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Serious injury due to transport accidents, Australia, 2005–06

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Flinders UNIVERSITY

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Contents

Executive summary

This publication provides a summary of serious non-fatal injury due to transport accidents in Australia during the one-year period 2005–06 using the National Hospital Morbidity Database (NHMD). It provides an estimate of the number of people who were hospitalised due to road, rail, water and air transport accidents and were subsequently discharged alive either on the same day or after one or more nights stay in hospital. The main points of interest are as follows:

- Transport accidents accounted for 0.8% of all hospital separations in Australia and 11.9% of all injury-related hospital separations. A 'separation', defined in the appendix, can be understood as a stay in a hospital ward.

- There were 51,882 persons hospitalised due to a transport accident, contributing 234,928 patient days in hospital, with a mean length of stay of 4.5 days. Transport accidents accounted for 1.0% of total patient days in Australia and 11.9% of all injury-related patient days.

- On a population basis, the age-standardised rate of serious injury was 255 admissions to hospital per 100,000 population. Males had 2.2 times the rate of females, 349 per 100,000 population compared with 160 per 100,000 population.

- More than a third (35.3%) of persons seriously injured in a transport accident were car occupants, and most of these (88%) were injured on public roads. The age-standardised rate of serious injury for car occupants was 89 cases per 100,000 population.

- Nearly a quarter (24.0%) of persons seriously injured in a transport accident were motorcyclists (62 serious injury cases per 100,000 population). Over half (52%) of the motorcyclists were injured on public roads and 44% were injured off-road.

- Another 17.0% of persons seriously injured in a transport accident were pedal cyclists (44 serious injury cases per 100,000 population). Half of the pedal cyclists were injured off-road and close to half (47%) were injured on public roads.

- Another 7.3% of serious injury cases were pedestrians and 6.3% were animal riders or occupants of an animal-drawn vehicle.

- Over half (51%) of the persons seriously injured in a transport accident were less than 30 years of age. Young people aged 15–24 years represented over a quarter (27%) of all transport-related serious injury cases.

- The age-standardised rate of serious injury due to transport fluctuated over the seven-year period 1999–00 to 2005–06 with no clear trend.

Abbreviations

ABS	Australian Bureau of Statistics
AIHW	Australian Institute of Health and Welfare
ATSB	Australian Transport Safety Bureau
ICD	International Classification of Diseases
ICD-10-AM	International Classification of Diseases, 10th Revision, Australian Modification
ICISS	ICD-based Injury Severity Score
NHMD	National Hospital Morbidity Database
SRR	Standardised Rate Ratio

1 Introduction

Transport accidents are a leading cause of injury, both fatal and non-fatal. The primary purpose of this publication is to present estimates of the numbers of persons seriously injured in Australia due to transport accidents in the one-year period 2005–06 (Table 1.1), the latest year for which data are available.

Table 1.1: Transport injury, Australia, 2005–06

Case numbers	Males	Females	Persons
Persons seriously injured†	35,521	16,358	51,882 [(a)]

Note: † In this report 'seriously injured' means admitted to hospital due to injury (see Data Issues 'Serious injury', p. 8).

(a) Includes cases where sex is missing or indeterminate.

Serious injury is defined for this report as an injury which results in the person being admitted to hospital, and subsequently discharged alive either on the same day or after one or more nights stay in a hospital bed (i.e. deaths are excluded). Readers should consult the appendix for notes on the methodology employed and for the meaning of technical terms occasionally used in this report where necessary, terms such as 'separations' for example.

This report includes non-fatal injury due to road and rail transport, water and air transport. Road and rail transport includes traffic (occurring on a public road), non-traffic and unspecified as to whether traffic or non-traffic. This definition of transport injury excludes injury recorded as being due to intentional self harm, assault or undetermined intent.

A detailed analysis of non-fatal injury due to land transport, with a focus on road vehicle traffic crashes in particular, is provided in another report in the series entitled 'Serious injury due to land transport accidents, Australia, 2005–06'(Berry & Harrison 2008).

2 National overview 2005–06

Key indicators and mode of transport

In 2005–06, transport was the third[(a)] leading cause of serious injury (11.6%), after fall injuries (29.3%) and complications of surgical and medical care (16.7%) (Table 2.1). Over a quarter (26.4%) of transport injuries represented a high threat to life. Only injuries resulting from drowning and immersion (88.4%) posed a higher threat to life.

Table 2.1: Serious injury† due to external causes of injury and poisoning, Australia, 2005–06

	Serious injury* [(b)]						
	All cases			High threat to life cases**			Per cent high threat-to-life
External cause of injury	Count	Per cent	Rate‡	Count	Per cent	Rate‡	
Unintentional							
Transportation	51,882	11.6	255.0	13,713	22.6	66.9	26.4
Drowning and immersion	465	0.1	2.3	411	0.7	2.1	88.4
Poisoning, pharmaceuticals	6,365	1.4	31.3	104	0.2	0.5	1.6
Poisoning, other substances	4,044	0.9	20.0	134	0.2	0.7	3.3
Falls	130,646	29.3	614.3	31,925	52.7	142.7	24.4
Fires/burns/scalds	5,430	1.2	27.0	1,380	2.3	6.8	25.4
Other unintentional[(a)]	122,029	27.3	598.1	4,942	8.2	23.6	4.0
Intentional							
Self inflicted	23,670	5.3	116.6	982	1.6	4.8	4.1
Inflicted by another person	22,038	4.9	109.1	4,702	7.8	23.3	21.3
Undetermined intent	4,430	1.0	21.8	178	0.3	0.9	4.0
Complications of surgical and medical care	74,753	16.7	353.6	2,062	3.4	9.7	2.8
Other and unknown	555	0.1	2.7	100	0.2	0.5	18.0
Total	**446,307**	**100.0**	**2151.7**	**60,633**	**100.0**	**282.4**	**13.6**

Note:
† Includes cases where Principal Diagnosis was coded to ICD-10-AM S00–T98.
* ICD-10-AM External Causes codes aggregated as in (Berry & Harrison 2007).
** ICD-based Injury Severity Score (ICISS) <0.941 with weights from (Stephenson et al. 2004).
‡ Per 100,000 population, adjusted by direct standardisation to the Australian population in June 2001.

In the one-year period 2005–06, there were a total of 7,311,983 hospital separations from public, private and psychiatric hospitals in Australia corresponding to a total of 24,330,653 patient days (AIHW 2007). Transport accidents accounted for 0.8% of all hospital separations in Australia and 11.9% of all injury-related hospital separations (Table 2.2).

(a) Other unintentional injury was not included in the ranking, as it comprised a heterogeneous group of injury types that did not fit within the other specified injury groupings.

(b) The number of persons seriously injured is estimated by omitting inward transfers from one hospital to another.

During 2005–06, there were 1,974,621 injury-related patient days in hospital, with a mean length of stay of 4.4 days. There were 234,928 transport–related patient days, with a mean length of stay of 4.5 days, which accounted for 1.0% of all patient days in Australia and 11.9% of all injury-related patient days.

The number of persons seriously injured is shown in Table 2.2 and is estimated by omitting inward transfers from one hospital to another. The injured person was discharged on the same day as they were admitted in 32% of serious injury cases.

The age-standardised rate of transport serious injury was 255 admissions to hospital per 100,000 population. The male:female age-standardised rate ratio was 2.2:1.0, indicating that, after accounting for any differences in age composition, twice as many males as females were hospitalised as a result of transport injury, 349 per 100,000 population, compared with 160 per 100,000 population.

Table 2.2: Key indicators for serious transport injury, Australia, 2005–06

Indicator	Males	Females	Persons*
Seriously injured † (c)			
Persons admitted to hospital (d)	35,521	16,358	51,882
Percentage of all hospital separations	1.2	0.5	0.8
Percentage of all hospital separations due to injury	14.4	8.6	11.9
Same day hospitalisations	11,329	5,521	16,851
Mean length of stay in hospital (days)‡	4.6	4.4	4.5
Total patient days (including same day and deaths in hospital)	162,982	71,935	234,928
Crude rate/100,000 population**	349.2	159.1	253.7
Age-standardised rate/100,000 population***	349.0	159.5	255.0

Note
† Includes cases where Principal Diagnosis was coded to ICD-10-AM S00–T98.
* Includes cases where sex is missing or indeterminate.
** Using population denominators in December 2005.
*** Adjusted by direct standardisation to the Australian population in June 2001.
‡ This is the average number of days a person is likely to stay in hospital when seriously injured.

In the one-year period 2005–06, 35.3% of persons seriously injured in a transport accident were occupants of a car. Another 24.0% were motorcyclists, 17.0% were pedal cyclists, 7.3% were pedestrians and 6.3% were animal-riders or occupants of an animal-drawn vehicle (Table 2.3).

(c) The terms *seriously injured* and *hospitalisation* are used interchangeably and represent a person being admitted to hospital for injury and subsequently discharged alive, either on the same day or after one or more nights stay in a hospital bed (i.e. deaths are excluded). Discharge from hospital can include transfer to home, to another acute care hospital and to another form of care (e.g. rehabilitation). In this report, a method has been used to reduce over-counting of injury cases by omitting separations in which the mode of admission is recorded as being by transfer from another acute-care hospital, on the grounds that such cases are likely to result in two or more separation records for the same injury.

(d) In total, there were 57,435 admissions to hospital for transport injury for an estimated 52,273 persons, of which 391 (0.7%) died while in hospital. These deaths are included in estimates of fatal transport injury provided elsewhere by organisations such as the Australian Transport Safety Bureau and are omitted from the seriously injured counts in Table 2.2 and throughout the report in order to avoid double-counting. The estimate of total patient days includes separations in which the person died in hospital.

Table 2.3: Mode of transport for serious injury, Australia, 2005–06

Seriously injured person	Count*	Per cent	Rate‡
Car occupant	18,321	35.3	89.2
traffic	*16,146*	*31.1*	*78.6*
non-traffic	*1,593*	*3.1*	*7.8*
Motorcyclist	12,455	24.0	61.7
traffic	*6,479*	*12.5*	*32.0*
non-traffic	*5,531*	*10.7*	*27.5*
Pedal cyclist	8,814	17.0	44.0
traffic	*4,370*	*8.4*	*21.7*
non-traffic	*4,129*	*8.0*	*20.7*
Pedestrian	3,779	7.3	18.4
traffic	*2,644*	*5.1*	*12.9*
non-traffic	*720*	*1.4*	*3.5*
Occupant of pick-up truck or van	535	1.0	2.6
traffic	*343*	*0.7*	*1.7*
non-traffic	*146*	*0.3*	*0.7*
Occupant of heavy transport vehicle	726	1.4	3.5
traffic	*408*	*0.8*	*2.0*
non-traffic	*207*	*0.4*	*1.0*
Bus occupant	425	0.8	2.0
traffic	*197*	*0.4*	*0.9*
non-traffic	*81*	*0.2*	*0.4*
Animal rider or occupant of animal-drawn vehicle	3,278	6.3	16.2
Occupant of a special all-terrain or off-road motor vehicle	680	1.3	3.4
Occupant of three-wheeled motor vehicle	96	0.2	0.4
Occupant of a tram	72	0.1	0.3
Occupant of a train	116	0.2	0.6
Occupant of a special industrial vehicle	152	0.3	0.7
Occupant of a special agricultural vehicle	219	0.4	1.1
Occupant of a special construction vehicle	60	0.1	0.3
Occupant of watercraft	827	1.6	4.0
Occupant of aircraft	156	0.3	0.8
Other and unspecified	1,171	2.3	5.8
Total	**51,882**	**100.0**	**255.0**

Note
Shading denotes the 3 highest figures for a column. 'Mode of transport' here means the vehicle the person was travelling in at the time of being injured in a transport accident. 'Other and unspecified' includes V87, V88, V89, V98, and V99 for ICD-10-AM (hospitals). A 'special all-terrain or off-road motor vehicle' refers only to such vehicles that are not registrable for on-road use and does not include registrable 4WDs (e.g. Pajeros) which are included under 'car occupants'. A traffic accident is any vehicle accident occurring on a public road [i.e. originating on, terminating on, or involving a vehicle partially on the road]. A non-traffic accident is any vehicle accident that occurs entirely at any place other than a public road. For a certain proportion of cases, whether an accident was traffic or non-traffic was unknown. These cases are included in the totals for each mode of transport and this is the reason the sum of traffic and non-traffic cases is sometimes less than the total for each mode.

* Totals for the road user groups stratified by traffic and non-traffic include cases that are unspecified as to whether traffic or non-traffic.
‡ Per 100,000 population, adjusted by direct standardisation to the Australian population in June 2001.

Rates of serious injury by mode of transport

Most transport serious injury cases (97.2%; n=50,401) were known to have involved land transport. The rate of serious injury was highest for car occupants with an age-standardised rate of 89 serious injury cases per 100,000 population (Table 2.3). Eighty-eight per cent of seriously injured car occupants were injured in traffic conditions (i.e. on public roads).

The second most common mode of transport was a motorcycle (62 serious injury cases per 100,000). About half (52%) of seriously injured motorcyclists were injured in traffic conditions (i.e. on public roads) and 44% were injured in non-traffic conditions.

The third most common mode of transport was a pedal cycle (44 serious injury cases per 100,000). Half of the seriously injured cyclists were injured in traffic conditions and 47% were injured in non-traffic conditions.

The fourth most common mode of transport was walking (pedestrians, 18 serious injury cases per 100,000). The majority (70%) of seriously injured pedestrians were injured in traffic conditions.

The fifth most common mode of transport was an animal or animal-driven vehicle (16 serious injury cases per 100,000).

Age and sex distribution

Males accounted for over two-thirds (68%; n=35,521) of serious injury due to transport accidents in 2005–06. The higher rate for males can be observed at all ages. The rates of serious injury were high at ages 15–24 years (males: 712 per 100,000 among 15–19 years and 646 per 100,000 among 20–24 years, females: 312 per 100,000 among 15–19 years and 258 per 100,000 among 20–24 years) (Figure 2.1 and Table 2.4).

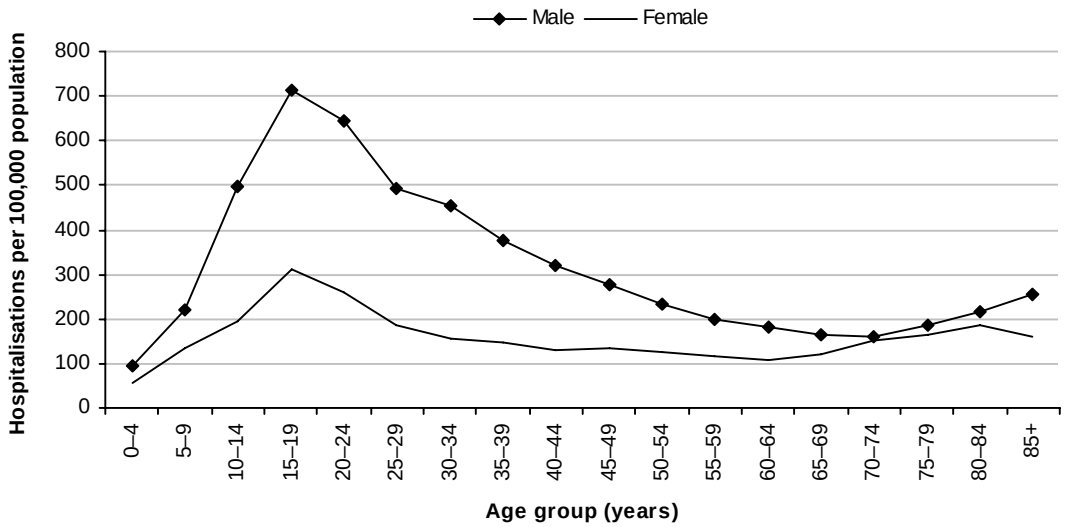

Figure 2.1: Age-specific serious injury rates for transport injury by sex, Australia, 2005–06

Over half (51%; n=26,691) of the persons seriously injured in a transport accident were less than 30 years of age. Young people aged 15–24 years represented over a quarter (27%) of all transport-related serious injury cases (Table 2.5).

Table 2.4: Age-specific and age-standardised rates of serious injury due to transport, Australia, 2005–06

Indicator	Age group (years)																	All ages (crude)	Age Std*
	0–4	5–9	10–14	15–19	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65–69	70–74	75–79	80–84	85+	
Serious injury																			
Males	96.3	221.7	496.2	711.9	646.3	492.5	452.3	374.3	320.8	278.8	235.6	197.9	181.6	165.7	159.9	186.2	217.1	257.1	349.2	349.0
Females	57.1	133.2	194.1	312.5	258.4	184.8	155.3	145.7	128.7	135.1	125.5	118.6	109.9	121.4	149.8	165.2	186.2	159.2	159.1	159.5
Persons	77.3	178.6	349.1	517.1	456.9	340.5	303.3	259.4	224.4	206.5	180.1	158.3	146.1	143.3	154.6	174.8	198.9	191.2	253.7	255.0
M:F rate ratio	1.7	1.7	2.6	2.3	2.5	2.7	2.9	2.6	2.5	2.1	1.9	1.7	1.7	1.4	1.1	1.1	1.2	1.6	2.2	2.2

Note: * Adjusted by direct standardisation to the Australian population in June 2001.

Table 2.5: Serious injury due to transport by age group, Australia, 2005–06

Age group	Males		Females		Persons	
	Count	Per cent	Count	Per cent	Count	Per cent
0–14 years	5,668	16.0	2,523	15.4	8,192[(a)]	15.8
15–24 years	9,868	27.8	3,950	24.1	13,819[(a)]	26.6
25–44 years	12,005	33.8	4,496	27.5	16,501	31.8
45–64 years	5,749	16.2	3,124	19.1	8,874[(a)]	17.1
65+ years	2,231	6.3	2,265	13.8	4,496	8.7
Total	**35,521**	**100.0**	**16,358**	**100.0**	**51,882[(a)]**	**100.0**

(a) Includes cases where sex is missing or indeterminate.

Trends in serious injury rates from 1999–00 to 2005–06

Case counts and trends in the rates of serious injury due to transport over seven years are shown in Table 2.6. The age-standardised rate of serious injury due to transport fluctuated over the seven-year period 1999–00 to 2005–06 with no clear trend.

Table 2.6: Trends in the age-standardised rate of serious injury due to transport, Australia, 1999–00 to 2005–06

	Age-standardised rate per 100,000 population (95% CI)						
Seriously injured	**1999–00**	**2000–01**	**2001–02**	**2002–03**	**2003–04**	**2004–05**	**2005–06**
Males	334 (330–338)	333 (329–337)	340 (336–344)	320 (316–323)	330 (327–334)	343 (339–346)	349 (345–353)
Females	159 (157–162)	155 (153–158)	155 (153–158)	150 (148–153)	152 (150–155)	159 (157–162)	159 (157–162)
Persons	247 (245–249)	244 (242–247)	248 (246–250)	236 (233–238)	242 (240–244)	252 (250–254)	255 (253–257)
	Case numbers						
Seriously injured	**1999–00**	**2000–01**	**2001–02**	**2002–03**	**2003–04**	**2004–05**	**2005–06**
Males	31,906	32,085	33,139	31,489	32,861	34,503	35,521
Females	15,279	15,068	15,255	14,947	15,297	16,157	16,358
Persons	47,186 [(a)]	47,153	48,395 [(a)]	46,436	48,160 [(a)]	50,662 [(a)]	51,882 [(a)]

(a) Includes cases where sex is missing or indeterminate.

Appendix: Data issues

Serious injury

National hospital separations data were provided by the Australian Institute of Health and Welfare (AIHW) National Hospital Morbidity Database (NHMD). A 'separation' is a term used in Australian hospitals to refer to a formal, or statistical process, by which an episode of care for an admitted patient ceases (AIHW 2001). An 'episode of care' is a period of health care characterised by only one care type. For the lay person, this is perhaps best understood as a stay in a particular ward in a hospital. For example, a person who is in an intensive care ward and is then transferred to a rehabilitation ward will have undergone two episodes of care and hence two separations within the hospital.

Hospital cases were defined as being due to transportation if they contained a first reported Chapter 20 external cause code in the ICD-10-AM range V01–V99. Cases with a Principal Diagnosis other than injury and cases in which transportation only appears as an additional external cause code were excluded on the grounds that injury due to a transport accident was not recorded as being the main reason for admission to hospital (Table A1), resulting in a starting file of 57,435 records.

Table A1: Selection criteria for hospital records of transport injury

Record occurring from 1 July 2005 to 30 June 2006	Persons
Records with an ICD-10-AM 'Transport Accident' code (V01–V99) as external cause anywhere in the record.*	66,367
Records with a 'Transport Accident' as first reported external cause†, and	65,748
• Injury as a Principal Diagnosis (S00–T98)	57,435

Note

* There were 619 records with a first reported external cause code of another type of injury (e.g. other unintentional injuries, complications of surgical and medical care, falls, intentional self-harm etc.) but a 2nd or subsequent external cause code of transportation.

† There were 8,313 cases with a first reported external cause code of transportation but a Principal Diagnosis outside of the injury range (S00–T98). The most common Principal Diagnoses were *care involving use of rehabilitation procedure, unspecified* (Z50.9, n=3,605), *examination and observation following transport accident* (*Z04.1*, n=788), *cervicalgia* (*M54.2*, n=229), *other specified surgical follow-up care* (*Z48.8,* n=181), *cellulitis of lower limb* (*L03.11,* n=168) and *other physical therapy* (*Z50.1*, n=154).

Seriously injured is defined for this report as an injury which results in the person being admitted to hospital, and subsequently discharged alive either on the same day or after one or more nights stay in a hospital bed (i.e. deaths are excluded). The terms *seriously injured* and *hospitalisation*s are used interchangeably in the report. As discharge from hospital can include transfer to home, to another acute care hospital and to another form of care (e.g. rehabilitation), a method has been used in this report to reduce over-counting of injury cases by omitting separations in which the mode of admission is recorded as being by transfer from another acute-care hospital, on the grounds that such cases are likely to result in two or more separation records for the same injury.

Records that met the following criteria are included in this report:

- Australian hospital separations occurring 1 July 2005 to 30 June 2006, coded according to the fourth edition of ICD-10-AM (NCCH 2004).
- Principal Diagnosis in the ICD-10-AM range S00–T98 using Chapter XIX *Injury, poisoning and certain other consequences of external causes* codes.
- First (left-most) external cause of morbidity in ICD-10-AM range V01–V99 (i.e. the 'Transport Accidents' section of Chapter XX *External causes of morbidity and mortality*).
- Mode of admission has any value except the one indicating that transfer from another acute-care hospital has occurred.
- Mode of separation has any value except the one indicating that the persons died while in hospital.

The calculation of transport accidents as a percentage of all hospital separations and the calculation of total patient days (including same day, which are assigned a stay of one day) requires the inclusion of all separations (i.e. not omitting separations in which the mode of admission is recorded as being by transfer from another acute-care hospital or separations in which the person died in hospital).

Serious injury with a high threat to life

High threat to life hospitalisations are cases with injury diagnoses that have been found to be associated with a probability of death before discharge from hospital of 5.9% or higher according to the ICD-based Injury Severity Score (ICISS) method, as implemented by Stephenson et al. (2004), using Australian hospital separations data. This report uses a slightly different method to calculate the ICISS scores compared to the previous report in the series (Harrison & Berry 2007). In the previous report, standardised rate ratios (SRRs) were calculated using only two data years (1999–00 and 2000–01), whereas the current report utilises seven data years (1999–00 to 2005–06) which should yield more accurate ICISS values.

Population and other denominators

All rates in this report were calculated using, as the denominator, the final estimate of the estimated resident population as at 31 December in the relevant year, obtained from the AIHW (e.g. 31 December 2005 for 2005–06 data).

Direct standardisation was used to age-standardise rates, using the Australian population in 2001 as the standard (ABS 2003). Age-standardised rates and 95% confidence intervals were calculated in Stata version 9.2 statistical software (Stata Corporation 2005) using the -dstdize- command.

Comparability with other reports

Australian hospitals use an international standard classification called the International Statistical Classification of Diseases (ICD) when compiling data on persons injured and subsequently admitted to hospital (morbidity data). ICD provides a nationally consistent basis for looking at morbidity due to transport accidents of all kinds (road, rail, water and air). However, it is not necessarily consistent with the approach taken by the Australian Transport Safety Bureau (ATSB) or others in looking at safety in each transport mode individually. For example, road safety statistics compiled by the ATSB are focused on crashes on public roads, whereas ICD covers road crashes both on and off public roads. Aviation statistics compiled by the ATSB do not cover hang-gliders, gliders and other forms of non-powered aircraft, whereas ICD does.

Serious injury data series published previously by the ATSB for the period 1999–00 to 2002–03 excluded same-day separations from the definition of serious injury. The recently published report for the period 2003–04 (Harrison & Berry 2007) and the current report include same-day separations in the figures. This effectively means the threshold for serious injury is now 'admitted to hospital', regardless of the length of stay. In 2005–06, same-day separations accounted for one-third of non-fatal transport injury. It has been found that persons with injuries that pose a high threat to life can still be admitted to and discharged from hospital on the same day. In 2005–06, for example, there were over 2,500 such transport injury cases.

The 1999–00 to 2002–03 data series also focused only on serious injury in traffic or accidents on public roads whereas the report for the period 2003–04 (Harrison & Berry 2007) and the current report has broadened the scope to include non-traffic or off-road accidents, further increasing the overall figures above those previously reported.

For national road deaths, readers should refer to the 'road safety / statistics' part of the Department website at <www.infrastructure.gov.au>, where road death statistics are published on a monthly basis. Similarly, for details on marine, rail and air safety (aviation death statistics are published monthly) the relevant part of the ATSB website should be consulted <www.atsb.gov.au>.

References

ABS (Australian Bureau of Statistics) 2003. Population by age and sex, Australian states and territories, 2001 Census Edition-Final. ABS cat. no. 3201.0. Canberra: ABS.

AIHW (Australian Institute of Health and Welfare) 2001. National health data dictionary, version 10. Cat. no. HWI30. Canberra: AIHW.

AIHW 2007. Australian hospital statistics 2005-06. Cat. no. HSE 50. Canberra: AIHW.

Berry J & Harrison J 2007. Hospital separations due to injury and poisoning, Australia 2003–04. AIHW cat. no. INJCAT 88. Adelaide: AIHW.

Berry J & Harrison J 2008. Serious injury due to land transport accidents, Australia, 2005–06. AIHW cat. no. INJCAT 107. Adelaide: AIHW.

Harrison J & Berry J 2007. Serious injury due to transport accidents, Australia, 2003–04. AIHW cat. no. INJCAT 101. Adelaide: AIHW.

NCCH (National Centre for Classification in Health) 2004. The International Statistical Classification of Diseases and related health problems, 10th revision, Australian Modification (ICD-10-AM). Fourth edition 1 July 2004. Sydney: University of Sydney.

Stata Corporation 2005. Stata statistical software [computer program] version 9.2. College Station, TX: Stata Corporation.

Stephenson S, Henley G & Harrison J 2004. Diagnosis based injury severity scaling: investigation of a method using Australian and New Zealand hospitalisations. Injury Prevention 10 (6):379–83.

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This report presents national statistics on serious injury due to transport accidents that resulted in admission to hospital in Australia during the one-year period 2005–06. It examines variables such as mode of transport, gender and age group.