of accidental poisoning by substances other than pharmaceuticals in 2004–05 was 4,352. Nearly half of all poisoning by other substances separations were discharged from hospital on the same day as admitted; 46.9%, $n = 1,145$. Including these separations, 82.9% of unintentional poisonings by other substances had a length of stay of only one day ($n = 2,023$). Accordingly, and similar to accidental pharmaceutical poisonings, the mean length of stay for all poisoning by other substances cases was quite short; 1.9 days. Females had a slightly shorter mean length of stay (1.7 days) than males (2.0 days). Mean lengths of stay per case increased slightly with age (Figure 3.21). The fluctuations apparent in Figure 3.21 are largely due to the relatively small number of cases underlying the means.



Poisoning (other substances)—state of usual residence

The pattern of rates of accidental poisoning by substances other than pharmaceuticals by state of usual residence was slightly different to that for pharmaceutical poisoning cases. While the age-standardised rate for residents of South Australia was quite high for poisonings by other substances, the highest rate was observed for residents of Queensland (14.0 per 100,000). Similar to unintentional pharmaceutical poisonings however, the lowest rate of hospitalised poisoning by other substances cases was observed for residents of the Australian Capital Territory (6.3 per 100,000), and rates for cases involving residents of Western Australia were quite low also (9.6 per 100,000).

This pattern held for age-standardised rates hospitalised poisoning by substances other than pharmaceuticals for both males and females, except that males resident in South Australia had a slightly higher rate than males resident in Queensland (Figure 3.22).

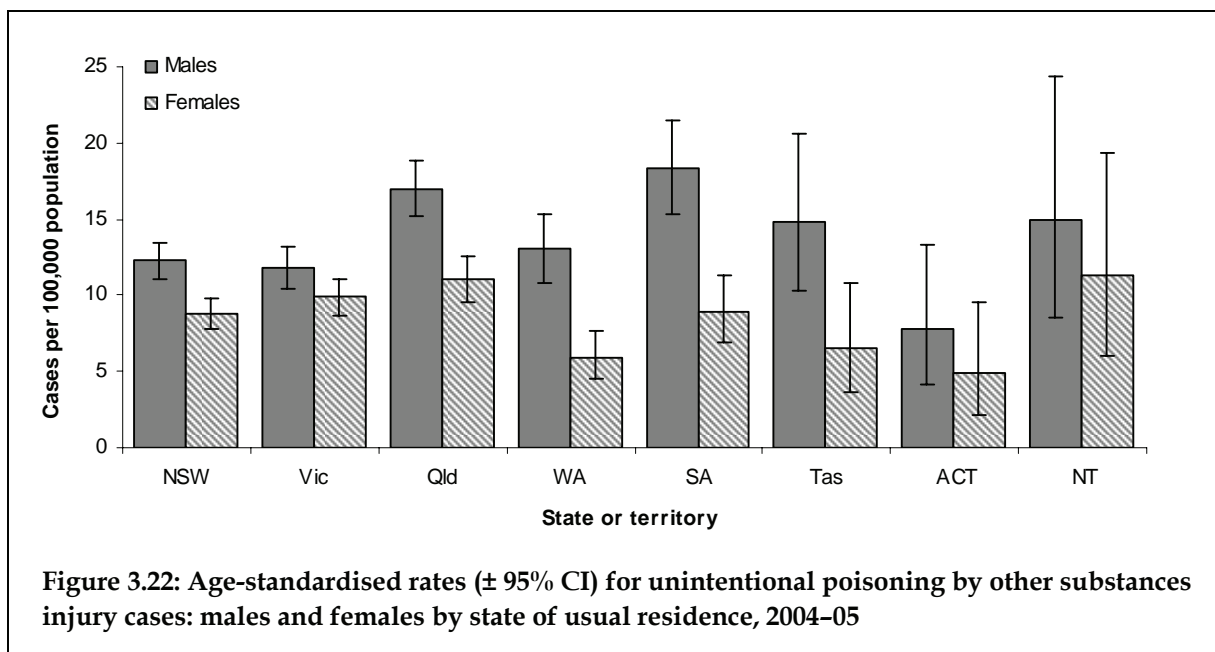


Figure 3.22: Age-standardised rates (± 95% CI) for unintentional poisoning by other substances injury cases: males and females by state of usual residence, 2004-05

Poisoning (other substances)—remoteness of usual residence

The rate of unintentional poisoning by other substances cases according to the remoteness of the person’s usual residence shows a pattern similar to that observed for all community injury; the lowest age-standardised rate was observed for residents of Australia’s Major cities (9.6 per 100,000 population) and the highest rate was observed for residents of Very remote Australia (26.1 per 100,000). This was unlike accidental pharmaceutical poisonings, where no significant pattern was observed.

Figure 3.23 demonstrates that it is largely the rate of cases involving males which is driving this pattern; rates for females were marginally lower in Very remote areas than in Remote Australia. For both males and females, however, the width of the 95% confidence intervals for Outer regional, Remote and Very remote areas suggest that these rates are not significantly different from each other.

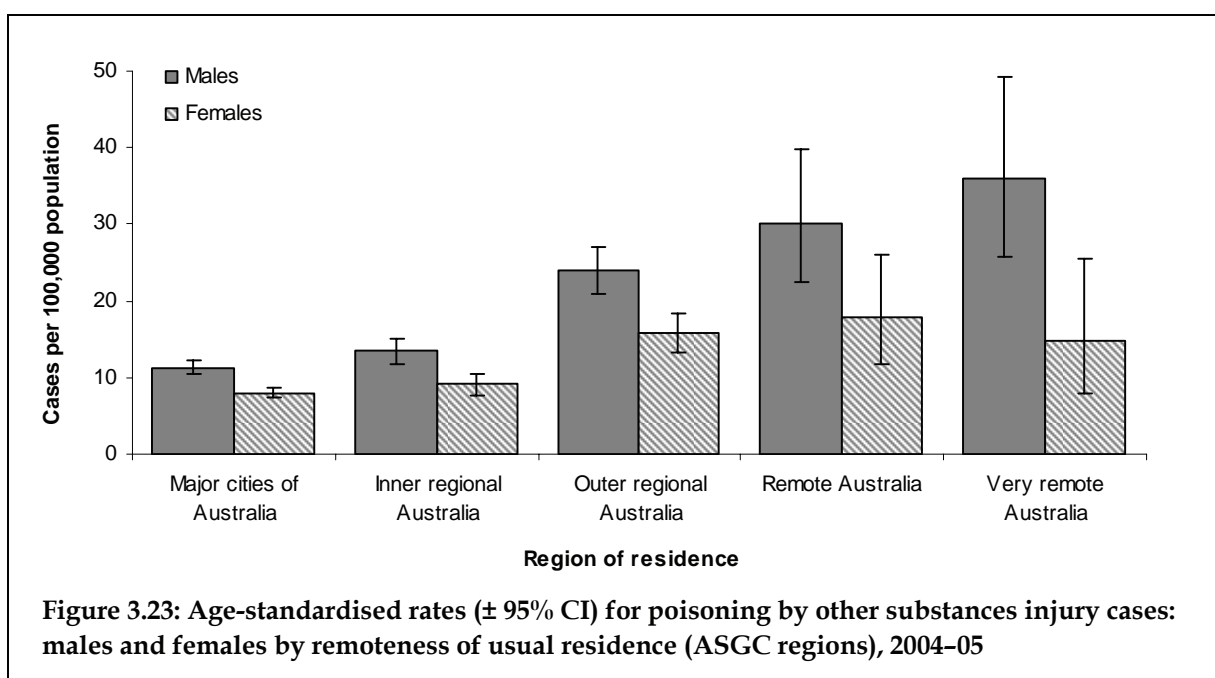


Figure 3.23: Age-standardised rates (± 95% CI) for poisoning by other substances injury cases: males and females by remoteness of usual residence (ASGC regions), 2004-05

3.5 Fall injury cases

ICD-10-AM inclusion criteria:

- Principal diagnosis [S00–T75](#) or [T79](#), and
- First external cause [W00–W19](#), and
- Mode of admission other than ‘transfer from another acute hospital’.

Table 3.24: Key indicators for hospitalised falls injury: males, females and persons, Australia 2004–05

Key indicators	Males	Females	Persons ^(a)
Total number of hospital separations due to falls injury	62,022	77,088	139,112
Falls separations as proportion of all community injury separations	27.7%	48.0%	36.2%
Estimated number of falls injury cases ^(b)	56,830	69,973	126,805
Cases per 100,000 population	565.5	688.7	627.4
Cases per 100,000 population—age-standardised ^(c)	592.1	595.2	607.0
Total patient-days due to falls injury ^{(d), (e)}	275,642	496,354	772,004
Mean patient-days per case	4.9	7.1	6.1

(a) Includes 2 separations for which sex was not reported.

(b) Excludes records with a mode of admission of ‘transfer from another acute hospital’.

(c) Standardised to the Australian estimated resident population 30th June 2001.

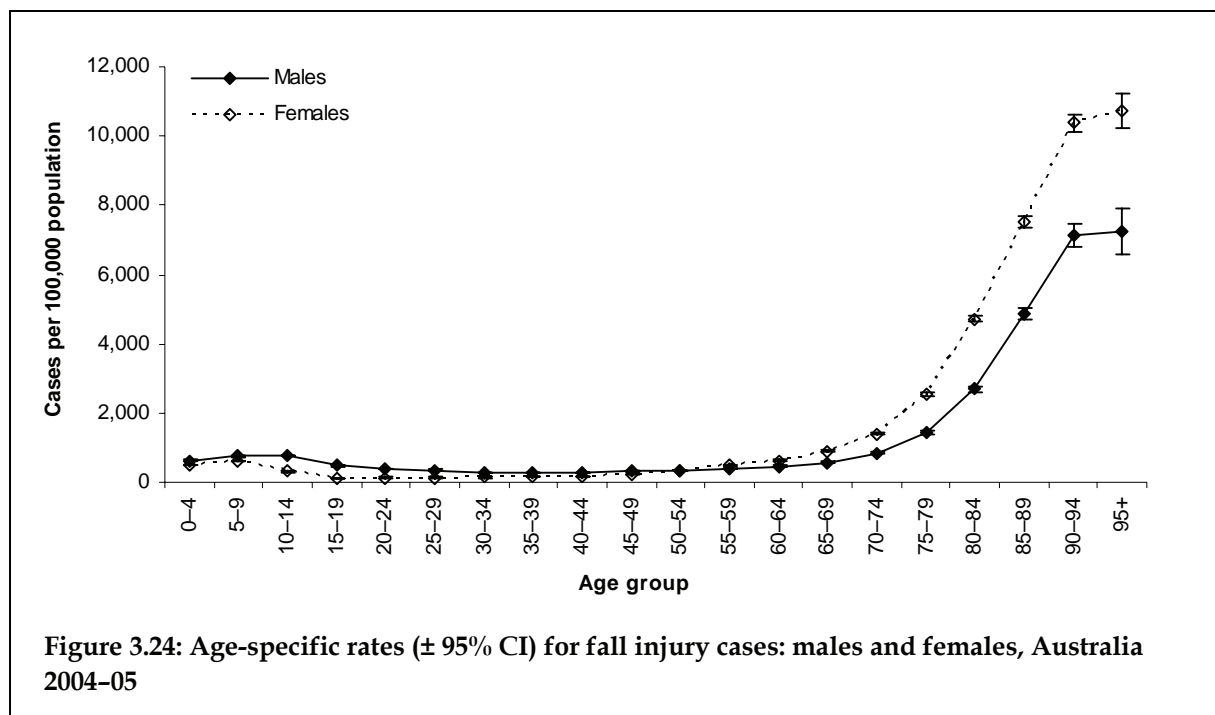
(d) Includes records with a mode of admission of ‘transfer from another acute hospital’ as contributing to hospital burden due to injury.

(e) Includes 8 days of patient care for which sex was not reported.

An estimated 126,805 hospitalised injury cases were due to unintentional falls in 2004–05 (Table 3.24). The age-standardised rate of hospitalised injurious fall cases was 607.0 per 100,000 population.

Falls—age and sex

Males comprised less than half of all unintentional fall injury cases (44.8%, $n = 56,830$) but age-standardised rates of cases were very similar for both males and females; 592.1 per 100,000 population for males compared to 595.2 per 100,000 for females. With reference to both the National Injury Prevention and Safety Promotion Plan: 2004–2014 and the National Falls Prevention for Older People Plan: 2004 Onwards (NPHP 2004; NPHP 2005), the age-standardised rate of unintentional falls cases for Australians aged 65 years and older was 2,295.9 per 100,000 population. While rates of hospitalised falls injury for both males and females were observed to increase substantially from the age of 75 years, rates for older females were considerably higher than those for older males (Figure 3.24). More detailed information regarding fall-related hospital separations specifically involving older Australians can also be found in the recent NISU report by Bradley and Harrison (2007).



Falls—external cause

The leading cause of hospitalised accidental fall cases for both males and females was W01, falls due to slipping, tripping and stumbling (Table 3.25). Falls attributed to tripping were most common (15.0% of all fall cases, $n = 18,970$), while slipping and stumbling accounted for 8.7% and 2.9% of cases, respectively. A higher proportion of cases involving females were attributed to slipping, tripping and stumbling (32.5%, $n = 22,774$) than for males (19.2%, 10,931).

The most frequent type of hospitalised fall for younger people 0-14 years in 2004-05 was a fall involving playground equipment (Table 3.26). For teenagers and young adults aged 15-24 years, falls due to collision with, or pushing by, another person (W03) were the most common cause of hospitalised fall injuries. Many of these likely occurred while playing sport (discussed further below, see also Flood & Harrison 2006). Males had a higher rate of hospitalised falls at these ages (Figure 3.24).

For adults aged 25 years and older, when rates for females approach, and then at ages older than 50 years, exceed those for males, falls due to slipping, tripping and stumbling were the most common cause of hospitalisation in each age group. The ratio of cases attributed to slips to cases attributed to trips decreased with age for adults aged 25 and older. That is, while more slips than trips were observed for adults 25-44 years, more trips were the recorded cause of hospitalised falls for people aged 45 years and older.

The frequency of hospitalised fall cases attributed to beds, chairs and other furniture (W06-W08) by age had distinctly bimodal distributions, with high numbers of cases observed for children aged 0-4 years and adults aged 65 years and older. As has been recently discussed (Bradley 2007; Bradley & Harrison 2007), cases of ladder-related falls increase with age and were particularly common for people aged 45 years and older.

Table 3.25: First external cause for fall injury cases: males, females and persons, Australia 2004–05

External cause	Males	Females	Persons *
Fall on same level involving ice & snow (W00)	30 (0.1%)	28 (0.0%)	58 (0.0%)
Fall on same level from slipping (W01.0)	3,665 (6.4%)	7,410 (10.6%)	11,075 (8.7%)
Fall on same level from tripping (W01.1)	5,849 (10.3%)	13,121 (18.8%)	18,970 (15.0%)
Fall on same level from stumbling (W01.2)	1,417 (2.5%)	2,243 (3.2%)	3,661 (2.9%)
<i>All slips, trips & stumbles (W01)</i>	<i>10,931 (19.2%)</i>	<i>22,774 (32.5%)</i>	<i>33,706 (26.6%)</i>
Fall involving roller-skates (W02.0)	196 (0.3%)	172 (0.2%)	368 (0.3%)
Fall involving skateboard (W02.1)	1,692 (3.0%)	277 (0.4%)	1,969 (1.6%)
Fall involving water-ski (W02.2)	85 (0.1%)	35 (0.1%)	120 (0.1%)
Fall involving snow ski (W02.3)	177 (0.3%)	146 (0.2%)	323 (0.3%)
Fall involving snow board (W02.4)	162 (0.3%)	34 (0.0%)	196 (0.2%)
Fall involving ice-skates (W02.5)	44 (0.1%)	68 (0.1%)	112 (0.1%)
<i>All falls involving ice-skates etc (W02)</i>	<i>2,356 (4.1%)</i>	<i>732 (1.0%)</i>	<i>3,088 (2.4%)</i>
Other fall on same level due to collision with, or pushing by, another person (W03)	3,579 (6.3%)	679 (1.0%)	4,258 (3.4%)
Fall while being carried or supported by other persons (W04)	220 (0.4%)	233 (0.3%)	453 (0.4%)
Fall involving wheelchair (W05)	293 (0.5%)	326 (0.5%)	619 (0.5%)
Fall involving bed (W06)	1,531 (2.7%)	2,665 (3.8%)	4,196 (3.3%)
Fall involving chair (W07)	1,508 (2.7%)	2,227 (3.2%)	3,735 (2.9%)
Fall involving other furniture (W08)	447 (0.8%)	460 (0.7%)	907 (0.7%)
Fall involving tree house (W09.0)	42 (0.1%)	33 (0.0%)	75 (0.1%)
Fall involving flying fox (W09.1)	189 (0.3%)	170 (0.2%)	359 (0.3%)
Fall involving playground climbing apparatus (W09.2)	893 (1.6%)	973 (1.4%)	1,866 (1.5%)
Fall involving slide (W09.3)	350 (0.6%)	197 (0.3%)	547 (0.4%)
Fall involving swing (W09.4)	335 (0.6%)	246 (0.4%)	581 (0.5%)
Fall involving seesaw (W09.5)	30 (0.1%)	25 (0.0%)	55 (0.0%)
Fall involving trampoline (W09.6)	797 (1.4%)	641 (0.9%)	1,439 (1.1%)
Fall involving other specified playground equipment (W09.8)	178 (0.3%)	131 (0.2%)	309 (0.2%)
Fall involving unspecified playground equipment (W09.9)	275 (0.5%)	150 (0.2%)	425 (0.3%)
<i>All falls involving playground equipment (W09)</i>	<i>3,089 (5.4%)</i>	<i>2,566 (3.7%)</i>	<i>5,656 (4.5%)</i>
Fall on & from stairs & steps (W10)	3,283 (5.8%)	5,089 (7.3%)	8,372 (6.6%)
Fall on & from ladder (W11)	3,187 (5.6%)	659 (0.9%)	3,846 (3.0%)
Fall on & from scaffolding (W12)	292 (0.5%)	8 (0.0%)	300 (0.2%)
Fall from, out of or through building or structure (W13)	2,880 (5.1%)	681 (1.0%)	3,561 (2.8%)
Fall from tree (W14)	903 (1.6%)	288 (0.4%)	1,191 (0.9%)
Fall from cliff (W15)	227 (0.4%)	98 (0.1%)	325 (0.3%)
Diving or jumping into water causing injury other than drowning or submersion (W16)	357 (0.6%)	95 (0.1%)	452 (0.4%)
Other fall from one level to another (W17)	3,388 (6.0%)	1,835 (2.6%)	5,223 (4.1%)
Other fall on same level (W18)	8,167 (14.4%)	11,654 (16.7%)	19,821 (15.6%)
Unspecified fall (W19)	10,162 (17.9%)	16,876 (24.1%)	27,038 (21.3%)
Total	56,830	69,973	126,805

* Persons includes 2 cases for which sex was not reported.

Table 3.26: First external cause for fall injury cases by age, Australia 2004–05

External cause	0–4	5–14	15–24	25–44	45–64	65+	All ages
Fall on same level involving ice & snow (W00)	*	*	*	18	27	7	58
Fall on same level from slipping (W01.0)	263	558	456	1,264	2,510	6,024	11,075
Fall on same level from tripping (W01.1)	393	1,240	456	1,155	2,832	12,894	18,970
Fall on same level from stumbling (W01.2)	60	212	154	260	437	2,538	3,661
<i>All slips, trips & stumbles (W01)</i>	<i>716</i>	<i>2,010</i>	<i>1,066</i>	<i>2,679</i>	<i>5,779</i>	<i>21,456</i>	<i>33,706</i>
Fall involving roller-skates (W02.0)	*	258	54	37	17	*	368
Fall involving skateboard (W02.1)	48	1,192	502	184	26	17	1,969
Fall involving water-ski (W02.2)	*	9	33	59	17	*	120
Fall involving snow ski (W02.3)	0	23	71	130	87	12	323
Fall involving snow board (W02.4)	0	14	93	84	5	0	196
Fall involving ice-skates (W02.5)	*	46	25	24	16	*	112
<i>All falls involving ice-skates etc (W02)</i>	<i>49</i>	<i>1,542</i>	<i>778</i>	<i>518</i>	<i>168</i>	<i>33</i>	<i>3,088</i>
Other fall on same level due to collision with, or pushing by, another person (W03)	79	1,383	1,531	881	161	223	4,258
Fall while being carried by other persons (W04)	315	76	31	19	7	5	453
Fall involving wheelchair (W05)	*	*	16	69	120	402	619
Fall involving bed (W06)	628	379	58	79	224	2,828	4,196
Fall involving chair (W07)	725	354	61	239	526	1,830	3,735
Fall involving other furniture (W08)	441	125	21	57	82	181	907
Fall involving tree house (W09.0)	36	38	*	*	0	0	75
Fall involving flying fox (W09.1)	27	306	8	10	*	*	359
Fall involving playground climbing apparatus (W09.2)	174	1,685	*	*	0	*	1,866
Fall involving slide (W09.3)	205	317	9	7	*	*	547
Fall involving swing (W09.4)	138	406	26	11	0	0	581
Fall involving seesaw (W09.5)	15	40	0	0	0	0	55
Fall involving trampoline (W09.6)	342	1,019	49	25	*	*	1,439
Fall involving other specified playground equipment (W09.8)	95	196	7	8	*	*	309
Fall involving unspecified playground equipment (W09.9)	130	291	*	*	*	0	425
<i>All falls involving playground equipment (W09)</i>	<i>1,162</i>	<i>4,298</i>	<i>102</i>	<i>66</i>	<i>19</i>	<i>9</i>	<i>5,656</i>
Fall on & from stairs & steps (W10)	421	334	453	1,435	2,029	3,700	8,372
Fall on & from ladder (W11)	23	50	131	815	1,691	1,136	3,846
Fall on & from scaffolding (W12)	*	*	34	102	138	22	300
Fall from, out of or through building or structure (W13)	302	610	634	995	717	303	3,561
Fall from tree (W14)	61	782	90	96	98	64	1,191
Fall from cliff (W15)	5	24	69	97	84	46	325
Diving or jumping into water causing injury other than drowning or submersion (W16)	6	77	171	145	42	11	452
Other fall from one level to another (W17)	741	980	531	1,053	1,060	858	5,223
Other fall on same level (W18)	644	2,062	1,173	1,806	2,260	11,876	19,821
Unspecified fall (W19)	787	1,665	1,099	2,196	3,605	17,686	27,038
Total	7,110	16,764	8,053	13,365	18,837	62,676	126,805

Note: Shading denotes highest specific category for each age group.

* Small case counts have been suppressed.

Falls—place and activity

The home was the most commonly specified place of occurrence for hospitalised fall injuries for all age groups other than young people aged 5–24 years (Table 3.27). More than a third of all unintentional fall cases were reported to have occurred in the home or the driveway to the home (combined, 37.4%, Table 3.28). A higher proportion of cases for females occurred in the home itself (42.4%), than for cases involving males (29.8%). This is most likely due to the high rate of falls for older females. Similarly, a higher proportion of cases involving females occurred in aged care facilities (14.9%) than cases for males (5.7%). In all, 10.7% of all hospitalised injuries resulting from an unintentional fall in 2004–05 occurred in aged care facilities ($n = 13,624$).

On the other hand, higher proportions of hospitalised fall cases involving males were reported to have occurred in sports and athletics areas (total sports; 9.0%, $n = 5,105$) than cases involving females (2.2%, $n = 1,531$) and sports facilities were the most common specified place of occurrence for hospitalised fall injuries for people aged 15–24 years in 2004–05. Higher proportions of hospitalised falls involving males were also reported to have occurred in industrial and construction areas (total industrial and construction; 1.5%, $n = 870$) than cases involving females (0.1%, $n = 91$). Very small proportions of cases for each age group were reported to have occurred in industrial and construction areas, with the largest number of cases occurring for the 25–44 years group. These cases represented 2.9% of the total number of hospitalised falls for people of this age.

Three in ten hospitalised fall cases in 2004–05 were ascribed an ‘unspecified’ place of occurrence code (29.0%, $n = 36,836$). Ten per cent more cases involving males were given an unspecified code than for cases involving females (34.6% vs. 24.6%, respectively). A particularly high proportion of hospitalised falls were coded with an unspecified place of occurrence for the 25–44 years age group, for which 43.0% ($n = 5,741$) were unspecified. The lowest proportion of hospitalised falls coded with an unspecified place of occurrence was observed for people aged 65 years and older (17.3%).

Table 3.27: Place of occurrence for fall injury cases by age, Australia 2004–05

Place of occurrence	0–4	5–14	15–24	25–44	45–64	65+	All ages
Home	3,370	2,690	861	3,081	6,861	30,530	47,393
Residential institution	9	16	42	112	369	13,628	14,176
School, other institution & public administration area	415	3,711	336	204	384	1,574	6,624
Sports & athletics area	82	2,086	2,114	1,572	494	288	6,636
Street & highway	38	170	284	515	1,002	2,694	4,703
Trade & service area	228	135	349	726	975	1,980	4,393
Industrial & construction area	7	7	133	386	383	45	961
Farm	10	17	29	76	126	108	366
Other specified place of occurrence	279	874	615	950	982	991	4,691
Unspecified place of occurrence/ Place not reported/not applicable	2,672	7,058	3,290	5,743	7,261	10,838	36,862
Total	7,110	16,764	8,053	13,365	18,837	62,676	126,805

Note: Shading denotes highest specific category for each age group.

Table 3.28: Place of occurrence for fall injury cases: males, females and persons, Australia 2004–05

Place of occurrence	Males	Females	Persons *
Driveway to home	287 (0.5%)	466 (0.7%)	753 (0.6%)
Other & unspecified place in home	16,957 (29.8%)	29,680 (42.4%)	46,639 (36.8%)
Aged care facilities	3,233 (5.7%)	10,391 (14.9%)	13,624 (10.7%)
Other & unspecified residential institution	257 (0.5%)	295 (0.4%)	552 (0.4%)
School	2,760 (4.9%)	1,696 (2.4%)	4,456 (3.5%)
Health service area	497 (0.9%)	962 (1.4%)	1,459 (1.2%)
Other specified institution & public administrative area	248 (0.4%)	461 (0.7%)	709 (0.6%)
Sporting grounds (outdoor)	3,729 (6.6%)	632 (0.9%)	4,361 (3.4%)
Sporting hall (indoor)	301 (0.5%)	281 (0.4%)	582 (0.5%)
Swimming centre	63 (0.1%)	46 (0.1%)	109 (0.1%)
Racetrack & racecourse	38 (0.1%)	26 (0.0%)	64 (0.1%)
Skating rink	267 (0.5%)	117 (0.2%)	384 (0.3%)
Skiing	311 (0.5%)	182 (0.3%)	493 (0.4%)
Other specified sports & athletic areas	185 (0.3%)	134 (0.2%)	319 (0.3%)
Sports & athletic areas, unspecified	211 (0.4%)	113 (0.2%)	324 (0.3%)
Roadway	668 (1.2%)	649 (0.9%)	1,317 (1.0%)
Sidewalk	1,240 (2.2%)	1,894 (2.7%)	3,134 (2.5%)
Other & unspecified public highway, street or road	118 (0.2%)	134 (0.2%)	252 (0.2%)
Shop & store	565 (1.0%)	1,312 (1.9%)	1,877 (1.5%)
Commercial garage	53 (0.1%)	30 (0.0%)	83 (0.1%)
Office building	31 (0.1%)	37 (0.1%)	68 (0.1%)
Cafe, hotel & restaurant	960 (1.7%)	715 (1.0%)	1,675 (1.3%)
Other & unspecified trade & service area	355 (0.6%)	335 (0.5%)	690 (0.5%)
Construction area	430 (0.8%)	28 (0.0%)	458 (0.4%)
Factory & plant	195 (0.3%)	35 (0.1%)	230 (0.2%)
Mine & quarry	47 (0.1%)	5 (0.0%)	52 (0.0%)
Oil & gas extraction	6 (0.0%)	0 (0.0%)	6 (0.0%)
Other & unspecified industrial & construction area	192 (0.3%)	23 (0.0%)	215 (0.2%)
Farm	275 (0.5%)	91 (0.1%)	366 (0.3%)
Area of still water	67 (0.1%)	44 (0.1%)	111 (0.1%)
Stream of water	145 (0.3%)	69 (0.1%)	214 (0.2%)
Large area of water	200 (0.4%)	62 (0.1%)	262 (0.2%)
Beach	326 (0.6%)	196 (0.3%)	522 (0.4%)
Forest	67 (0.1%)	81 (0.1%)	148 (0.1%)
Other specified countryside	223 (0.4%)	160 (0.2%)	383 (0.3%)
Car park (parking lot)	101 (0.2%)	175 (0.3%)	276 (0.2%)
Other specified place of occurrence	1,562 (2.7%)	1,213 (1.7%)	2,775 (2.2%)
Unspecified place of occurrence	19,644 (34.6%)	17,192 (24.6%)	36,836 (29.0%)
Place not reported/not applicable	16 (0.0%)	11 (0.0%)	27 (0.0%)
Total	56,830	69,973	126,805

* Persons includes 2 cases for which sex was not reported.

Table 3.29: Activity at time of occurrence for fall injury cases: males, females and persons, Australia 2004–05

Activity	Males	Females	Persons *
While engaged in sports			
Team ball sports	5,111 (9.0%)	771 (1.1%)	5,882 (4.6%)
Team bat or stick sports	261 (0.5%)	71 (0.1%)	332 (0.3%)
Boating sports	17 (0.0%)	14 (0.0%)	31 (0.0%)
Individual water sports	439 (0.8%)	138 (0.2%)	577 (0.5%)
Ice & snow sports	471 (0.8%)	295 (0.4%)	766 (0.6%)
Individual athletic activities	174 (0.3%)	238 (0.3%)	412 (0.3%)
Acrobatic sports	88 (0.2%)	147 (0.2%)	236 (0.2%)
Aesthetic activities	42 (0.1%)	191 (0.3%)	233 (0.2%)
Racquet sports	134 (0.2%)	163 (0.2%)	297 (0.2%)
Target & precision sports	100 (0.2%)	97 (0.1%)	197 (0.2%)
Combative sports	60 (0.1%)	20 (0.0%)	80 (0.1%)
Equestrian activities	11 (0.0%)	16 (0.0%)	27 (0.0%)
Adventure sports	63 (0.1%)	40 (0.1%)	103 (0.1%)
Wheeled non-motored sports	1,463 (2.6%)	370 (0.5%)	1,833 (1.4%)
Aero sports	30 (0.1%)	7 (0.0%)	37 (0.0%)
Other school recreation activity	337 (0.6%)	274 (0.4%)	611 (0.5%)
Other specified sport & exercise activity	269 (0.5%)	192 (0.3%)	461 (0.4%)
Unspecified sport & exercise activity	127 (0.2%)	87 (0.1%)	214 (0.2%)
<i>Total sports</i>	<i>9,197 (16.2%)</i>	<i>3,131 (4.5%)</i>	<i>12,329 (9.7%)</i>
While engaged in leisure	1,774 (3.1%)	1,444 (2.1%)	3,218 (2.5%)
While working for income	2,855 (5.0%)	853 (1.2%)	3,708 (2.9%)
While engaged in other types of work	2,382 (4.2%)	3,028 (4.3%)	5,410 (4.3%)
While resting, sleeping, eating, etc.	3,526 (6.2%)	7,729 (11.0%)	11,255 (8.9%)
Other specified activity	9,116 (16.0%)	11,364 (16.2%)	20,480 (16.2%)
Unspecified activity	27,928 (49.1%)	42,377 (60.6%)	70,306 (55.4%)
Activity not reported/not applicable	52 (0.1%)	47 (0.1%)	99 (0.1%)
Total	56,830	69,973	126,805

* Persons includes 2 cases for which sex was not reported.

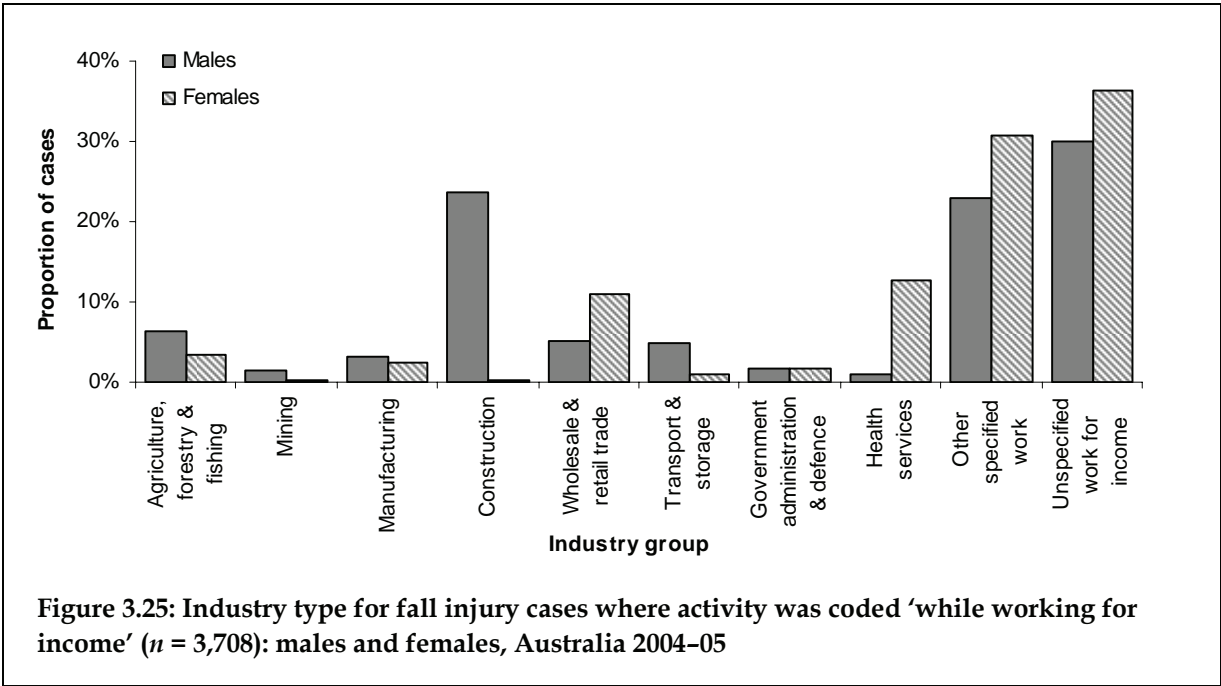
More than half of all hospitalised fall injury cases in 2004–05 had ‘unspecified’ reported as the activity at the time of the injury incident (55.4%, $n = 70,306$). A higher proportion of cases for females had an unspecified activity code (60.6%) than for males (49.1%, see Table 3.29). Cases coded to ‘other specified activity’ accounted for a further 16.2% unintentional falls, with similar proportions of cases assigned this code for both males and females.

The most common specific activity engaged in at the time of a fall injury requiring hospitalisation was sport; one in ten cases were described as having occurred while engaged in sporting activities (9.7%). Three times the number of fall cases attributed to sport involved males than involved females (9,197 vs. 3,131, respectively), representing four times the proportion of cases (16.2% vs. 4.5%). The most frequent sports resulting in a hospitalised fall injury for males were team ball sports (9.0% of all male cases, $n = 5,111$) and wheeled non-motored sports (e.g. cycling, skateboarding; 2.6%, $n = 1,463$). Team ball

sports were also the most common sporting activities resulting in a hospitalised fall injury for females (1.1% of all female cases, $n = 771$).

The second most common specific activity engaged in at the time of a fall injury requiring hospitalisation was ‘while resting, sleeping, eating or engaging in other vital activities’, accounting for 8.9% of falls cases in 2004–05. A higher proportion of cases involving females were assigned this activity code (11.0%, $n = 7,729$) than cases involving males (6.2%, $n = 3,526$), consistent with the high rate of falls for older females and falls occurring in the home.

Less than three per cent of hospitalised fall cases occurred while working for income (2.9%, $n = 3,708$) and falls while working for income were more frequent for males than for females. For males, a quarter of falls while working for income (23.7%, $n = 678$) occurred while working in the construction industry, consistent with the place of occurrence data discussed above. For females, one in eight hospitalised falls while working for income (12.7%, $n = 108$) occurred while working in the health service industries. However, ‘other specified work for income’ and ‘unspecified work for income’ codes accounted for more than half of all cases of hospitalised falls while working for income for both males and females.



Falls—principal diagnosis

Hospitalised cases of unintentional falls injury in 2004–05 most commonly resulted in injuries to the elbow and forearm (19.4%, $n = 24,537$) and injuries to the head (19.1%, $n = 24,179$). Injuries of these types represented a higher proportion of cases involving males than for cases involving females (Table 3.30). Injuries to the hip and thigh were the third most common principal diagnosis for falls cases (18.2%, $n = 23,022$), and a higher proportion of cases involving females (22.9%) had these injuries than cases involving males (12.3%). This disparity is due to the differences in rates of falls by age and sex, with injuries to the hip and thigh being the leading type of injury for people aged 65 years and older, and females outnumber males in this age group (Table 3.31).

While injuries to the elbow and forearm were the most common hospitalised fall injury for persons overall, such injuries were the leading cause of injury for only the 5–14 years age group (Table 3.31). Children younger than this were predominately hospitalised due to head injuries, as were teenagers and young adults 15–24 years. Adults aged 25–64 years had injuries to the knee and lower leg most frequently reported as the principal diagnosis. As described above, injuries to the hip and thigh were the leading type of injury for people aged 65 years and older, accounting for a third (32.2%) of all hospitalised injury cases due to a fall for people of this age and 87.6% of *all* cases (at any age) with a principal diagnosis of this type.

Table 3.30: Principal diagnosis groups for fall injury cases: males, females and persons, Australia 2004–05

Principal diagnosis	Males	Females	Persons [†]
Injuries to the head	12,916 (22.7%)	11,263 (16.1%)	24,179 (19.1%)
Injuries to the neck	1,062 (1.9%)	760 (1.1%)	1,822 (1.4%)
Injuries to the thorax	3,192 (5.6%)	2,770 (4.0%)	5,962 (4.7%)
Injuries to the abdomen, lower back, lumbar spine & pelvis	3,664 (6.4%)	6,280 (9.0%)	9,944 (7.8%)
Injuries to the shoulder & upper arm	5,392 (9.5%)	7,255 (10.4%)	12,647 (10.0%)
Injuries to the elbow & forearm	11,577 (20.4%)	12,959 (18.5%)	24,537 (19.4%)
Injuries to the wrist & hand	2,687 (4.7%)	1,555 (2.2%)	4,242 (3.3%)
Injuries to the hip & thigh	7,002 (12.3%)	16,019 (22.9%)	23,022 (18.2%)
Injuries to the knee & lower leg	7,230 (12.7%)	9,189 (13.1%)	16,419 (12.9%)
Injuries to the ankle & foot	1,589 (2.8%)	1,363 (1.9%)	2,952 (2.3%)
Injuries involving multiple body regions	45 (0.1%)	47 (0.1%)	92 (0.1%)
Injuries to unspecified parts of trunk, limb or body region	313 (0.6%)	372 (0.5%)	685 (0.5%)
Effects of foreign body entering through natural orifice	6 (0.0%)	0 (0.0%)	6 (0.0%)
Burns	* (0.0%)	* (0.0%)	14 (0.0%)
Poisoning & toxic effects	* (0.0%)	* (0.0%)	6 (0.0%)
Other & unspecified effects of external causes	8 (0.0%)	22 (0.0%)	30 (0.0%)
Certain early complications of trauma	135 (0.2%)	111 (0.2%)	246 (0.2%)
Total	56,830	69,973	126,805

* Small case counts have been suppressed.

† Persons includes 2 cases for which sex was not reported.

Table 3.31: Principal diagnosis groups for fall injury cases by age, Australia 2004–05

Principal diagnosis	0–4	5–14	15–24	25–44	45–64	65+	All ages
Injuries to the head	4,097	2,421	1,726	2,582	3,143	10,210	24,179
Injuries to the neck	46	224	287	337	270	658	1,822
Injuries to the thorax	12	76	206	585	1,176	3,907	5,962
Injuries to the abdomen, lower back, lumbar spine & pelvis	90	383	431	958	1,181	6,901	9,944
Injuries to the shoulder & upper arm	856	1,984	726	1,055	1,902	6,124	12,647
Injuries to the elbow & forearm	1,373	9,247	1,631	2,226	3,727	6,333	24,537
Injuries to the wrist & hand	72	568	799	1,020	661	1,122	4,242
Injuries to the hip & thigh	279	325	166	406	1,687	20,159	23,022
Injuries to the knee & lower leg	237	1,318	1,641	3,244	4,189	5,790	16,419
Injuries to the ankle & foot	23	167	390	829	755	788	2,952
Injuries involving multiple body regions	*	5	*	9	9	68	92
Injuries to unspecified parts of trunk, limb or body region	22	33	29	77	91	433	685
Effects of foreign body entering through natural orifice	*	*	*	*	*	*	6
Burns	*	*	*	5	*	5	14
Poisoning & toxic effects	*	*	*	*	*	*	6
Other & unspecified effects of external causes	*	*	*	*	*	23	30
Certain early complications of trauma	*	*	16	27	38	152	246
Total	7,110	16,764	8,053	13,365	18,837	62,676	126,805

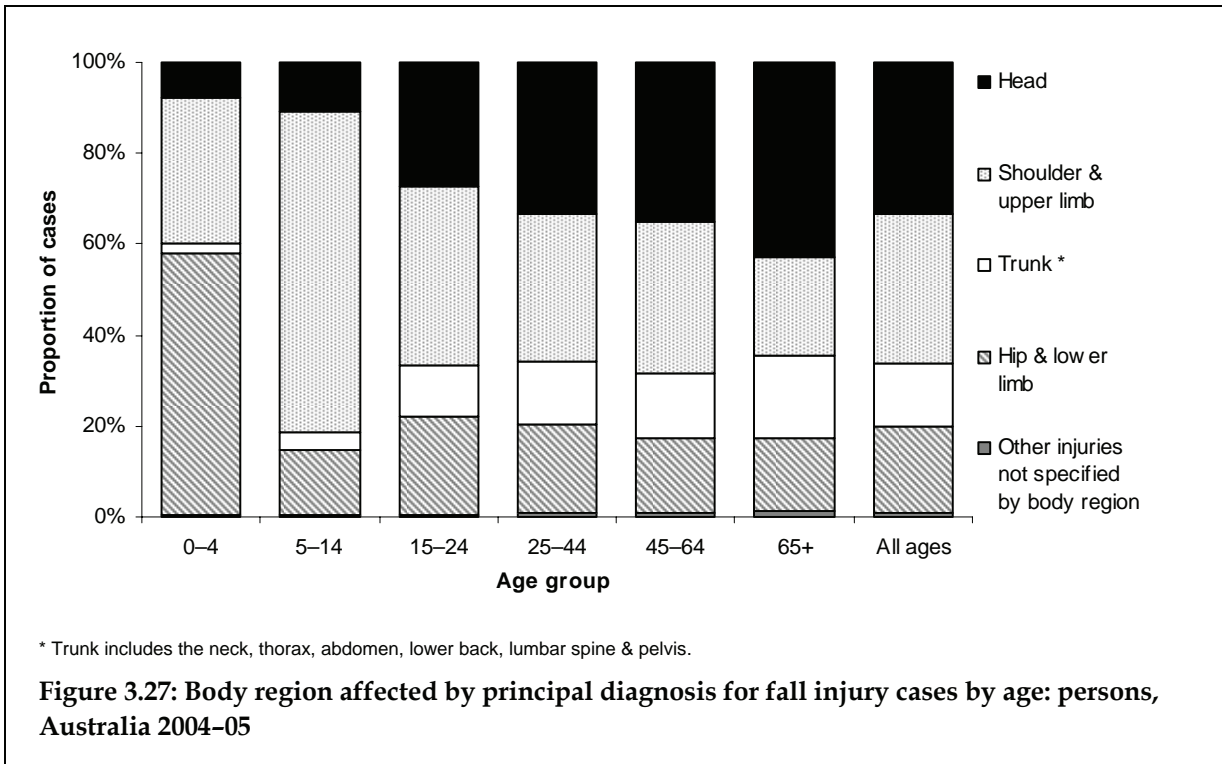
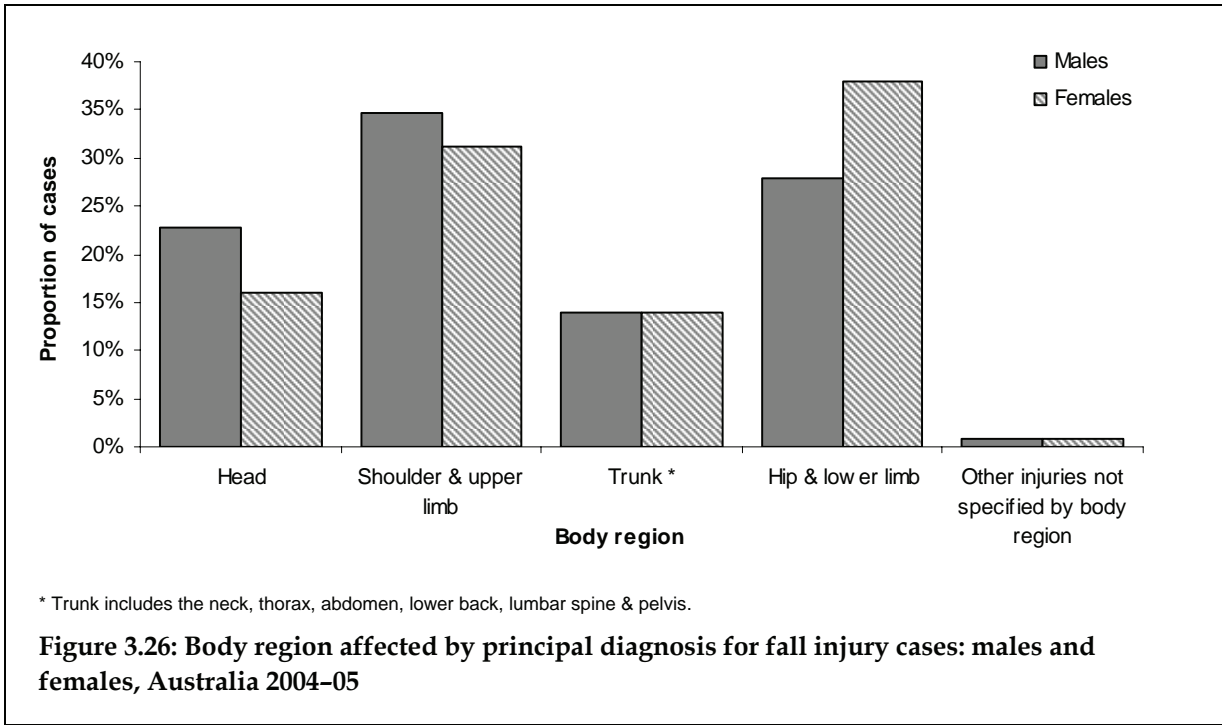
Note: Shading denotes highest category for each age group.

* Small cell counts have been suppressed.

Injuries due to unintentional falls were most frequently fractures in nature, accounting for six in ten hospitalised cases (62.7%, $n = 79,481$). Fracture principal diagnoses were the most common type of injury for both males and females and fractures were common for all age groups, accounting for 41–76% of cases according to age. While still the most common result of a serious fall, the lowest proportion of fractures as principal diagnosis was observed for children 0–4 years of age. At this age, open wounds accounted for a higher proportion of cases (24.0%). This compares to 7–10% for older children and adults. Open wounds were the second most common nature of injury described by the principal diagnoses of hospitalised fall cases in 2004–05.

Falls—body region

The body region injured according to the principal diagnosis of hospitalised fall injury cases in 2004–05 was most frequently the hip and lower limb region (33.4% of cases), although injuries to the shoulder and upper limb region were almost as common (32.7%). Reflecting differences in rates of unintentional falls by age and sex, a higher proportion of cases involving females were injuries to the hip and lower limb region, injuries typical for older ages, than for males (Figure 3.26). Similarly, a higher proportion of cases involving males were injuries to the shoulder and upper limb region, injuries typical for younger ages, than for females (see also Figure 3.27). Injuries to the head were most common for the 0–4 years age group than for other ages and account for a higher proportion of cases involving males. Injuries to the trunk region, as common in females as in males, increased in frequency with age.

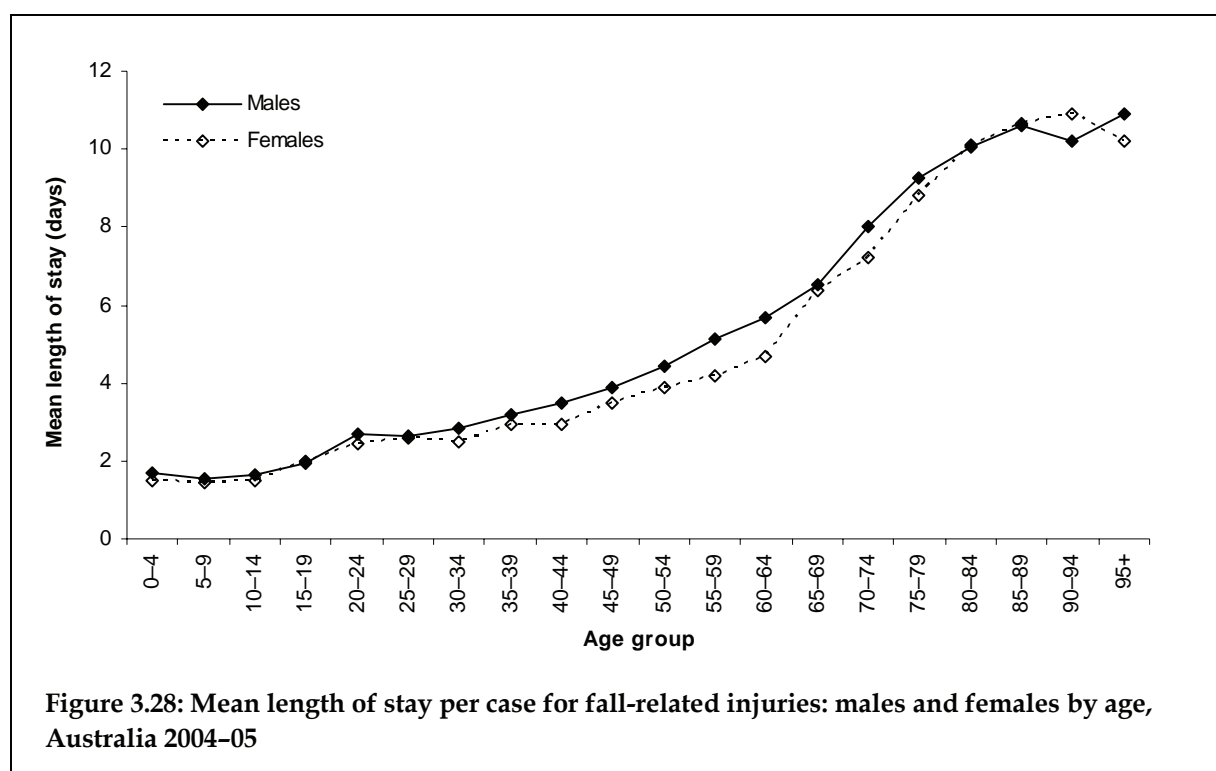


Falls—length of stay

Falls accounted for a third (34.6%) of all community injury cases in 2004–05 but more than half of all patient-days in this period (54.2%, $n = 772,004$). A lower proportion of fall injury separations were discharged on the same day as admitted (24.9%, $n = 34,590$) than was observed for all other types of community injuries. Including these same-day separations, half (48.8%, $n = 67,939$) of all falls separations had a length of stay of one day (again, a lower proportion than observed for all other types of community injury). These results are largely due to the high rate of falls for older Australians, for whom the injuries resulting from falls are frequently severe (e.g. hip fracture) and serious co-morbidities are common.

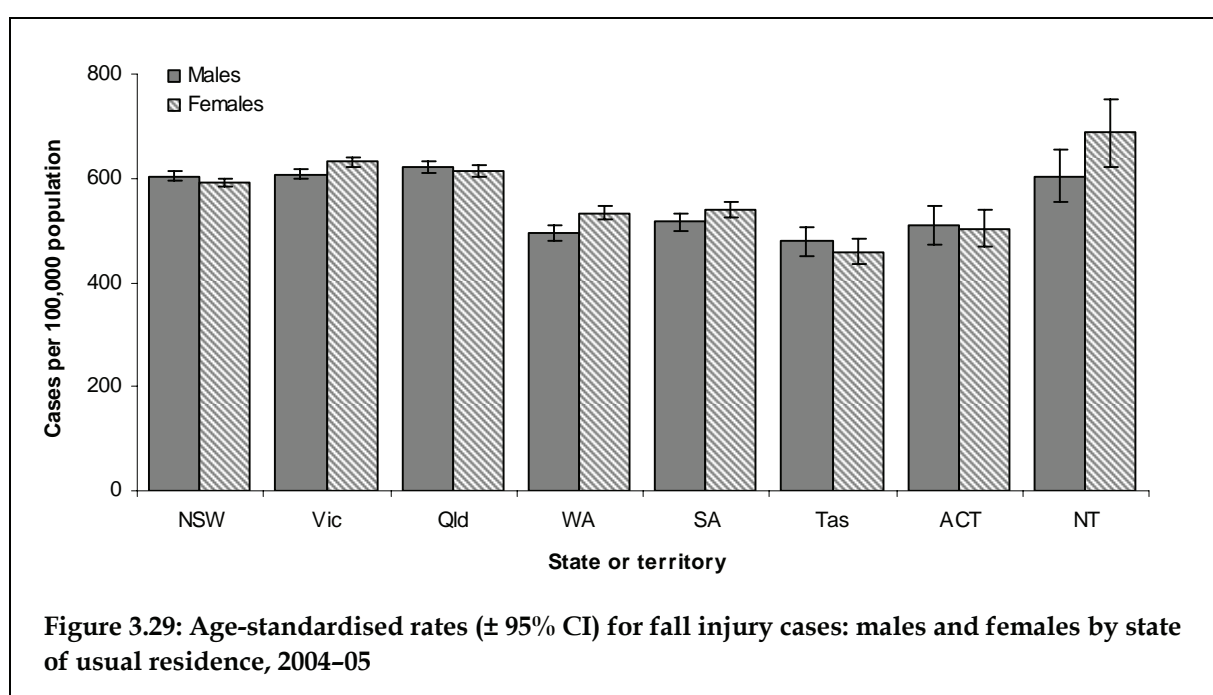
The mean length of stay per case for fall injuries in 2004–05 was 6.1 days. This is likely to be an underestimate of the actual amount of time many people spend in hospital due to falls as this value, while incorporating the patient-days from both case and transfer separations, does not include hospital care coded to principal diagnoses describing rehabilitation procedures and other follow-up care (diagnoses which appear to be particularly common for older people following a fall, Bradley & Harrison 2007).

As can be seen in Figure 3.28, mean lengths of stay per case for hospitalised falls increased markedly with age. While the mean length of stay per case for males was slightly longer than that for females in most age-groups, the mean length of stay per case for males overall (4.9 days) was much shorter than that for females (7.1 days). This is related to the higher proportion of females involved in injurious falls at older ages.



Falls—state of usual residence

The rate of hospitalised fall injury cases did not vary as markedly by the person's state of usual residence as did rates of many other types of community injuries. Residents of the Northern Territory had the highest rate observed (655.8 per 100,000 population), but this was only slightly, and insignificantly, higher than rates of hospitalised fall injuries for residents of New South Wales, Victoria and Queensland. The lowest rate of hospitalised fall injury cases was observed for residents of Tasmania (480.2 per 100,000 population). Rates for males and females showed a similar pattern (Figure 3.29), but the rate of hospitalised falls for males resident in Queensland was marginally higher than that of males resident in the Northern Territory. Age-standardised rates of hospitalised falls for females were significantly higher than those of males in Victoria and Western Australia. In all other jurisdictions, male and female rates were statistically similar.



Falls—remoteness of usual residence

The age-standardised rates of hospitalised fall injury cases for males and females according to the remoteness of the persons' place of usual residence present slightly different distributions (Figure 3.30); rates were relatively low for males resident in Australia's Major cities and Inner regional areas but highest for residents of Outer regional areas, while for females, rates were lowest in Inner regional areas and highest in Very remote Australia. Similarly, for persons overall, residents of Australia's Inner regional areas had the lowest rate of hospitalised falls (580.5 per 100,000, population) while residents of Very remote regions had the highest rate of falls cases (698.6 per 100,000 population).

Figure 3.31 presents age-standardised rates of hospitalised falls by remoteness of usual residence for two age classes; all people under the age of 65 years and people 65 years and older. It can be seen that there is a substantial difference in the pattern of hospitalised falls cases for the two age groups. Age-standardised rates for younger patients demonstrate the familiar increase with each increase in remoteness that is typical for most types of

injury hospitalisations. Rates for older Australians, however, show an overall decrease in rates of hospitalisation with increasing remoteness.

As these are age-standardised rates, this pattern is not simply explained by a larger population of older people congregated near the healthcare facilities and services of urban areas. As suggested in Bradley and Harrison (2007) a number of factors could be influencing the rate of falls hospitalisations for older Australians according to remoteness, including; a ‘survivor effect’ whereby older Australians living in more remote areas may be comparatively more healthy than more urban residents, or a ‘non-survivor effect’ whereby older Australians in remote areas might be less likely to survive a serious fall long enough to be hospitalised.

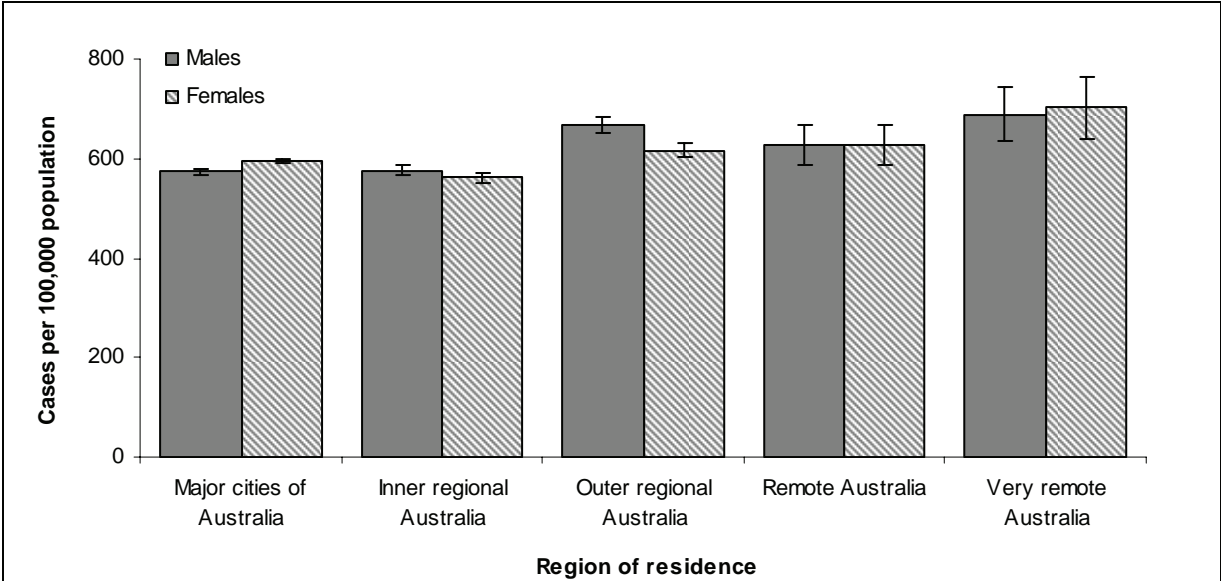


Figure 3.30: Age-standardised rates (\pm 95% CI) for fall injury cases: males and females by remoteness of usual residence (ASGC regions), 2004-05

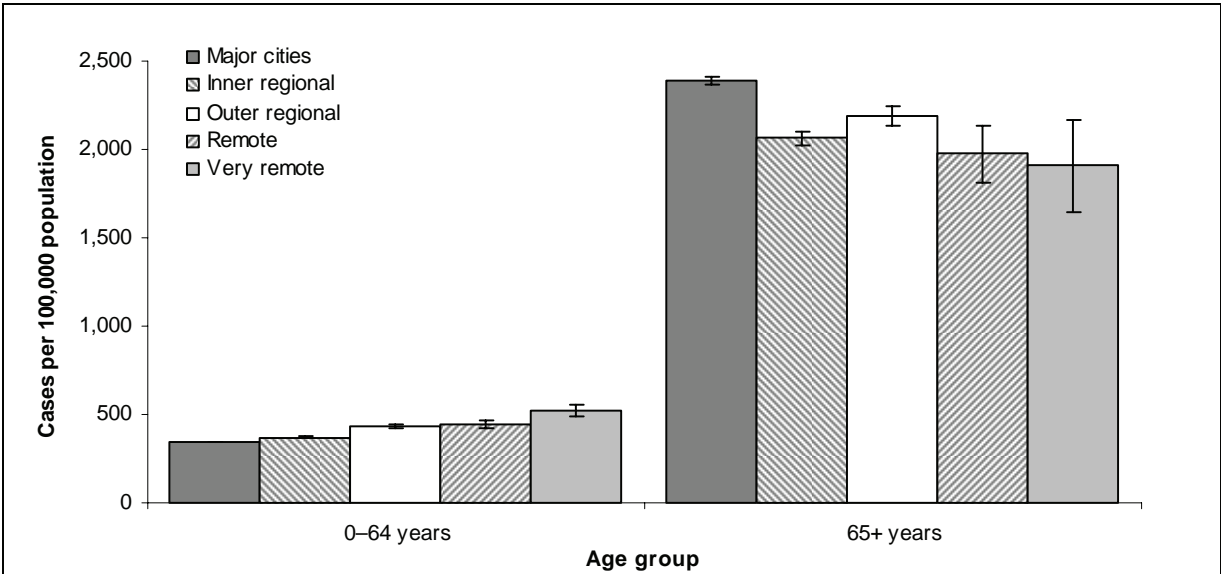


Figure 3.31: Age-standardised rates (\pm 95% CI) for fall injury cases: remoteness of usual residence (ASGC regions) by age group, 2004-05

3.6 Fires, burns and scalds injury cases

ICD-10-AM inclusion criteria:

- Principal diagnosis S00–T75 or T79, and
- First external cause X00–X19, and
- Mode of admission other than ‘transfer from another acute hospital’.

Table 3.32: Key indicators for hospitalised fire, burns and scalds injury: males, females and persons, Australia 2004–05

Key indicators	Males	Females	Persons
Total number of hospital separations due to fire, burns & scalds injury	4,002	2,160	6,162
Fire, burns & scalds separations as proportion of all community injury separations	1.8%	1.3%	1.6%
Estimated number of fire, burns & scalds injury cases ^(a)	3,472	1,930	5,402
Cases per 100,000 population	34.5	19.0	26.7
Cases per 100,000 population—age-standardised ^(b)	34.8	19.4	27.2
Total patient-days due to fire, burns & scalds injury ^(c)	19,179	9,902	29,081
Mean patient-days per case	5.5	5.1	5.4

(a) Excludes records with a mode of admission of ‘transfer from another acute hospital’.

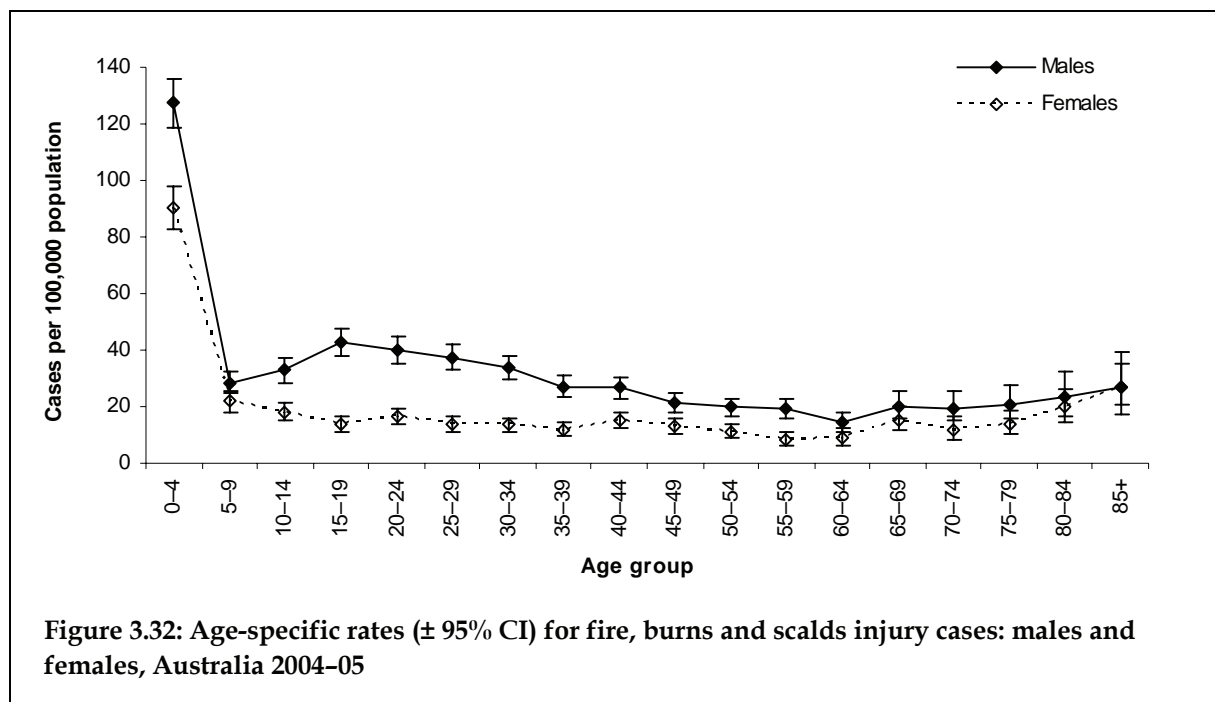
(b) Standardised to the Australian estimated resident population 30th June 2001.

(c) Includes records with a mode of admission of ‘transfer from another acute hospital’ as contributing to hospital burden due to injury.

An estimated 5,402 hospitalised cases in 2004–05 were due to injuries resulting from exposure to smoke, fire and flames or contact with heat and hot substances (Table 3.32). The age-standardised rate of hospitalised burns and scalds cases was 27.2 per 100,000 population.

Fires, burns and scalds—age and sex

Nearly two-thirds of burns and scalds cases in 2004–05 involved males (64.3%, $n = 3,742$). Males had an age-standardised rate of hospitalised burns and scalds of 34.8 per 100,000 population, compared to 19.4 per 100,000 for females. The highest age-specific rates of burns and scalds cases for both males and females were observed for the 0–4 years age group (Figure 3.32). Rates for females then decreased for the 5–9 years age group and remained relatively low until very old age, when slight increases were noted. Rates for males, on the other hand, decreased for those aged 5–9 years but then rose again to remain substantially higher than those for females from late childhood to middle adulthood. From the age of 60 years, the differences in rates between males and females were not significant.



Fires, burns and scalds—external cause

Contact with hot drinks, food, fats and cooking oils was the leading cause of hospitalised burns and scalds in 2004-05, accounting for nearly a quarter of cases (22.9%, $n = 1,236$). This predominance was observed for both males and females, but a higher proportion of cases for females (30.5%, $n = 589$) were due to contact with hot drinks, food, fats and cooking oils than for males (18.6%, $n = 647$). The next most frequent cause of burns and scalds cases was 'contact with other hot fluids' (i.e. not hot drinks or hot tap-water). Again, a higher proportion of cases involving females were assigned this first external cause code (18.7%, $n = 361$) than cases involving males (11.7%, $n = 406$).

The third most common cause of hospitalised burns and scalds was exposure to ignition of highly flammable material, accounting for 12.9% of cases overall ($n = 695$). A higher proportion of cases involving males (17.5%) were coded to this category than cases involving females (4.6%). About a third of these injuries were work-related (working for income and other types of work, $n = 166$), and 64.7% of all cases coded as exposure to ignition of highly flammable material involved people aged 15-44 years ($n = 450$, Table 3.33). Higher proportions of males cases were coded to external causes describing contact with hot heating appliances, radiators and pipes and contact with hot engines, machinery and tools, but these injuries were more common for younger people, aged less than 14 years, so are not likely to be work-related (see also below).

The most common external cause for burns and scalds injuries, contact with hot drinks, food, fats and cooking oils, was the leading cause of hospitalisation for children 0-14 years and older adults aged 65 and older (Table 3.33).

Only ten cases were coded as injuries due to the ignition or melting of nightwear in 2004-05 and half of these cases ($n = 5$) involved adults aged 65 years and older. Only one case with this cause involved a child aged less than five years.

Table 3.33: First external cause for fire, burns and scalds injury cases by age, Australia 2004–05

External cause	0–4	5–14	15–24	25–44	45–64	65+	All ages
Exposure to uncontrolled fire in building or structure (X00)	10	26	28	61	38	31	194
Exposure to uncontrolled fire, not in building or structure (X01)	*	8	6	21	17	*	61
Exposure to controlled fire in building or structure (X02)	11	6	28	46	25	24	140
Exposure to controlled fire, not in building or structure (X03)	59	20	51	71	29	8	238
Exposure to ignition of highly flammable material (X04)	6	115	205	245	88	36	695
Exposure to ignition or melting of nightwear (X05)	*	*	*	*	*	5	10
Exposure to ignition or melting of other clothing & apparel (X06)	6	12	11	26	20	15	90
Exposure to other specified smoke, fire & flames (X08)	22	13	33	51	25	18	162
Exposure to unspecified smoke, fire & flames (X09)	38	39	71	139	73	65	425
Contact with hot drinks, food, fats & cooking oils (X10)	517	192	122	201	120	84	1,236
Contact with hot tap-water (X11)	147	36	19	40	32	46	320
Contact with other hot fluids (X12)	246	95	69	168	123	66	767
Contact with steam & hot vapours (X13)	7	9	51	45	21	9	142
Contact with hot air & gases (X14)	*	*	*	*	*	*	17
Contact with hot household appliances (X15)	143	18	14	28	10	6	219
Contact with hot heating appliances, radiators & pipes (X16)	72	19	17	44	43	40	235
Contact with hot engines, machinery & tools (X17)	18	37	27	25	11	8	126
Contact with other hot metals (X18)	15	*	7	24	13	*	62
Contact with other & unspecified heat & hot substances (X19)	63	42	33	66	34	25	263
Total	1,384	692	797	1,311	726	492	5,402

Note: Shading denotes highest specific category for each age group.

* Small case counts have been suppressed.

Fires, burns and scalds—place and activity

More than half of all hospitalised burns and scalds cases in 2004–05 were reported to have occurred in the home (53.4%, $n = 2,885$). A higher proportion of cases involving females (64.8%) were reported to have occurred in the home than for cases involving males (47.1%, Table 3.34). These observations are consistent with the high number of cases due to contact with hot drinks, food, fats and cooking oils. The second most frequent place of occurrence code assigned to hospitalised burns and scalds was ‘unspecified place of occurrence’ (32.0%, $n = 1,728$) and a higher proportion of cases involving males were assigned this code than for cases involving females. Together, the home and ‘unspecified place of occurrence’ account for more than four in five hospitalised burns and scalds cases (85.4%). Relatively few burns and scalds cases were reported to have occurred in trade and service areas (3.1% in total), industrial and construction areas (2.8%), farms (0.9%) or residential institutions (0.9%).

Table 3.34: Place of occurrence for fire, burns and scalds injury cases: males, females and persons, Australia 2004–05

Place of occurrence	Males	Females	Persons
Home	1,635 (47.1%)	1,250 (64.8%)	2,885 (53.4%)
Residential institution	24 (0.7%)	27 (1.4%)	51 (0.9%)
School	5 (0.1%)	7 (0.4%)	12 (0.2%)
Health service area	* (0.1%)	* (0.5%)	12 (0.2%)
Other specified institution & public administrative area	5 (0.1%)	* (0.1%)	* (0.1%)
Sports & athletics area	* (0.2%)	* (0.1%)	10 (0.2%)
Street & highway	49 (1.4%)	17 (0.9%)	66 (1.2%)
Shop & store	10 (0.3%)	12 (0.6%)	22 (0.4%)
Commercial garage	13 (0.4%)	0 (0.0%)	13 (0.2%)
Cafe, hotel & restaurant	66 (1.9%)	39 (2.0%)	105 (1.9%)
Other & unspecified trade & service area	19 (0.5%)	8 (0.4%)	27 (0.5%)
Industrial & construction area	146 (4.2%)	5 (0.3%)	151 (2.8%)
Farm	* (1.4%)	* (0.2%)	51 (0.9%)
Areas of still water, streams & large areas of water	* (0.5%)	* (0.2%)	23 (0.4%)
Beach	18 (0.5%)	5 (0.3%)	23 (0.4%)
Forest	* (0.3%)	* (0.1%)	14 (0.3%)
Other specified countryside	30 (0.9%)	6 (0.3%)	36 (0.7%)
Other specified place of occurrence	118 (3.4%)	45 (2.3%)	163 (3.0%)
Unspecified place of occurrence	1,245 (35.9%)	483 (25.0%)	1,728 (32.0%)
Place not reported/not applicable	* (0.0%)	* (0.1%)	* (0.1%)
Total	3,472	1,930	5,402

* Small case counts have been suppressed.

Consistent with the high proportion of hospitalised burns and scalds assigned an unspecified place of occurrence code, nearly half of all cases were assigned an unspecified activity code (47.8%, $n = 2,580$). Together, burns and scalds injuries coded to 'other specified' and 'unspecified' activity codes accounted for 69.8% of cases ($n = 3,770$, Table 3.35).

One in five cases were reported to have occurred while the person was resting, eating, sleeping or engaging in other vital activities (11.3%) or while engaged in non-income producing work (9.3%). Contact with hot drinks, food, fats and cooking oils was the most common cause of burns and scalds injuries sustained during these activities and were strongly associated with the home as the place of occurrence.

Less than ten per cent of cases (7.8%, $n = 423$) were reported to have occurred while working for income. For these cases, injuries due to exposure to ignition of highly flammable material and contact with other hot fluids were relatively common. The specific industry type most frequently assigned to burns and scalds occurring while working for income was the wholesale and retail trade industry (15.4%, $n = 65$), although half (49.9%) of working for income cases were coded to 'other' and 'unspecified' work for income codes.

Table 3.35: Activity at time of occurrence by external cause of fire, burns and scalds injury cases, Australia 2004–05

External cause	Sport & leisure activities	Working for income	Other types of work	Resting, sleeping, eating, etc.	Other & unspecified activities	Activity not reported/not applicable
Exposure to uncontrolled fire	*	21	16	62	155	*
Exposure to controlled fire	25	16	43	40	254	0
Exposure to ignition of highly flammable material	*	66	100	14	496	*
Exposure to ignition or melting of nightwear	0	0	0	*	6	*
Exposure to ignition or melting of other clothing & apparel	*	12	10	5	57	*
Exposure to other specified smoke, fire & flames	*	16	7	16	118	*
Exposure to unspecified smoke, fire & flames	*	26	18	30	346	*
Contact with hot drinks, food, fats & cooking oils	*	55	186	197	794	*
Contact with hot tap-water	0	12	8	107	193	0
Contact with other hot fluids	*	67	55	90	548	*
Contact with steam & hot vapours	0	25	15	*	99	*
Contact with hot air & gases	*	5	*	*	8	0
Contact with hot household appliances	*	6	16	6	189	*
Contact with hot heating appliances, radiators & pipes	*	12	9	26	187	*
Contact with hot engines, machinery & tools	12	17	7	0	90	0
Contact with other hot metals	0	28	6	*	27	*
Contact with other & unspecified heat & hot substances	8	39	*	9	203	*
Total	87	423	502	611	3,770	9

Note: Shading denotes most numerous category for each activity group.

* Small case counts have been suppressed.

Fires, burns and scalds—principal diagnosis

Not surprisingly, the principal diagnosis for most hospitalised burns and scalds cases described burns (92.4%, $n = 4,992$). Burns to the wrist and hands, head and neck, trunk, and hip and lower limbs were all common (16.0–18.3% of cases, see Table 3.36). Overall, very similar proportions of cases for both males and females were assigned burns principal diagnoses, but proportionately more males sustained burns to the head and neck (19.4% vs. 13.8% for females) and proportionately more females sustained burns to the trunk (21.0% vs. 13.5% for males).

Six per cent of hospitalised burns and scalds had a principal diagnosis describing toxic effects of substances chiefly non-medicinal as to source ($n = 317$). Most of these cases were coded to T59.8, toxic effect of other specified gases, fumes and vapours (85.8% of toxic effect cases, $n = 272$).

The principal diagnoses assigned to burns and scalds cases did not differ much by age and tabulated data is not provided here. Nonetheless, it is interesting to note that the age-group with the highest proportion of burns diagnoses (98.0%) was the 0–4 years group and this age-group had the lowest proportion of cases assigned a toxic effects of

non-medicinal substances diagnosis (1.6%). Conversely, the lowest proportion of burns diagnoses (83.7%) was observed for the 65 years and older group and people of this age had the highest proportion of cases assigned a toxic effects of non-medicinal substances diagnosis (13.0%).

Table 3.36: Principal diagnosis for fire, burns and scalds injury cases: males, females and persons, Australia 2004–05

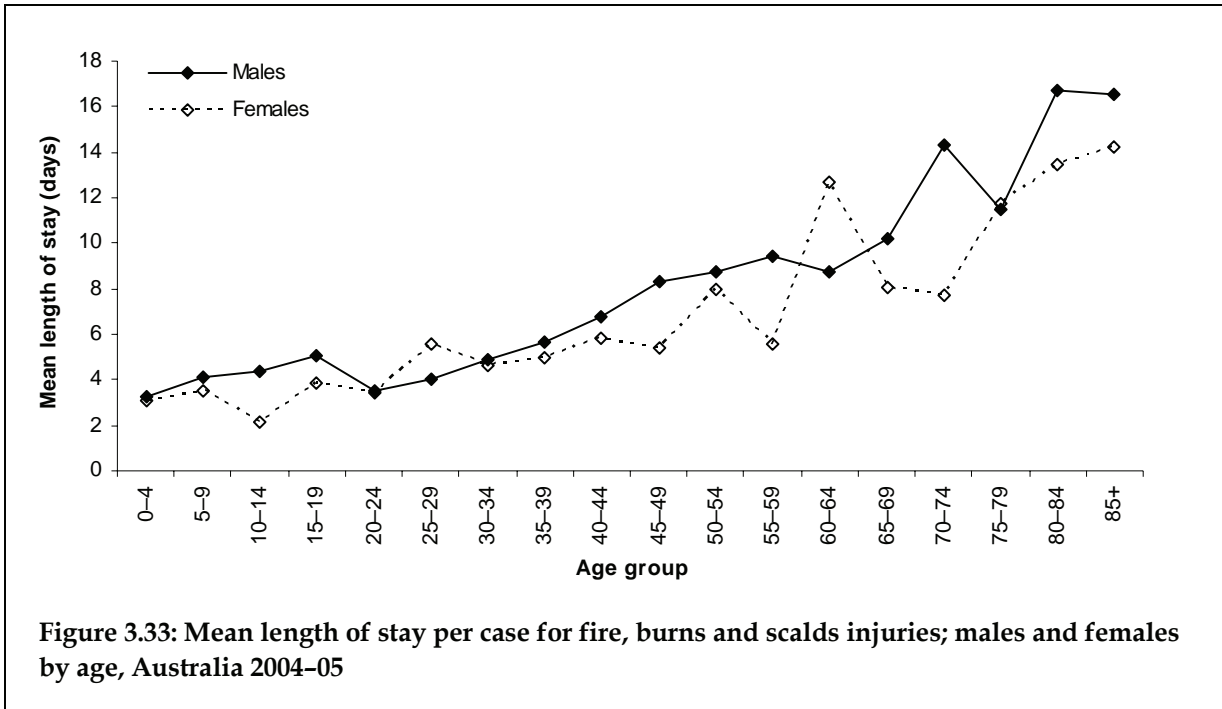
Principal diagnosis	Males	Females	Persons
Injuries S00–T19	38 (1.1%)	14 (0.7%)	52 (1.0%)
Burn of head & neck (T20)	675 (19.4%)	267 (13.8%)	942 (17.4%)
Burn of trunk (T21)	470 (13.5%)	406 (21.0%)	876 (16.2%)
Burn of shoulder & upper limb, except wrist & hand (T22)	430 (12.4%)	223 (11.6%)	653 (12.1%)
Burn of wrist & hand (T23)	651 (18.8%)	339 (17.6%)	990 (18.3%)
Burn of hip & lower limb, except ankle & foot (T24)	535 (15.4%)	329 (17.0%)	864 (16.0%)
Burn of ankle & foot (T25)	385 (11.1%)	190 (9.8%)	575 (10.6%)
Burn of eye & adnexa (T26)	31 (0.9%)	7 (0.4%)	38 (0.7%)
Burn of respiratory tract (T27)	* (0.2%)	* (0.2%)	11 (0.2%)
Burn of other internal organs (T28)	* (0.3%)	* (0.1%)	13 (0.2%)
Burns of multiple body regions (T29)	15 (0.4%)	9 (0.5%)	24 (0.4%)
Burn, body region unspecified (T30)	* (0.0%)	* (0.1%)	* (0.0%)
Burns classified according to extent of body surface involved (T31)	* (0.0%)	* (0.2%)	* (0.1%)
<i>Total burns</i>	<i>3,213 (92.5%)</i>	<i>1,779 (92.2%)</i>	<i>4,992 (92.4%)</i>
Toxic effects of non-medical substances	194 (5.6%)	123 (6.4%)	317 (5.9%)
Other injury diagnoses (T36–T50, T66–T75, T79)	27 (0.8%)	14 (0.7%)	41 (0.8%)
Total	3,472	1,930	5,402

* Small case counts have been suppressed.

Fires, burns and scalds—length of stay

The total number of patient-days attributed to hospitalised cases of burns and scalds injuries in 2004–05 was 29,081 (2.0% of all patient-days due to community injuries). Including same-day separations, more than half of all burns and scalds separations reported a length of stay of one day (58.8%, $n = 3,626$). Conversely, a small proportion of burns and scalds cases had long lengths of stay, in excess of 100 days (0.2%, $n = 10$). The mean length of stay per case for hospitalised burns and scalds was 5.4 days and this was similar for both male cases (5.5 days) and female cases (5.1 days).

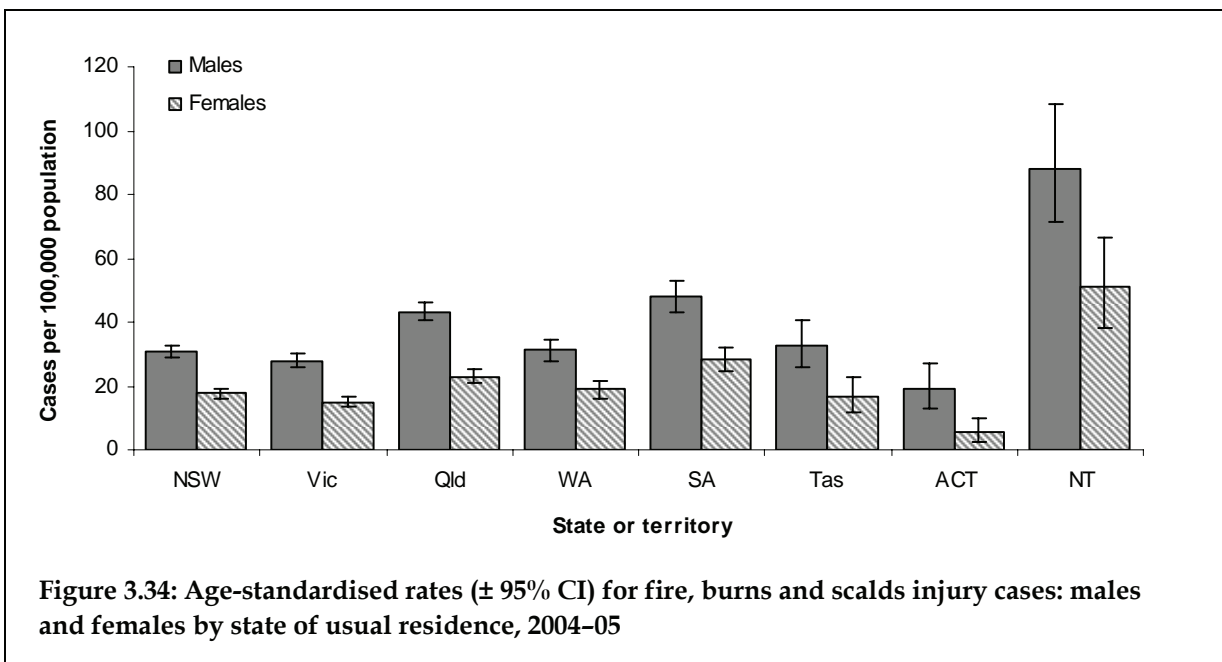
As can be seen in Figure 3.33, mean lengths of stay per case for hospitalised burns and scalds increased markedly with age and mean lengths of stay for males were frequently longer than those for females. Mean length of stay for cases involving children 0–4 years, the age group most commonly admitted to hospital due to burns and scalds, was 3.2 days while the mean length of stay for people 85 years of age and older was 15.0 days.



Fires, burns and scalds—state of usual residence

Age-standardised rates of hospitalised burns and scalds cases were much higher for residents of the Northern Territory, 69.4 per 100,000 population, than for residents of all other jurisdictions of Australia. This was true for both male and female rates and these demonstrated the same pattern of differences between the states (Figure 3.34). Despite the wide confidence intervals provoked by relatively small numbers of cases ($n > 100$), the rate of burns and scalds for both males and females resident in the Northern Territory were significantly higher than those for all other jurisdictions.

In each jurisdiction, including the Northern Territory, the age-standardised rate of burns and scalds cases for males was significantly higher than that for females.

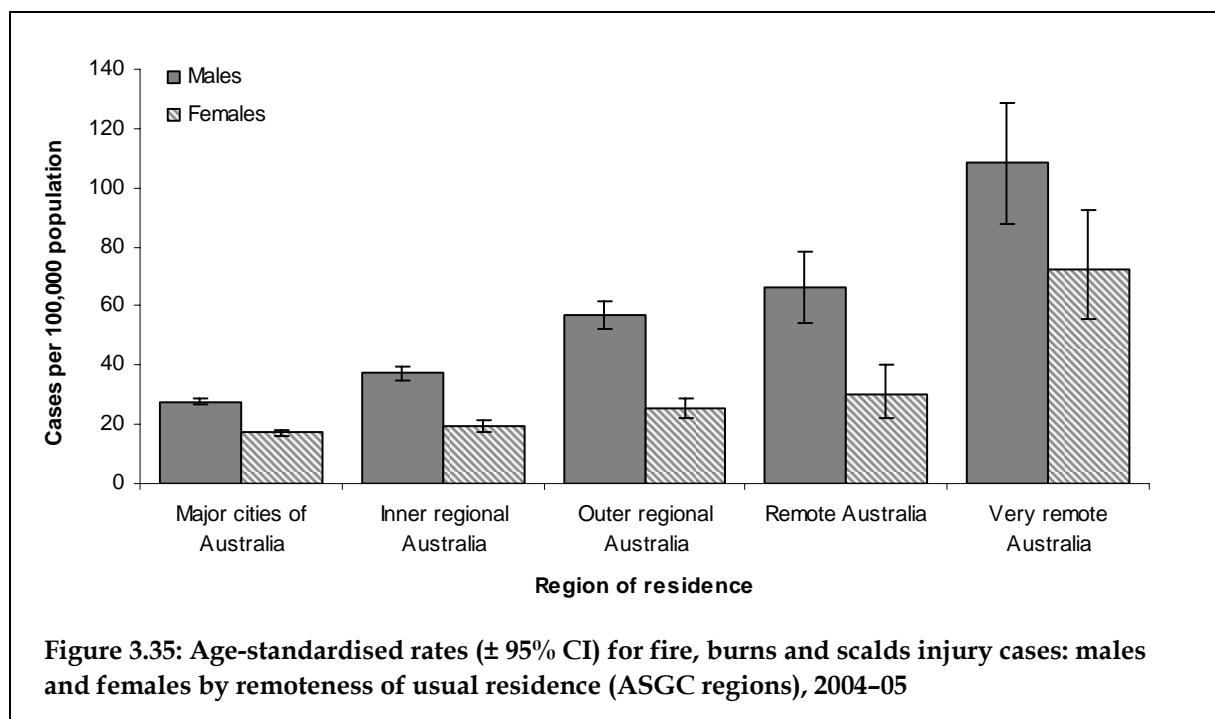


Fires, burns and scalds—remoteness of usual residence

The rate of hospitalised burns and scalds injury cases increased markedly with increases in the remoteness of the person's place of usual residence. People resident in Australia's Major cities had the lowest rate of hospitalised burns and scalds in 2004–05 (22.5 per 100,000 population) while residents of Australia's Very remote regions had the highest age-standardised rate of burns and scalds cases (91.0 per 100,000). This rate was significantly higher than that for all other regions and the nation as a whole.

Similar increases in rates of burn and scald cases were observed for both males and females (Figure 3.35). The higher rate of burns and scalds for residents of Very remote regions was particularly distinct for cases involving females, for whom rates jumped from 30.2 cases per 100,000 for residents of Remote areas to 72.5 per 100,000 for residents of Very remote areas.

The high rate of burns and scalds injuries noted previously for residents of the Northern Territory are most likely related to these findings, similarly high rates of burns and scalds have been previously noted for Indigenous Australians (see also Helps & Harrison 2004; Helps & Harrison 2006).



3.7 Other unintentional injury cases

ICD-10-AM inclusion criteria:

- Principal diagnosis S00–T75 or T79, and
- First external cause W20–W64, W75–W99, X20–X39, X50–X59, Y85, Y86 or Y89.9, and
- Mode of admission other than ‘transfer from another acute hospital’.

Table 3.37: Key indicators for hospitalised other unintentional injury: males, females and persons, Australia 2004–05

Key indicators	Males	Females	Persons ^(a)
Total number of hospital separations due to other unintentional injury	85,396	34,271	119,668
Other unintentional separations as proportion of all community injury separations	38.2%	21.4%	31.2%
Estimated number of other unintentional injury cases ^(b)	80,618	32,491	113,110
Cases per 100,000 population	802.2	319.8	559.7
Cases per 100,000 population—age-standardised ^(c)	800.9	315.9	561.1
Total patient-days due to other unintentional injury ^{(d), (e)}	154,698	86,862	241,566
Mean patient-days per case	1.9	2.7	2.1

(a) Includes 1 separation for which sex was not reported.

(b) Excludes records with a mode of admission of ‘transfer from another acute hospital’.

(c) Standardised to the Australian estimated resident population 30th June 2001.

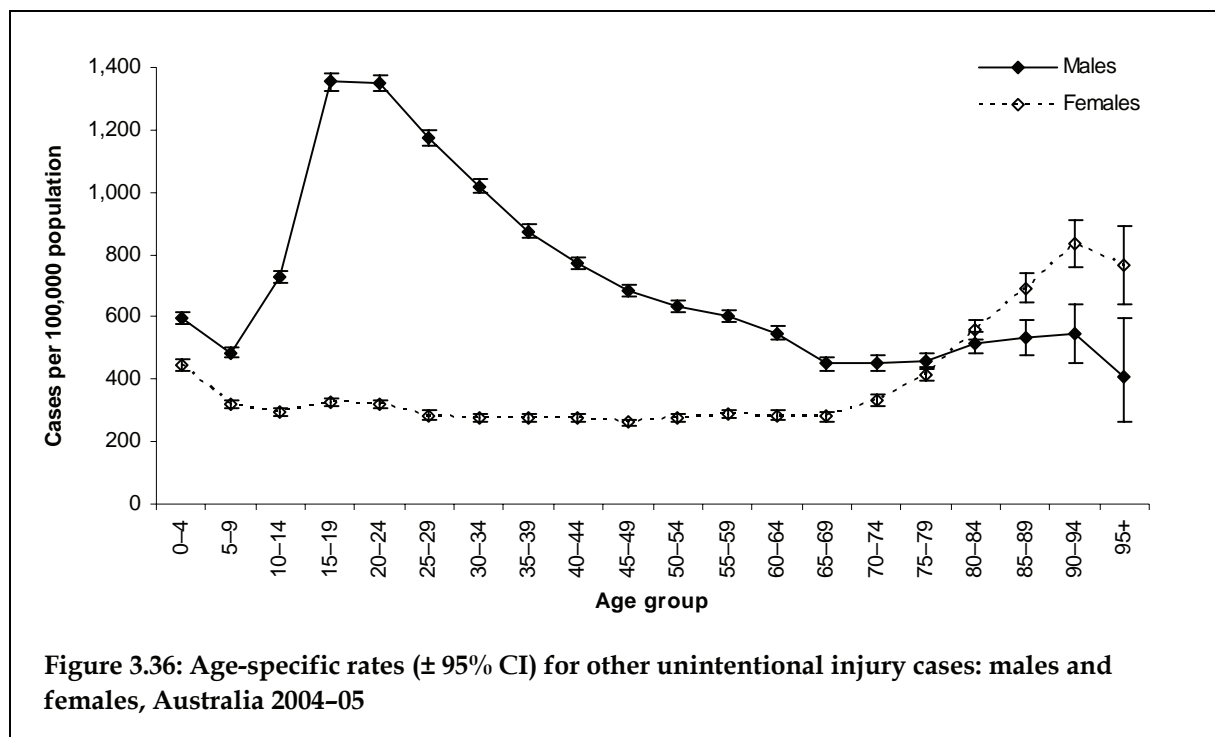
(d) Includes records with a mode of admission of ‘transfer from another acute hospital’ as contributing to hospital burden due to injury.

(e) Includes 6 days of patient care for which sex was not reported.

The remaining 113,110 hospitalised community injury cases in 2004–05 were the result of a variety of causes, including; exposure to mechanical forces (e.g. struck by object or unintentional contact with another person), accidental threats to breathing other than drowning and submersion, and contact with venomous animals and plants. The age-standardised rate of these other unintentional hospitalised injury was 561.1 per 100,000 population in this year (Table 3.37).

Other unintentional—age and sex

Males accounted for nearly three-quarters of all other unintentional hospitalised injury cases in 2004–05 (71.3%, $n = 80,618$). Accordingly, the age-standardised rate of these types of injuries was considerably higher for males (800.9 per 100,000 population) than for females (315.9 per 100,000). Age-specific rates of other unintentional injury cases were also quite different for males and females (Figure 3.36). Rates were highest for males aged 15–24 years and, from this peak, declined relatively steadily with increasing age. Conversely, rates for females were quite low for all age groups until the age of 75 years. Rates then increased with age, and were significantly higher than those of males for females aged 85 years and older.



Other unintentional—external cause

Nearly half of all other unintentional hospitalised injury cases (46.4%, $n = 52,532$) were due to exposure to inanimate mechanical forces (e.g. being stuck by objects, injured in explosions or contact with tools and machines). A larger proportion of cases involving males were assigned first external causes of this type (49.3%) than cases involving females (39.4%, Table 3.38). This was also the most common external cause category for all age groups other than the very old, for whom injuries due to exposure to other and unspecified factors became more frequent (Figure 3.37). Age-specific rates of injuries due to exposure to inanimate mechanical forces were highest for young adults 15-29 years.

Of this large group of hospitalised injuries, the *specific* external cause most frequently assigned to cases due to exposure to inanimate mechanical forces was W22, striking against or struck by other objects (13.1%, $n = 6,862$). The next most common external causes for cases classed as exposure to inanimate mechanical forces were W44, foreign body entering into or through eye or natural orifice (11.6%, $n = 6,102$) and W25, contact with sharp glass (10.3%, $n = 5,433$). Contact with other and unspecified machinery (W31) was also a particularly frequent first external cause for cases involving males (10.7% of male cases due to exposure to inanimate mechanical forces, $n = 4,269$).

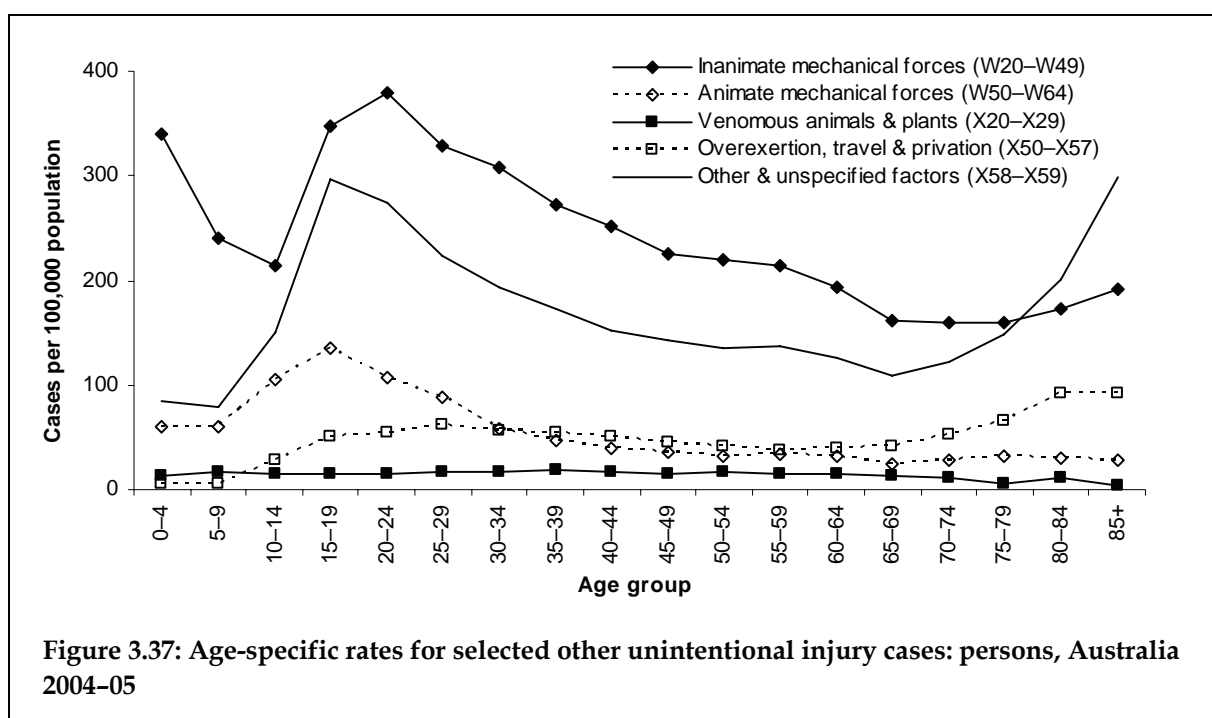
The second most common group of external causes for cases coded as other unintentional hospitalised injuries was accidental exposure to other and unspecified factors (29.9%, $n = 33,766$). A slightly higher proportion of cases involving females were described as accidental exposure to other and unspecified factors (33.1%) than cases involving males (28.5%), likely related to the increase in rates of injuries of this type with age. The other and unspecified factors group contains only two codes, X58 (other) and X59 (unspecified), and the majority of cases for both males and females had X59 as the first external cause (persons: 94.7%, $n = 31,991$). Rates of injuries resulting from accidental exposure to other and unspecified factors were highest for people aged 15-24 years, with a second peak noted for people aged 85 years and older (Figure 3.37).

The third most common type of external cause for cases coded as other unintentional hospitalised injuries were those describing exposure to animate mechanical forces (W50–W64). One in ten other unintentional injury cases in 2004–05 were assigned such external cause codes (10.7%, $n = 12,145$). Most frequently, such cases were specifically attributed to being hit, struck, kicked, twisted, bitten or scratched by another person (W50; 28.7%, $n = 3,480$). A further 23.9% of cases had a first external cause of W51, striking against or bumped into by another person. Both of these external cause codes were more frequent for cases involving males than for cases involving females. Rates of hospitalised injuries due to exposure to animate mechanical forces were highest for young people 15–19 years (Figure 3.37), and is likely to be related to rates of sporting injuries at this age (discussed further below).

Table 3.38: External cause groups for other unintentional injury cases: males, females and persons, Australia 2004–05

External cause	Males	Females	Persons *
Exposure to inanimate mechanical forces (W20–W49)	39,730 (49.3%)	12,802 (39.4%)	52,532 (46.4%)
Exposure to animate mechanical forces (W50–W64)	8,744 (10.8%)	3,400 (10.5%)	12,145 (10.7%)
Other accidental threats to breathing (W75–W84)	426 (0.5%)	339 (1.0%)	765 (0.7%)
Exposure to electric current, radiation & extreme ambient air temperature & pressure (W85–W99)	752 (0.9%)	247 (0.8%)	999 (0.9%)
Contact with venomous animals & plants (X20–X29)	1,928 (2.4%)	1,150 (3.5%)	3,078 (2.7%)
Exposure to forces of nature (X30–X39)	407 (0.5%)	264 (0.8%)	671 (0.6%)
Overexertion, travel & privation (X50–X57)	5,469 (6.8%)	3,432 (10.6%)	8,901 (7.9%)
Accidental exposure to other & unspecified factors (X58–X59)	23,001 (28.5%)	10,765 (33.1%)	33,766 (29.9%)
Sequelae of external causes (Y85, Y86, Y89.9)	161 (0.2%)	92 (0.3%)	253 (0.2%)
Total	80,618	32,491	113,110

* Persons includes 1 case for which sex was not reported.



Other unintentional—place and activity

More than half of all hospitalised cases in the other unintentional injury group had an unspecified place of occurrence recorded (58.9%, $n = 66,644$). Nevertheless, and as for many other types of hospitalised community injury, the home was the most frequent *specified* place of occurrence; 15.9% ($n = 17,947$) of other unintentional injury cases were reported to have occurred in the home. The home was the most frequently specified place of occurrence for many types of other unintentional injury cases, including exposure to inanimate mechanical forces, accidental threats to breathing and contact with venomous plants and animals (Table 3.39). A much higher proportion of female other unintentional injury cases occurred in the home (and driveway; 22.1%) than for male cases (13.4%, see Table 3.40).

Sports grounds and facilities were also a relatively common place of occurrence, accounting for 9.4% ($n = 10,677$) of other unintentional injury cases in 2004–05. Sports facilities were the most common place of occurrence for injuries attributed to exposure to animate mechanical forces, over-exertion, travel and privation and exposure to other and unspecified factors. Sports facilities were a proportionately more common place of occurrence for males (10.8% of male cases) than for females (6.1%).

Table 3.39: Place of occurrence for other unintentional injury cases by external cause groups, Australia 2004–05

Place of occurrence	Inanimate mechanical forces (W20–W49)	Animate mechanical forces (W50–W64)	Accidental threats to breathing (W75–W84)	Electric current, radiation etc. (W85–W99)	Venomous animals & plants (X20–X29)	Forces of nature (X30–X39)	Over-exertion, travel & privation (X50–X57)	Other & unspecified factors (X58–X59)	Sequelae (Y85, Y86, Y89.9)	Total
Home	11,645	1,562	345	181	775	176	1,843	1,386	34	17,947
Residential institution	333	53	65	7	6	20	126	346	*	959
School	943	466	9	7	34	*	162	227	0	1,852
Health service area	204	*	32	11	5	*	101	137	5	515
Other specified institution & public administrative area	83	19	*	*	8	*	31	23	0	170
Sports & athletics area	1,641	3,390	*	*	12	34	2,113	3,475	5	10,677
Street & highway	374	117	8	10	33	55	118	120	32	867
Trade & service area	1,920	150	21	42	23	15	254	204	5	2,634
Industrial & construction area	3,978	26	*	98	25	30	218	243	*	4,624
Farm	880	477	*	10	76	19	57	56	*	1,578
Other specified place of occurrence	2,141	501	13	458	425	126	395	519	10	4,588
Unspecified place of occurrence	28,368	5,363	264	170	1,651	185	3,477	27,013	153	66,644
Place not reported/not applicable	22	*	0	0	5	*	6	17	0	55
Total	52,532	12,145	765	999	3,078	671	8,901	33,766	253	113,110

Note: Shading denotes most common specific category for each external cause group.

* Small case counts have been suppressed.

Table 3.40: Place of occurrence for other unintentional injury cases: males, females and persons, Australia 2004–05

Place of occurrence	Males	Females	Persons
Home	10,767 (13.4%)	7,178 (22.1%)	17,945 (15.9%)
Prison	125 (0.2%)	9 (0.0%)	134 (0.1%)
Aged care facilities	179 (0.2%)	523 (1.6%)	702 (0.6%)
Other & unspecified residential institution	84 (0.1%)	39 (0.1%)	123 (0.1%)
School	1,306 (1.6%)	546 (1.7%)	1,852 (1.6%)
Health Service area	221 (0.3%)	294 (0.9%)	515 (0.5%)
Other specified institution & public administrative area	102 (0.1%)	68 (0.2%)	170 (0.2%)
Sporting grounds (outdoor)	6,592 (8.2%)	985 (3.0%)	7,577 (6.7%)
Sporting hall (indoor)	834 (1.0%)	352 (1.1%)	1,186 (1.0%)
Swimming centre	43 (0.1%)	36 (0.1%)	79 (0.1%)
Racetrack & racecourse	71 (0.1%)	21 (0.1%)	92 (0.1%)
Skating rink	39 (0.0%)	12 (0.0%)	51 (0.0%)
Skiing	166 (0.2%)	132 (0.4%)	298 (0.3%)
Other & unspecified sports & athletic areas	938 (1.2%)	456 (1.4%)	1,394 (1.2%)
Roadway	335 (0.4%)	132 (0.4%)	467 (0.4%)
Sidewalk	215 (0.3%)	126 (0.4%)	341 (0.3%)
Other & unspecified public highway, street or road	36 (0.0%)	23 (0.1%)	59 (0.1%)
Shop & store	534 (0.7%)	280 (0.9%)	814 (0.7%)
Commercial garage	155 (0.2%)	6 (0.0%)	161 (0.1%)
Office building	33 (0.0%)	10 (0.0%)	43 (0.0%)
Cafe, hotel & restaurant	648 (0.8%)	301 (0.9%)	949 (0.8%)
Other & unspecified trade & service area	558 (0.7%)	108 (0.3%)	666 (0.6%)
Construction area	673 (0.8%)	21 (0.1%)	694 (0.6%)
Factory & plant	1,920 (2.4%)	141 (0.4%)	2,061 (1.8%)
Mine & quarry	401 (0.5%)	10 (0.0%)	411 (0.4%)
Other & unspecified industrial & construction area	1,386 (1.7%)	71 (0.2%)	1,457 (1.3%)
Farm	1,326 (1.6%)	252 (0.8%)	1,578 (1.4%)
Area of still water	78 (0.1%)	29 (0.1%)	107 (0.1%)
Stream of water	185 (0.2%)	47 (0.1%)	232 (0.2%)
Large area of water	905 (1.1%)	201 (0.6%)	1,106 (1.0%)
Beach	488 (0.6%)	173 (0.5%)	661 (0.6%)
Forest	97 (0.1%)	30 (0.1%)	127 (0.1%)
Other specified countryside	174 (0.2%)	85 (0.3%)	259 (0.2%)
Other specified place of occurrence	1,573 (2.0%)	521 (1.6%)	2,094 (1.9%)
Unspecified place of occurrence	47,386 (58.8%)	19,257 (59.3%)	66,644 (58.9%)
Place not reported/not applicable	45 (0.1%)	16 (0.0%)	61 (0.1%)
Total	80,618	32,491	113,110

* Persons includes 1 case for which sex was not reported.

Half of all hospitalised other unintentional injury cases had ‘unspecified activity’ recorded as the activity being undertaken at the time of the injury (50.0%, $n = 56,547$), which is not surprising given the large number of such cases with an unspecified place of occurrence.

The most common *specified* activity reported for other unintentional injury cases was ‘while engaged in sporting activities’ (14.9%, $n = 16,681$), which again is not surprising given the proportion of cases reported to have occurred in sports and athletics areas. Sports activities were the most commonly specified activity at the time of injury for most of the different types of other unintentional injuries (Table 3.41).

The number of cases for which sports were the specified activity was larger than the number of cases reported to have taken place in sporting venues, which is most likely due to some sporting activities, such as cycling, rock-climbing and swimming, being undertaken in places such as roads, countryside and beaches. As for place of occurrence, a higher proportion of cases involving males were attributed to sporting activities (16.9%) than for cases involving females (9.9%).

The second most common specified activity reported for other unintentional injuries was while working for income (13.6%, $n = 15,353$). Working for income was the most frequent activity engaged in when injuries attributed to exposure to inanimate mechanical forces were sustained (Table 3.41). Again, a much higher proportion of cases involving males were injured while working for income (17.1%) than cases involving females (4.9%).

Table 3.41: Activity at time of occurrence for other unintentional injury cases by external cause groups, Australia 2004–05

Activity	Inanimate mechanical forces (W20–W49)	Animate mechanical forces (W50–W64)	Accidental threats to breathing (W75–W84)	Electric current, radiation etc. (W85–W99)	Venomous animals & plants (X20–X29)	Forces of nature (X30–X39)	Overexertion, travel & privation (X50–X57)	Other & unspecified factors (X58–X59)	Sequelae (Y85, Y86, Y89.9)	Total
While engaged in sports	3,201	4,572	5	360	142	103	3,032	5,446	0	16,861
While engaged in leisure	663	278	*	5	70	*	170	113	*	1,323
While working for income	10,695	571	8	309	196	72	1,038	2,459	5	15,353
While engaged in other types of work	4,762	275	*	62	216	36	558	138	*	6,051
While resting, sleeping, eating, etc.	3,020	104	438	16	107	32	539	276	0	4,532
Other specified activity	7,646	1,501	82	91	371	97	1,485	830	7	12,110
Unspecified activity	22,507	4,833	225	156	1,967	309	2,067	24,455	28	56,547
Activity not reported/not applicable	38	11	*	0	9	*	12	49	212	333
Total	52,532	12,145	765	999	3,078	671	8,901	33,766	253	113,110

Note: Shading denotes most common specific category for each external cause group.

* Small case counts have been suppressed.

Other unintentional—principal diagnosis

The most common principal diagnoses for other unintentional hospitalised injury cases described injuries to the wrist and hand (32.9%, $n = 37,182$). These were the most common types of injuries for both males and females, but a higher proportion of cases involving males were assigned principal diagnosis of injuries to the wrist and hand (36.8%) than cases involving females (23.1%, Table 3.42). Injuries to the wrist and hand were also the most frequent type of principal diagnosis for all age groups other than very young children.

Injuries to the knee and lower leg were the second most common injury to result from a case attributed to other unintentional external causes (15.4%, $n = 17,400$) and such injuries were proportionately more common for females (16.9%) than for males (14.8%). Injuries to the head accounted for 13.4% of cases attributed to other unintentional external causes and head injuries were the most common result for cases involving young children aged 0–4 years.

While injuries to the hip and thigh represented a relatively small proportion of all other unintentional hospitalised injury cases (3.4%, $n = 3,845$), such injuries accounted for a substantial proportion of cases involving people aged 65 years and older (15.6% of cases 65+ years, compared to 1–3% of cases for younger ages).

Table 3.42: Principal diagnosis groups for other unintentional injury cases: males, females and persons, Australia 2004–05

Principal diagnosis	Males	Females	Persons *
Injuries to the head	11,153 (13.8%)	4,008 (12.3%)	15,161 (13.4%)
Injuries to the neck	709 (0.9%)	291 (0.9%)	1,000 (0.9%)
Injuries to the thorax	1,073 (1.3%)	567 (1.7%)	1,640 (1.4%)
Injuries to the abdomen, lower back, lumbar spine & pelvis	2,439 (3.0%)	1,441 (4.4%)	3,880 (3.4%)
Injuries to the shoulder & upper arm	3,726 (4.6%)	1,178 (3.6%)	4,904 (4.3%)
Injuries to the elbow & forearm	4,850 (6.0%)	2,391 (7.4%)	7,241 (6.4%)
Injuries to the wrist & hand	29,660 (36.8%)	7,521 (23.1%)	37,182 (32.9%)
Injuries to the hip & thigh	1,958 (2.4%)	1,887 (5.8%)	3,845 (3.4%)
Injuries to the knee & lower leg	11,894 (14.8%)	5,506 (16.9%)	17,400 (15.4%)
Injuries to the ankle & foot	4,804 (6.0%)	2,789 (8.6%)	7,593 (6.7%)
Injuries involving multiple body regions	47 (0.1%)	19 (0.1%)	66 (0.1%)
Injuries to unspecified parts of trunk, limb or body region	557 (0.7%)	308 (0.9%)	865 (0.8%)
Effects of foreign body entering through natural orifice	3,947 (4.9%)	2,650 (8.2%)	6,597 (5.8%)
Burns	431 (0.5%)	109 (0.3%)	540 (0.5%)
Frostbite	24 (0.0%)	11 (0.0%)	35 (0.0%)
Poisoning by drugs, medicaments & biological substances	11 (0.0%)	5 (0.0%)	16 (0.0%)
Toxic effects of non-medical substances	1,888 (2.3%)	1,132 (3.5%)	3,020 (2.7%)
Other & unspecified effects of external causes	1,035 (1.3%)	522 (1.6%)	1,557 (1.4%)
Certain early complications of trauma	412 (0.5%)	156 (0.5%)	568 (0.5%)
Total	80,618	32,491	113,110

* Persons includes 1 case for which sex was not reported.

The nature of the injury described by the principal diagnosis of other unintentional injury cases in 2004–05 was highly variable (Table 3.43). Most commonly, other unintentional injury principal diagnoses described a fracture (28.2%, $n = 31,935$). Injuries due to accidental exposure to other and unspecified external causes or exposure to animate mechanical forces were commonly fractures, accounting for 45.1% and 37.0% of cases in these groups, respectively.

The most common group of other unintentional injury cases, exposure to inanimate mechanical forces, most frequently resulted in open wounds. Injuries that were open wounds in nature accounted for 30.1% of all cases due to exposure to inanimate mechanical forces ($n = 15,825$). Overall, open wounds were the second most common type of other unintentional injury case for both males and females.

Table 3.43: Nature of injury diagnosis for other unintentional injury cases: males, females and persons, Australia 2004–05

Nature of injury	Males	Females	Persons *
Superficial (excluding eye)	3,067 (3.8%)	1,904 (5.9%)	4,971 (4.4%)
Open wound (excluding eye)	16,306 (20.2%)	6,410 (19.7%)	22,716 (20.1%)
Fracture (excluding tooth)	23,302 (28.9%)	8,633 (26.6%)	31,935 (28.2%)
Dislocation	4,371 (5.4%)	1,992 (6.1%)	6,363 (5.6%)
Sprain/strain	3,868 (4.8%)	1,949 (6.0%)	5,817 (5.1%)
Nerve (including spinal cord; excluding brain)	2,350 (2.9%)	891 (2.7%)	3,241 (2.9%)
Blood vessel	879 (1.1%)	267 (0.8%)	1,146 (1.0%)
Muscle/tendon	8,906 (11.1%)	2,526 (7.8%)	11,433 (10.1%)
Crush injury	741 (0.9%)	160 (0.5%)	901 (0.8%)
Amputation (including partial)	2,887 (3.6%)	581 (1.8%)	3,468 (3.1%)
Internal organ	573 (0.7%)	165 (0.5%)	738 (0.7%)
Burn/corrosion (excluding eye)	416 (0.5%)	106 (0.3%)	522 (0.5%)
Eye injury (excluding foreign body in external eye)	989 (1.2%)	236 (0.7%)	1,225 (1.1%)
Foreign body: external eye	638 (0.8%)	146 (0.4%)	784 (0.7%)
Foreign body: ear canal	506 (0.6%)	424 (1.3%)	930 (0.8%)
Foreign body: nose	239 (0.3%)	222 (0.7%)	461 (0.4%)
Foreign body: respiratory tract	570 (0.7%)	530 (1.6%)	1,100 (1.0%)
Foreign body: aliment tract	1,928 (2.4%)	1,256 (3.9%)	3,184 (2.8%)
Foreign body: genito-urinary tract	66 (0.1%)	72 (0.2%)	138 (0.1%)
Intracranial (including concussion)	1,430 (1.8%)	409 (1.3%)	1,839 (1.6%)
Dental (including fractured tooth)	302 (0.4%)	259 (0.8%)	561 (0.5%)
Electrical injury	280 (0.3%)	95 (0.3%)	375 (0.3%)
Bite (including envenomation)	1,862 (2.3%)	1,108 (3.4%)	2,970 (2.6%)
Other specified nature of injury	1,822 (2.3%)	917 (2.8%)	2,739 (2.4%)
Unspecified nature of injury	2,296 (2.8%)	1,219 (3.8%)	3,515 (3.1%)
Total	80,594	32,477	113,072

* Persons includes 1 case for which sex was not reported.

Other unintentional—body region

The shoulder and upper limbs was the most commonly injured region for other unintentional injuries in 2004–05, accounting for two in five hospitalised cases (43.6%, $n = 49,327$). A higher proportion of cases involving males sustained injuries to the shoulder and upper limbs (47.4%, compared to 34.1% for cases involving females). Nevertheless, shoulder and upper limb injuries were the leading result of other unintentional injuries for both males and females. Similarly, the shoulder and upper limb region was the most commonly injured body region for cases due to exposure to inanimate mechanical forces, animate mechanical forces and other and unspecified factors, the three most common other unintentional injury groups (Table 3.44).

The hip and lower limb region was the second most commonly injured body region for a quarter of other unintentional injury cases overall (25.5%, $n = 28,838$). Injuries to the hip and lower limb region were proportionately more common for cases involving females (31.3% of cases vs. 23.1% for males), most likely related to the marked increase in rates of other unintentional injury for older females. Similarly, injuries to the hip and lower limb region were the most frequent type for injury for cases of overexertion, travel and privation injuries, relatively high rates of which were observed for people aged 70 years and older (see previously, Figure 3.37).

The principal diagnosis for about one in ten other unintentional injury cases reported other injuries not specified by body region (11.7%, $n = 13,264$). As expected, this was the most commonly injured ‘region’ for cases of accidental threats to breathing (other than drowning), exposure to electric current, radiation and the like, contact with venomous animals and plants, exposure to forces of nature, and sequelae (Table 3.44).

Table 3.44: Body region affected by principal diagnosis for other unintentional injury cases by external cause group: persons, Australia 2004–05

Body region	Inanimate mechanical forces (W20–W49)	Animate mechanical forces (W50–W64)	Accidental threats to breathing (W75–W84)	Electric current, radiation etc. (W85–W99)	Venomous animals & plants (X20–X29)	Exposure to forces of nature (X30–X39)	Overexertion, travel & privation (X50–X57)	Other & unspecified factors (X58–X59)	Sequelae (Y85, Y86, Y89.9)	Total
Head	6,058	3,654	8	10	16	7	63	5,312	33	15,161
Trunk [†]	1,939	1,297	6	8	17	11	1,631	1,580	31	6,520
Shoulder & upper limb	29,075	3,780	*	*	112	15	1,404	14,863	66	49,327
Hip & lower limb	8,789	2,856	*	*	157	19	5,590	11,375	45	28,838
Other injuries not specified by body region	6,671	558	747	966	2,776	619	213	636	78	13,264
Total	52,532	12,145	765	999	3,078	671	8,901	33,766	253	113,110

Note: Shading denotes most common body region category for each external cause group.

* Small case counts have been suppressed.

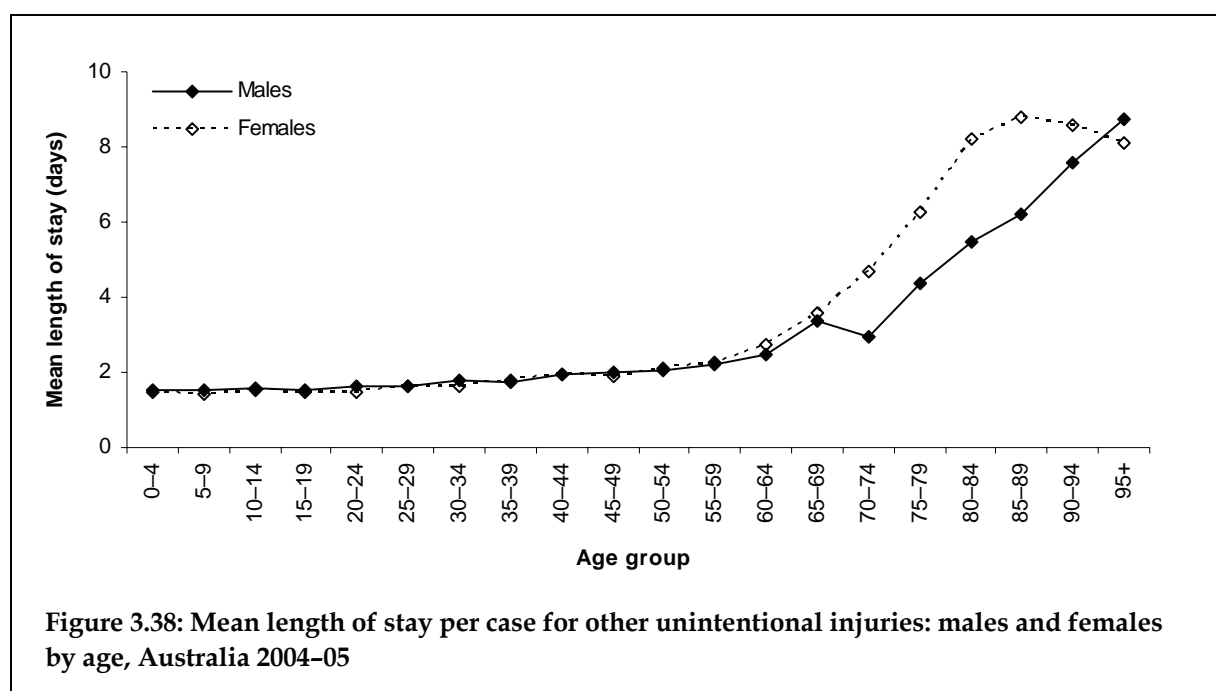
† Trunk includes the neck, thorax, abdomen, lower back, lumbar spine & pelvis.

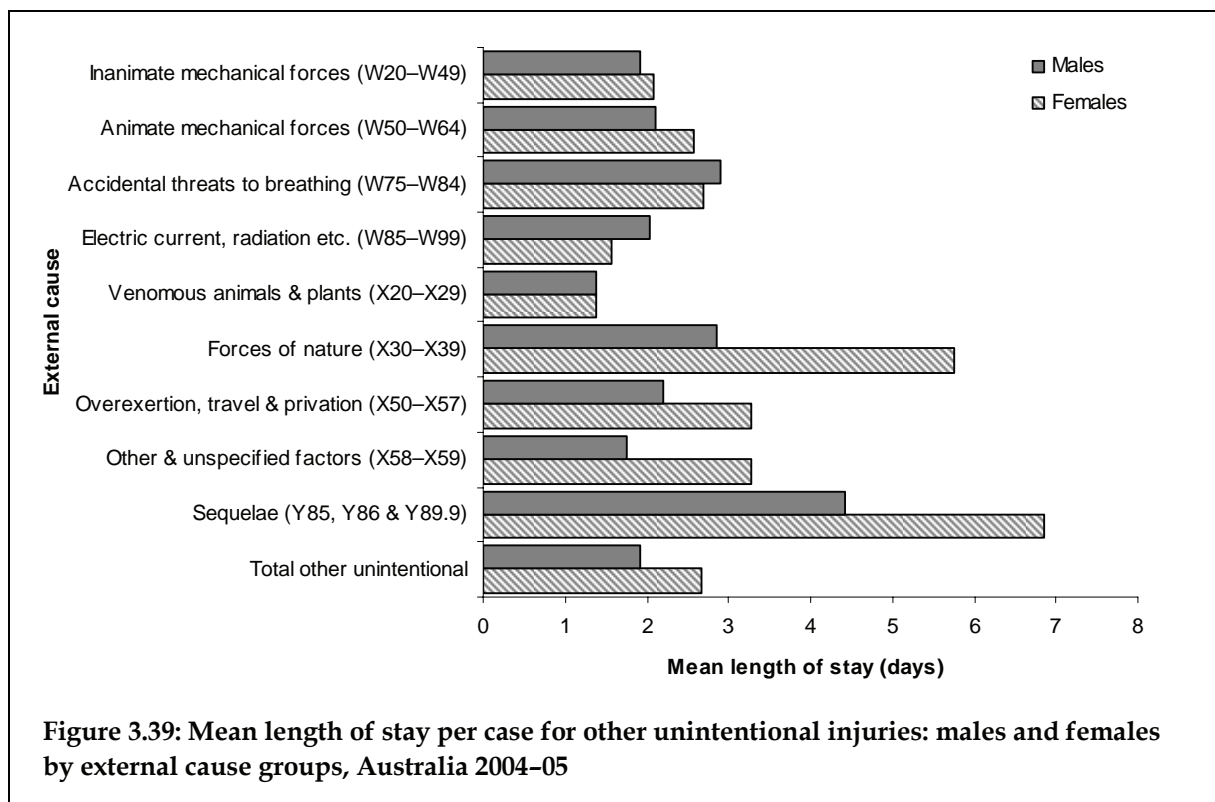
Other unintentional—length of stay

The injuries grouped as 'other unintentional' accounted for a third (31.7%) of all community injury cases in 2004–05 but accounted for a substantially smaller proportion of all patient-days attributed to community injury in this period (16.9%, $n = 241,566$). Unlike most other types of community injury cases, nearly half of case separations for other unintentional injuries reported that the person was discharged from hospital on the same day as admitted (45.1%, $n = 53,944$). Including these same-day separations, more than three-quarters other unintentional injury case separations reported a length of stay of one day (77.1%, $n = 87,182$). Nevertheless, a small proportion of unintentional injury cases reported quite long lengths of stay, in excess of 100 days ($n = 8$).

Not surprisingly, the mean length of stay per case for other unintentional injuries was short; 2.1 days. The mean length of stay for case separations for males was substantially shorter (1.9 days) than that of females (2.7 days). This is more likely due to differences in the ages of males and females hospitalised because of other unintentional injuries rather than the types of unintentional injuries sustained. As can be seen in Figure 3.38, mean lengths of stay were similar for males and females at younger ages, when the rates of such injuries involving males were up to four times higher than that for females. At older ages, however, when rates of other unintentional injuries for females matched or surpassed those for males, the mean length of stay for females was much longer than that for males for all but those aged 95 years and older.

Mean lengths of stay per case for most types of other unintentional injuries had quite short mean lengths of stay (Figure 3.39). Only injuries attributed to forces of nature (X30–X39) and sequelae of trauma (Y85, Y86 or Y89.9) having means substantially higher than most other types. For most types of other unintentional injuries, the mean length of stay per case for females was longer than that for males, substantially so for injuries attributed to forces of nature, overexertion, travel and privation, accidental exposure to other and unspecified factors and sequelae of trauma, all injuries that were more common in older people than for younger Australians.

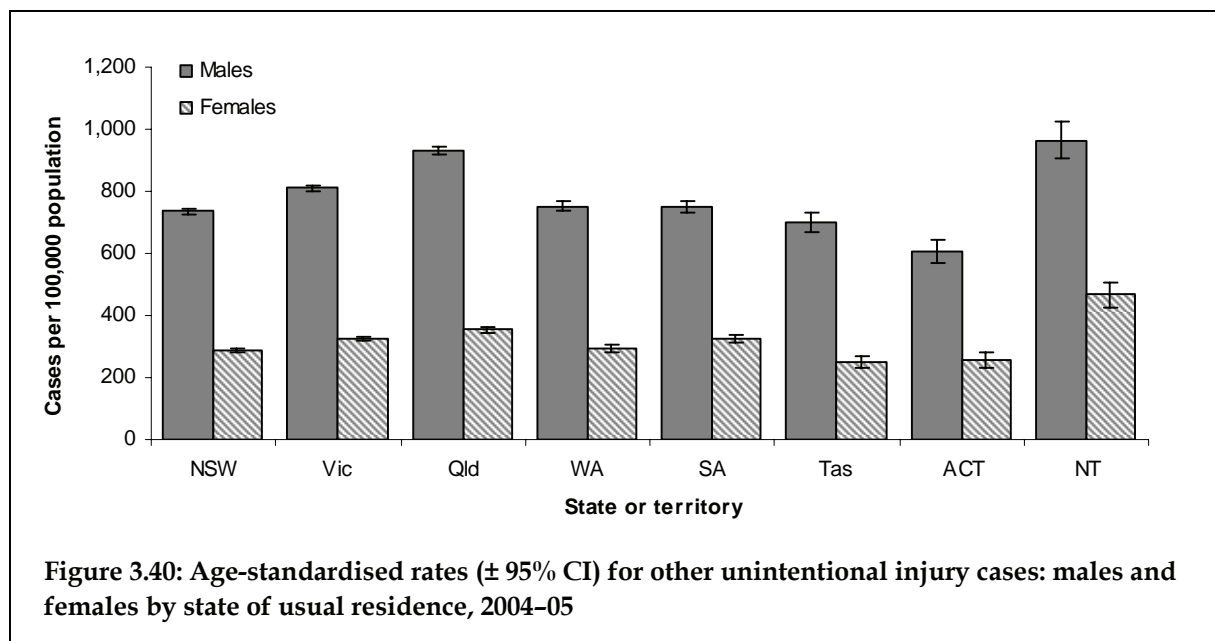




Other unintentional—state of usual residence

The age-standardised rates of hospitalised other unintentional injury cases by state of usual residence showed a similar distribution for both males and females (Figure 3.40). Rates for both males and females were highest for residents of the Northern Territory (males: 963.9 per 100,000 population; females: 465.8 per 100,000). For males, the rate of other unintentional injury cases for residents of the Northern Territory was not significantly higher than that for male residents of Queensland (924.9 per 100,000). For females, however, the rate of other unintentional injury cases for residents of the Northern Territory was significantly higher than for females in all other jurisdictions.

The lowest age-standardised rate of hospitalised other unintentional injury cases for males was observed for residents of the Australian Capital Territory (607.3 per 100,000 population). This was significantly lower than that observed for males resident in Tasmania (699.7 per 100,000). Conversely, the lowest age-standardised rate of hospitalised other unintentional injury cases for females was observed for residents of Tasmania (251.7 per 100,000), and this was not significantly different to that for females resident in the Australian Capital Territory (254.9 per 100,000).



Other unintentional—remoteness of usual residence

As for rates by state of usual residence, age-standardised rates of hospitalised other unintentional injury cases by remoteness of usual residence showed a similar distribution for both males and females (Figure 3.41). Rates for males increased consistently with increases in the remoteness classification of the place of usual residence. The widths of the confidence intervals suggest that the observed differences between the three most remote regions are not significant however. Conversely, for females, each increase in rate with increasing remoteness was significant.

The age-standardised rates of hospitalised other unintentional injury cases for males were significantly higher than those for females in all remoteness regions. In all regions other than Very remote Australia, male rates were at least 2.3 times higher than those for females. In Very remote Australia, however, the rate of other unintentional injury cases for males was ‘only’ 1.7 times higher than that for females.

