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Hospitalised injuries in Aboriginal and Torres Strait Islander children and young people 2011–13



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Australian Institute of
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Hospitalised injury in Aboriginal and Torres Strait Islander children and young people

2011–13

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Abbreviations

ABS	Australian Bureau of Statistics
ARIA	Accessibility/Remoteness Index of Australia
AIHW	Australian Institute of Health and Welfare
ASGC	Australian Standard Geographical Classification
ASGS	Australian Statistical Geography Standard
ERP	Estimated Resident Population
ICD-10-AM	International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification
METeOR	Metadata Online Registry
NCCH	National Centre for Classification in Health
NISU	National Injury Surveillance Unit
NHMD	National Hospital Morbidity Database
NMDS	National Minimum Data Set
NPHP	National Public Health Partnership
SLA	Statistical Local Area
WHO	World Health Organization

Symbols

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

The aim of this report is to provide information about injuries that lead to hospitalisation of Aboriginal and Torres Strait Islander children and young people aged 0 to 24 years. Injury is a significant health issue for Aboriginal and Torres Strait Islander people of all ages with rates of injury for specific causes many times that of other Australians.

In the 2-year period examined (2011–12 to 2012–13), there were 18,537 Indigenous children and young people (0 to 24 years) hospitalised due to injury and poisoning. The age-standardised rate of injury was higher among Indigenous males (2,982 cases per 100,000 population) compared with Indigenous females (2,023).

Age groups and sex

Rates of injury among Indigenous children and young people tended to be high at older ages, with the highest rate of injury (3,988 cases per 100,000 population) among 18–24 year olds. Differences emerged when sex was taken into account. For Indigenous boys and young men, rates of injury tended to be high at older ages, with the highest rate of injury (4,638 cases per 100,000 population) in 18–24 year olds and the lowest in infants (1,230). For Indigenous girls and young women, the highest rate of injury also occurred in 18–24 year olds (3,305) but the lowest rate occurred in Indigenous girls aged 10–14 years (1,197).

Remoteness

Rates of injury among Indigenous children and young people generally increased with increasing remoteness of usual residence. In *Remote and very remote* areas over half (51%) of the children and young people hospitalised due to injury were Indigenous. The increase in rate of injury with increasing remoteness was more pronounced from about 10 years of age.

Fall injuries

The most common specific cause of injury among Indigenous children and young people was a fall (24%). Falls were the leading cause of hospitalisations for Indigenous children aged <12 months, 1–4 years, 5–9 years and 10–14 years. The largest proportion of fall hospitalisations in 1–4 and 5–9 year olds were due to falls involving playground equipment; 20% and 34%, respectively.

Assault injuries

Assault was the leading cause of hospitalisation for Indigenous people aged 15–17 and 18–24 years. The rate of assault injury among Indigenous children and young people overall (457 cases per 100,000 population) was 6 times higher than that of other Australians (79). The rate of assault injury among Indigenous boys and young men (428 cases per 100,000 population) was almost 4 times higher than that of other Australian males (118), while the rate of assault injury among Indigenous girls and young women (486), was more than 17 times higher than their other Australian counterparts (28); it was 12 times higher for 15–17 year olds and 22 times higher for Indigenous women aged 18–24 years. The hospitalisation rate for Indigenous infants aged less than 12 months was over 8 times the rate for other Australian infants.

1 Introduction

The aim of this report is to provide information about injuries that lead to hospitalisation in Aboriginal and Torres Strait Islander children and young people aged 0 to 24 years. The report takes a developmental stage approach to examining injury, acknowledging that age and injury are closely linked at some periods of life – for example, early childhood and young adulthood (AIHW: Pointer 2014). In particular, within early childhood, patterns and rates of injury vary greatly with age in ways that have often been considered to reflect development (see, for example, Flavin et al. 2006; MacInnes & Stone 2008).

Injury is a significant health issue for Aboriginal and Torres Strait Islander people of all ages (AIHW: Pointer 2014; Ivers et al. 2008), with rates of injury for specific causes many times those of the other Australians population (AIHW 2011; Berry et al. 2009; Pointer 2013). In recognition of the high rates of injury among Indigenous children, the National Aboriginal and Torres Strait Islander Safety Promotion Strategy (NPHP 2005) identified children and young people's safety as 1 of 6 priority areas.

Many factors contribute to the relatively high rates of hospitalised injuries in Aboriginal and Torres Strait Islander children and young people. These include the ongoing effects of colonisation, social disadvantage, drug and alcohol misuse, poor safety standards and unsafe roads and living environments (AIHW 2011). Indigenous children and young people may also be at higher risk of injury due to overcrowding at home, economic deprivation and high levels of exposure to domestic violence (Clapham et al. 2012).

In addition, a higher proportion of Aboriginal and Torres Strait Islander children and young people live in remote areas, and remoteness is significantly associated with higher rates of injury (Eades et al. 2010; Helps & Harrison 2006; Pointer 2014).

Types of injury

While Indigenous children and young people experience many of the same types of injuries at similar ages to non-Indigenous children and young people, in a number of areas Indigenous children experience significantly higher rates of injury at a greater range of ages (Möller et al. 2015). Three of the external causes of injury that disproportionately affect Aboriginal and Torres Strait Islander children and young people are outlined below.

Injuries due to thermal causes

Burn injuries are a leading cause of hospitalised injury among children less than 5 years of age (Pointer 2014). A number of studies have identified higher rates of scald and burn injuries among Indigenous children compared with their non-Indigenous counterparts (Duke et al. 2011; Martin et al. 2014). In addition to suffering a greater number of burns and scalds, the impact on Indigenous children and families is often exacerbated due to the long distances Indigenous children living in rural and remote areas need to travel for treatment. McGarry et al. (2013) highlight, in a study of the impact on parents of burns survivors, the additional stressors on children, and families, many of whom have never been out of their communities before, due to distance.

Assault

Indigenous children and young people are more likely to be victims of child abuse, neglect and sexual assault than their non-Indigenous peers (AIHW: Pointer 2014; Guthridge et al. 2014). Quite a number of studies have shown much higher rates of hospitalisation among Indigenous children and young people as a result of maltreatment and assault (O'Donnell et al. 2012; Irie et al. 2012). Indigenous females tend to be more at risk of assault hospitalisations than males, and Indigenous children and young people living in remote areas have higher rates of assault injuries than those living in major cities (Irie et al. 2012).

Intentional self-harm

Intentional self-harm was the second most common cause of death from external causes for Indigenous children aged 0–17 between 2001 and 2011 (AIHW 2014b). Indigenous children and young people are vastly overrepresented in intentional self-harm and suicide statistics in Australia (Mitchell & Gooda 2015; Soole et al. 2014).

Age groups and developmental stage

The age groups used in this report are based on relevant bands given in the National Injury Prevention and Safety Promotion Plan: *Children* (0–4 and 5–14 years) and *Youth and young adults* (15–24 years) (NPHP 2005), with additional subdivisions made as follows:

- less than 12 months (Infancy)
- 1–4 years (Early childhood)
- 5–9 years (Middle childhood)
- 10–14 years (Late childhood)
- 15–17 years (Adolescence)
- 18–24 years (Young adulthood).

Methods and data sources

This report uses data from the National Hospital Morbidity Database (NHMD) covering the 2-year period 1 July 2011 to 30 June 2013 to provide information on injury in Aboriginal and Torres Strait Islander children and young people in Australia. Two years of data have been aggregated because the numbers of injuries due to some external causes are small for single years.

This report only includes cases of Indigenous and other Australian children and young people who were admitted to a hospital. It does not include injury cases that were treated in an emergency department, presentations to general practitioners or other non-hospital-based treatment facilities.

Diagnosis and external cause information for the hospital separations reported here were coded according to the International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM) (NCCH 2010). It comprises classifications of diseases and external causes of injuries and poisoning, based on the World Health Organization's version of ICD-10. The ICD-10-AM classification is hierarchical, with 20 summary disease chapters that are divided into a large number of more specific groupings of diseases and external causes.

What data are reported?

In addition to counts and other basic descriptive statistics, this report presents age-specific and age-standardised rates. Information about the calculation and use of rates can be found in Appendix A.

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

- hospital separations occurring in Australia from 1 July 2011 to 30 June 2013
- age at the time of admission 0 to 24 years
- principal diagnosis in the ICD-10-AM range S00–T75 or T79 from ‘Chapter XIX Injury, poisoning and certain other consequences of external causes’
- mode of admission was not a transfer from another acute hospital (see Appendix A for details).

In tables and charts, unless stated otherwise, separations for which age and sex were not reported are included in totals.

In tables and charts, rates are accompanied by a rate ratio. The rate ratio is equal to the rate for Indigenous Australians divided by the rate for other Australians. If the rate ratio is greater than 1, then the rate for the category for Indigenous children and young people was higher than the rate for other Australians.

Fortunately, in Australia, hospitalisations for injuries among young children are relatively infrequent. Readers are cautioned that in many instances throughout this report, rates of injury are based on fewer than 100 cases. This is particularly apparent in analyses describing injury type by remoteness of usual residence. In some instances, certain age categories have been excluded due to small case numbers, while in other instances, note has been made in the text of the small case numbers present.

Important terms regarding the data used in this report are summarised in boxes 1.1 to 1.6 and further information on data and methods is provided in Appendix A.

Box 1.1: Summary of terms relating to injury

Statistics on admitted patients are compiled when an **admitted patient** (a patient who undergoes a hospital’s formal admission process) completes an episode of admitted patient care and ‘separates’ from the hospital. This is because most of the data on the use of hospitals by admitted patients are based on information provided at the end of the patients’ episodes of care, rather than at the beginning. The length of stay and the procedures carried out are then known and the diagnostic information is more accurate.

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

The **principal diagnosis** is the diagnosis established after study to be chiefly responsible for occasioning the patient’s episode of admitted patient care.

(continued)

Box 1.1 (continued): Summary of terms relating to injury

An **external cause** is defined as the environmental event, circumstance or condition that was the cause of injury or poisoning. Whenever a patient has a principal or additional diagnosis of an injury or poisoning, an external cause code should be recorded.

The **injury separation** records included in this report are those that have a principal diagnosis code in the ICD-10-AM range S00–T75 or T79. Whenever a patient has a principal or additional diagnosis of an injury or poisoning, an external cause code should be recorded. This includes records where the main reason for the episode in hospital was a recent injury, such as a fracture, laceration or burn to any part of the body, or poisoning. It also includes a small number of episodes mainly due to complications of surgical and medical care or due to sequelae present a year or more after injury, or other late effects. Records are included whether caused unintentionally ('accidents') or intentionally (intentional self-harm, or assault). Records where intent was not determined are also included. Throughout this report, records with a principal diagnosis of S00–T75, T79 were included in the totals of tables unless otherwise indicated, even if they lack an external cause or have a first reported external cause code of complications of surgical and medical care or codes describing the sequelae of external causes. These records meet the principal diagnosis definition of community injury but lack a meaningful external cause.

Injury cases are estimated as the number of injury separations, less those records where the mode of admission was 'inward transfer'. Inward transfers are omitted to reduce over-counting of injury cases.

Box 1.2: Aboriginal and Torres Strait Islander reporting

In this report, the terms 'Aboriginal and Torres Strait Islander people' and 'Indigenous people' are used to refer to children and young people identified as such in Australian hospital separations data and population data collections. Other Australians includes separations for which the Indigenous status was not reported as well as those for persons identified as not of Aboriginal or Torres Strait Islander origin.

The report on the quality of Indigenous identification in hospital separations data, released in May 2013 (AIHW 2013b), found that an estimated 88% of Indigenous patients were correctly identified in Australian public hospital admission records in 2011–12. The report recommends that data for all jurisdictions are used in national analyses of Indigenous admitted patient care from 2010–11 onwards.

In 2011–12, it was estimated that 88% of Indigenous patients were correctly identified in Australian public hospital admitted patient data (AIHW 2013b). The overall quality of the data provided for Indigenous status in 2011–12 and 2012–13 varied between states and territories. For additional information, see Appendix A.

Box 1.3: Ascertainment of intentional self-harm

According to inclusion notes in ICD-10-AM, cases should be assigned codes in the range X60–X84 if they are purposely self-inflicted poisoning or injury, suicide, or attempted suicide (NCCCH 2010). Determining whether an injury was due to intentional self-harm is not always straightforward. Cases may appear to be intentional self-harm, but inconclusiveness of available information may preclude them being coded as such. In this situation, the case can be coded to an ‘undetermined intent’ category (for example, Y30 *Falling, jumping or pushed from a high place, undetermined intent* or Y32 *Crashing of motor vehicle, undetermined intent*). It is possible that through the coding process, some types of injury may be more readily attributed to intentional self-harm than others; for example, ‘intentional self-harm by hanging’ as opposed to ‘falling from a building structure’ (for example, W13, out of a window, bridge or roof).

Some patients may choose not to disclose that their injuries resulted from intentional self-harm, or may be unable to do so due to the nature of the injuries, or because their motives were ambiguous.

In very young children, ascertaining whether an injury was due to intentional self-harm can be difficult and may involve a parent or caregiver’s perception of the intent. Ability to form an intention to inflict self-harm and to understand the implications of doing so requires a degree of maturation that is absent in infancy and early childhood. It is not possible to differentiate between acts of self-injury and acts of self-harm with suicidal intent within the NHMD, but it is likely that an unknown proportion of cases of intentional self-harm in late childhood and at older ages are self-injurious in nature rather than suicidal in intent. The age at which self-inflicted acts can be interpreted as intentional self-harm is not well-defined and is the subject of debate. Such sources of uncertainty about the assignment of intent limit the certainty of any estimates of intentional self-harm based on routine hospital data. For these reasons, in this report, cases of intentional self-harm are suppressed in age groups younger than 10 years.

Box 1.4: Understanding ‘drowning’

Increasingly, the term ‘drowning’ is used to refer to ‘the process of experiencing respiratory impairment from submersion/immersion in liquid’ (van Beeck et al. 2005). Framed this way, drowning can have various outcomes: death, survival with lasting consequences of greater or lesser severity, survival with transient morbidity or survival with no detectable consequences. ‘Near drowning’ is less well defined. It can refer to survived episodes of respiratory impairment from submersion/immersion in liquid. It can also refer to episodes in which a person nearly, but not quite, experiences respiratory impairment from submersion/immersion in liquid (for example, a person who becomes exhausted while swimming, but manages to reach a shore, perhaps with assistance).

Box 1.5: Remoteness of usual residence

Australia can be divided into several regions based on the distance from urban centres. In this report, remoteness area refers to the place of usual residence of the person who was admitted to hospital, assigned on the basis of the reported Statistical Local Area (SLA) of residence. In this report, data for *Inner regional* and *Outer regional* areas are combined (as *Inner and outer regional*), and *Remote* and *Very remote* areas are combined (as *Remote and very remote* areas). Additional information on remoteness of usual residence can be found in Appendix A.

Box 1.6: Changes to NHMD inclusions for 2012–13

The emergency department admission policy was changed for Victorian hospitals in 2012–13. Episodes of care delivered entirely within a designated emergency department or urgent care centre were no longer be categorised as an admission regardless of the amount of time spent in the hospital. This narrowing of the categorisation has had the effect of reducing the number of admissions recorded in Victoria for the 2012–13 financial year. According to *Australian Hospital Statistics 2012–13*, there was a decrease of about 140,000 admissions in emergency departments, with a flow-on effect to admitted patients (AIHW 2014).

Structure of this report

Chapter 2 provides an overview of injury among Aboriginal and Torres Strait Islander children and young people in Australia. The information provided includes number of injury cases, external causes of injury and remoteness of the patient's area of usual residence, by sex and age group. Comparisons are provided with other Australian children and young people throughout the report.

Chapter 3 provides similar information to Chapter 2, but for specific age groups. Chapter 3 also contains information on the most common external causes of injury in each age group.

Appendix A: Data issues provides summary information on the NHMD, notes on the presentation of data, the population estimates used to calculate population rates, analysis methods, and information on data quality.

Appendix B: Additional tables consists of tables underpinning selected figures presented in Chapter 2.

2 Overview

There were 20,335 hospital separations due to injury and poisoning for Aboriginal and Torres Strait Islander children and young people during 2011–13. Excluding transfers from other acute hospitals results in an estimated 18,537 injury cases (Table 2.1). Indigenous children and young people make up about 7% of the total number of children and young people hospitalised for injury in Australia over the 2-year period (Pointer 2015).

Age and sex

More Indigenous males were hospitalised compared with Indigenous females (1.5:1) in the 2-year period (Table 2.1). The age-standardised rate of injury was also higher among Indigenous males (2,982 cases per 100,000 population) compared with Indigenous females (2,023). The rate of injury for Indigenous children and young people was one-and-a-half times that of other Australian children and young people, and Indigenous females had rates of injury almost twice those of other Australian females.

Table 2.1: Key indicators for injury, by Indigenous status, 2011–13

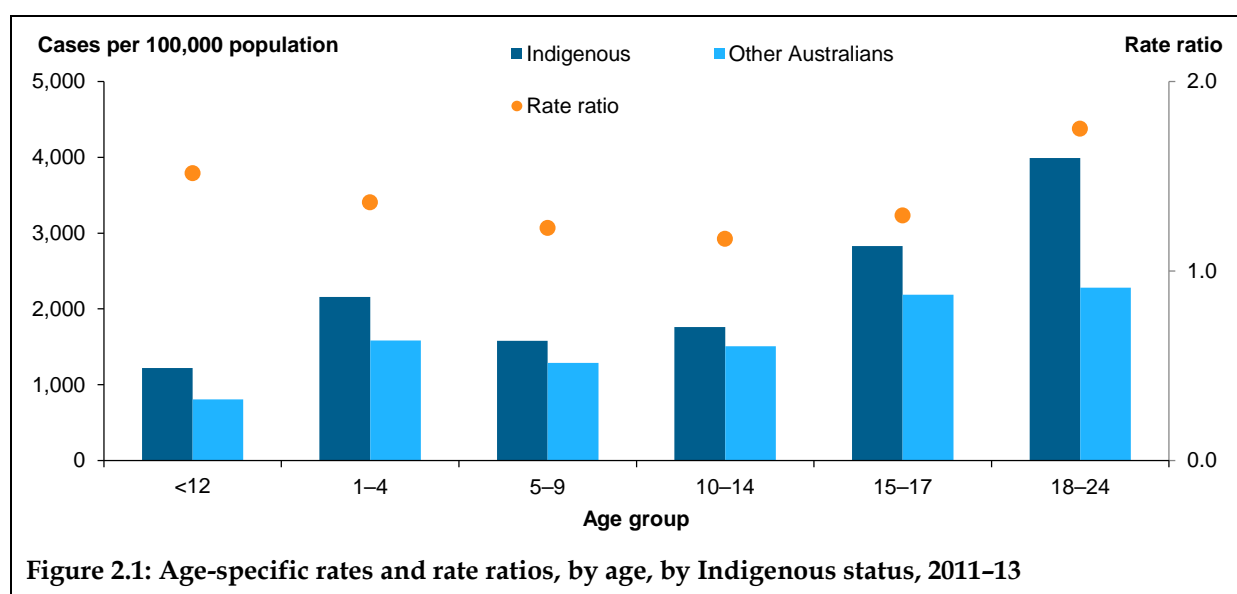
Indicators	Indigenous			Other Australians		
	Males	Females	Persons	Males	Females	Persons
Separations from hospital due to injury	12,450	7,885	20,335	170,465	86,700	257,168
Injury cases	11,250	7,287	18,537	159,100	81,401	240,504
Age-standardised rate/100,000 population	2,982	2,023	2,514	2,245	1,220	1,745

Other than in infancy, there were many more young Indigenous males than Indigenous females hospitalised as a result of an injury (Table 2.2). The largest proportion of hospitalised injuries occurred in 18–24 year old Indigenous young people and this was true for Indigenous men (39%) and Indigenous women (41%).

Table 2.2: Injury cases, by age and sex, by Indigenous status, 2011–13

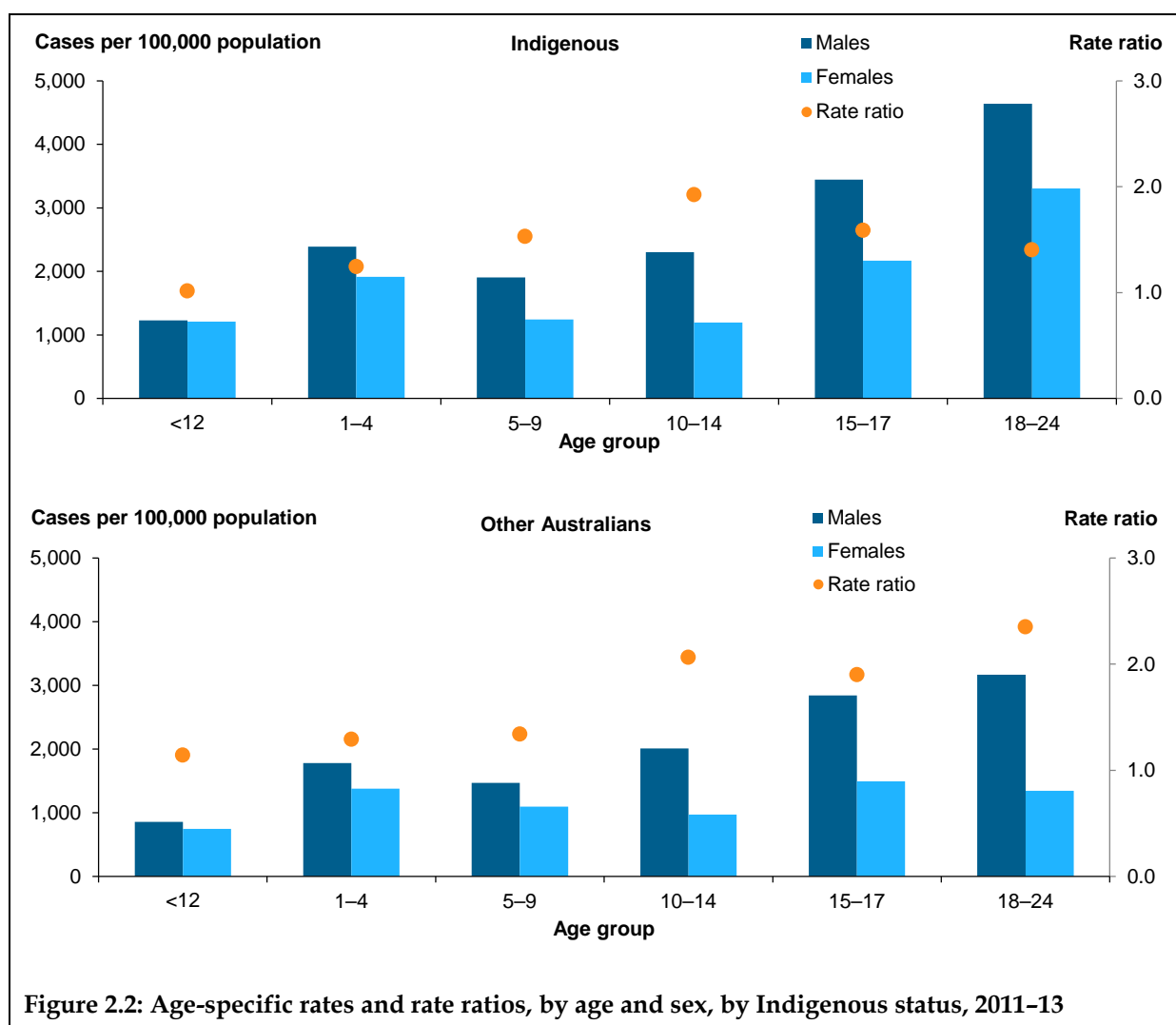
Age group	Indigenous			Other Australians		
	Males	Females	Persons	Males	Females	Persons
<12 months	210	198	408	2,385	1,971	4,356
1–4	1,617	1,247	2,864	19,637	14,399	34,036
5–9	1,562	983	2,545	19,571	13,803	33,374
10–14	1,837	918	2,755	26,562	12,226	38,788
15–17	1,634	969	2,603	23,432	11,663	35,095
18–24	4,390	2,972	7,362	67,513	27,339	94,855
Total	11,250	7,287	18,537	159,100	81,401	240,504

With respect to age, rates of injury among Indigenous children and young people tended to be higher at older ages, with the highest rate of injury (3,988 cases per 100,000 population) in 18–24 year olds and the lowest in infants (1,222) (Figure 2.1). The exception to this was seen in Indigenous 1–4 year olds who had the third highest rates of injury over the 2-year period. In comparison to other Australians, Indigenous children and young people had higher rates of injury in each age group. The largest relative difference in rates was seen at 18–24 years, where Indigenous young people’s rate of injury was almost 4,000 cases per 100,000 compared with 2,280 for other Australians.



For Indigenous boys and young men, rates of injury tended to be higher at older ages, with the highest rate of injury (4,638 cases per 100,000 population) in 18–24 year olds and the lowest in infants (1,240). Indigenous girls and young women had a different distribution of rates of injury by age. While the highest rate of injury occurred in 18–24 year old women (3,305), the lowest rate occurred in Indigenous girls aged 10–14 (1,197) (Figure 2.2).

Rates of injury for Indigenous males were higher than Indigenous females in each age group, although the difference at infancy was minor (Figure 2.2). The greatest difference in rates of injury between Indigenous boys and girls occurred at 10–14 years, where Indigenous boys (2,304 cases per 100,000 population) had rates twice as high as Indigenous girls (1,197).



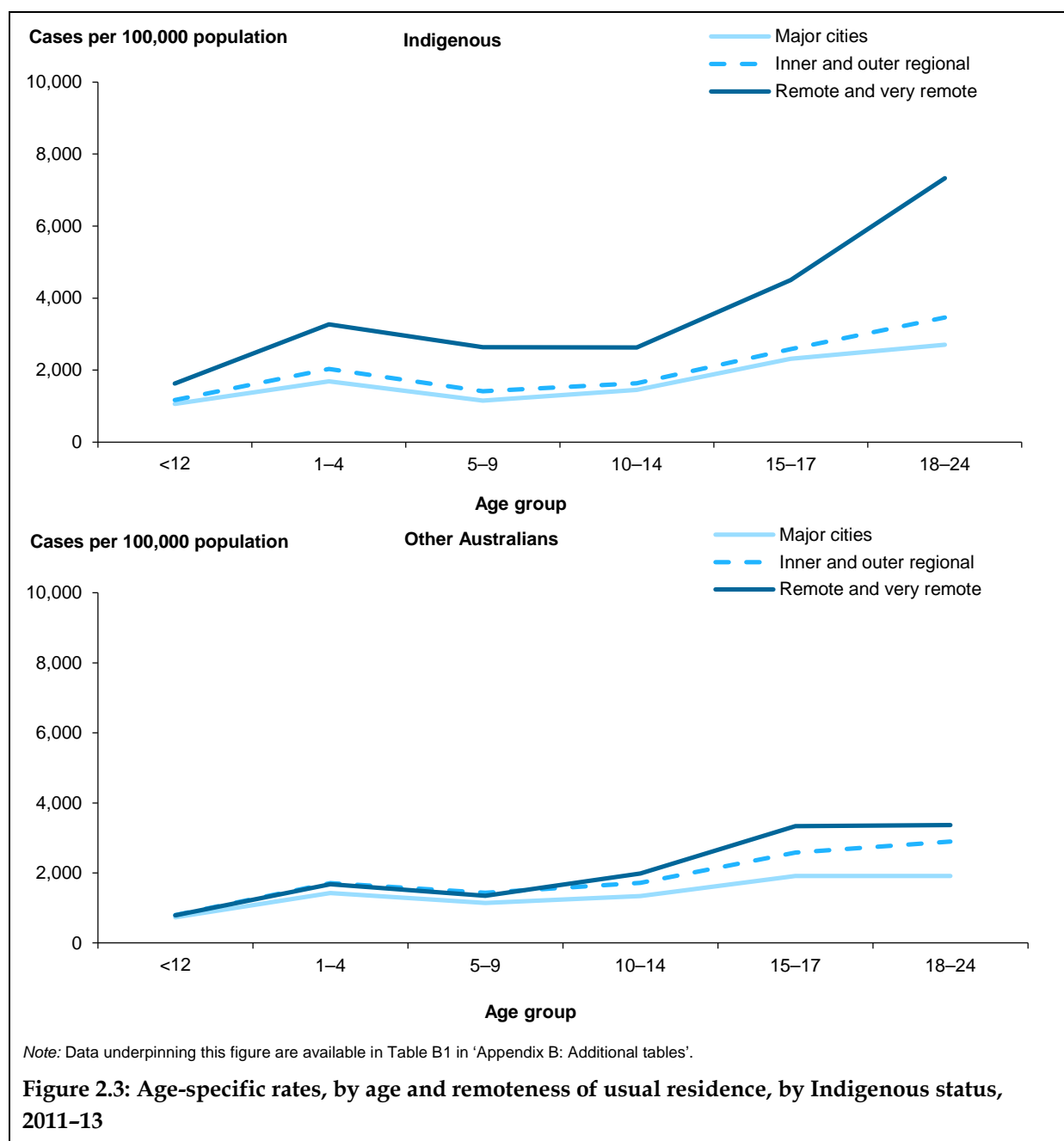
Remoteness of usual residence

The proportion of children and young people hospitalised as a result of an injury who were Indigenous increased with increasing remoteness (Table 2.3). In *Remote and very remote* areas over half (51%) of the children and young people hospitalised due to injury were Indigenous despite making up just 36% of the overall population of Indigenous children and young people in those two areas (ABS 2014).

Table 2.3: Injury cases for children and young people, by sex and remoteness of usual residence, by Indigenous status, 2011-13

Remoteness of usual residence	Indigenous			Other Australians		
	Males	Females	Persons	Males	Females	Persons
Major cities	3,136	1,848	4,984	102,852	53,585	156,440
Inner and outer regional	4,660	2,741	7,401	49,959	24,851	74,810
Remote and very remote	3,401	2,676	6,077	4,136	1,910	6,046
Total	11,250	7,287	18,537	159,100	81,401	240,504

The age-standardised rate of injury in Indigenous children and young people increased with increasing remoteness in each age group (Figure 2.3). The highest rate of injury occurred in 18–24 year old Indigenous young people living in *Remote and very remote* areas (7,327 cases per 100,000 population). The relationship between rate of injury and remoteness was also evident among other Australians (Figure 2.3), with high rates in *Remote and very remote* areas particularly for age groups from about 10–14 years.



Causes of injury

During 2011–13, the most common of the specific ICD-10-AM external cause groups for injury among children and young people was falls and this was true for both Indigenous (24%) and other Australian (29%) children and young people (Table 2.4). Another common specific cause of injuries among Indigenous children and young people was assault (17%). The rate of assault injury among Indigenous children and young people (457 cases per 100,000 population) was 6 times higher than that of other Australians (79).

‘Other unintentional causes’ of injury were also common for both Indigenous (32%) and other Australian (38%) children and young people. ‘Other unintentional causes’ cover a broad range of external cause categories:

- *Exposure to inanimate mechanical forces* (W20–W49)
- *Exposure to animate mechanical forces* (W50–W64)
- *Other accidental threats to breathing* (W75–W84)
- *Exposure to electric current, radiation and extreme ambient air temperature and pressure* (W85–W99)
- *Contact with venomous animals and plants* (X20–X29)
- *Exposure to forces of nature* (X30–X39)
- *Overexertion, travel and privation* (X50–X57)
- *Accidental exposure to other and unspecified factors* (X58–X59).

Table 2.4: Cases and age-standardised rates for specific external cause groups, by Indigenous status, 2011–13

External cause	Indigenous		Other Australians		Rate ratio
	Number	Rate	Number	Rate	
Unintentional injuries					
Transport crashes	2,210	303.2	35,529	260.9	1.2
Drowning and submersion	45	5.4	602	4.4	1.2
Poisoning, pharmaceuticals	396	50.9	4,179	30.7	1.7
Poisoning, other substances	149	18.8	1,429	10.5	1.8
Falls	4,360	565.0	70,553	518.1	1.1
Thermal causes	669	83.7	4,839	35.5	2.4
Other unintentional causes	5,861	789.4	92,447	678.8	1.2
Intentional injuries					
Intentional self-harm	1,386	198.4	16,989	124.8	1.6
Assault	3,153	456.6	10,718	78.7	5.8
Undetermined intent	288	39.9	2,920	21.4	1.9
Total ^(a)	18,537	2,514	240,504	1,766	1.4

(a) Includes other external causes of injury and not reported.

Assaults were, by far, the external cause with the greatest disparity between Indigenous and other Australians for both males and females (Table 2.5). The rate of assault injury among Indigenous boys and young men (428 cases per 100,000 population) was almost 4 times

higher than that of other Australian males (118), while the rate of assault injury among Indigenous girls and young women (486) was more than 17 times higher than their other Australian counterparts (28).

Table 2.5: Age-standardised rates and counts of major external cause groups, by Indigenous status and sex, 2011–13

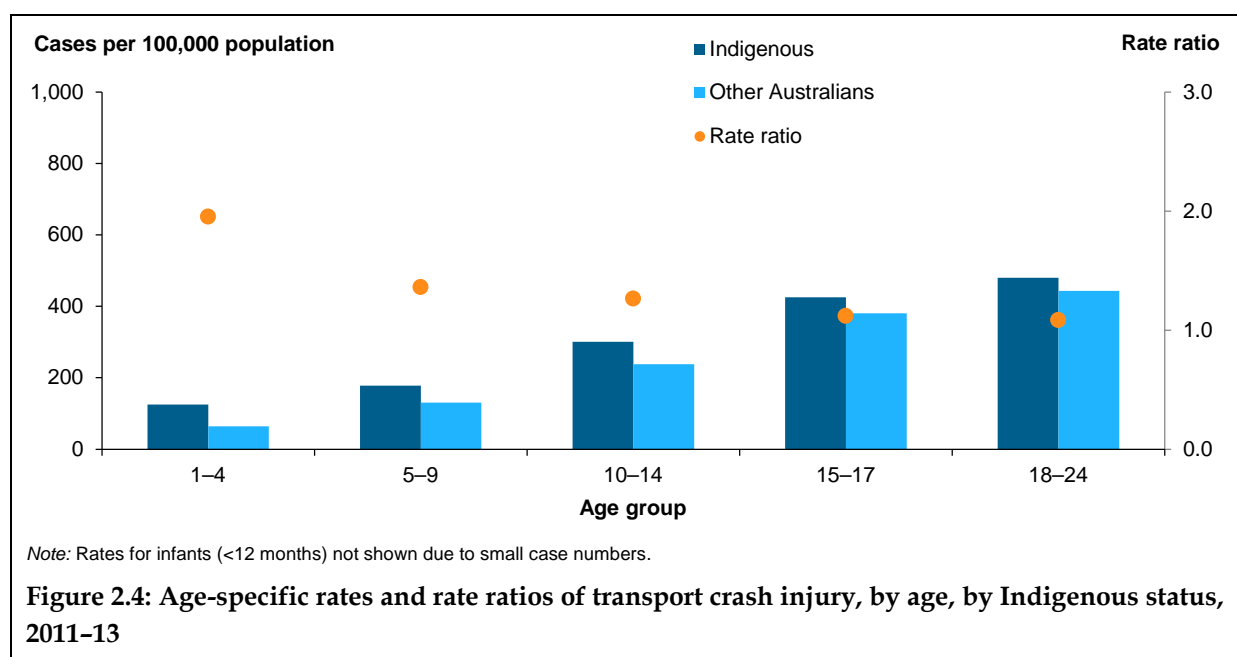
External cause	Indigenous		Other Australians		Rate ratio
	Number	Rate	Number	Rate	
Males					
Unintentional injuries					
Transport crashes	1,559	419	24,648	345	1.2
Drowning and submersion	20	5	399	6	0.8
Poisoning, pharmaceuticals	197	49	2,087	29	1.7
Poisoning, other substances	88	22	877	12	1.8
Falls	2,750	700	45,704	665	1.1
Thermal causes	390	96	3,141	44	2.2
Other unintentional causes	4,077	1,082	67,221	941	1.2
Intentional injuries					
Intentional self-harm	475	135	4,547	62	2.2
Assault	1,519	428	8,791	118	3.6
Undetermined intent	162	43	1,504	21	2.1
Total ^(a)	11,250	2,982	159,100	2,245	1.3
Females					
Unintentional injuries					
Transport crashes	651	182	10,881	160	1.1
Drowning and submersion	25	6	203	3	2.0
Poisoning, pharmaceuticals	199	53	2,092	31	1.7
Poisoning, other substances	61	16	552	8	2.0
Falls	1,610	424	24,849	382	1.1
Thermal causes	279	71	1,698	25	2.8
Other unintentional causes	1,784	482	25,226	378	1.3
Intentional injuries					
Intentional self-harm	911	265	12,439	182	1.5
Assault	1,634	486	1,927	28	17.6
Undetermined intent	126	36	1,416	21	1.8
Total ^(a)	7,287	2,023	81,401	1,220	1.7

(a) Includes other external causes of injury and not reported.

The causes of injury vary enormously by developmental age. Figures 2.4 to 2.19 show age-specific rates by age group for each major external cause group and by remoteness of usual residence. Additional information about specific types of common external causes of injury for each age group can be found in the next chapter.

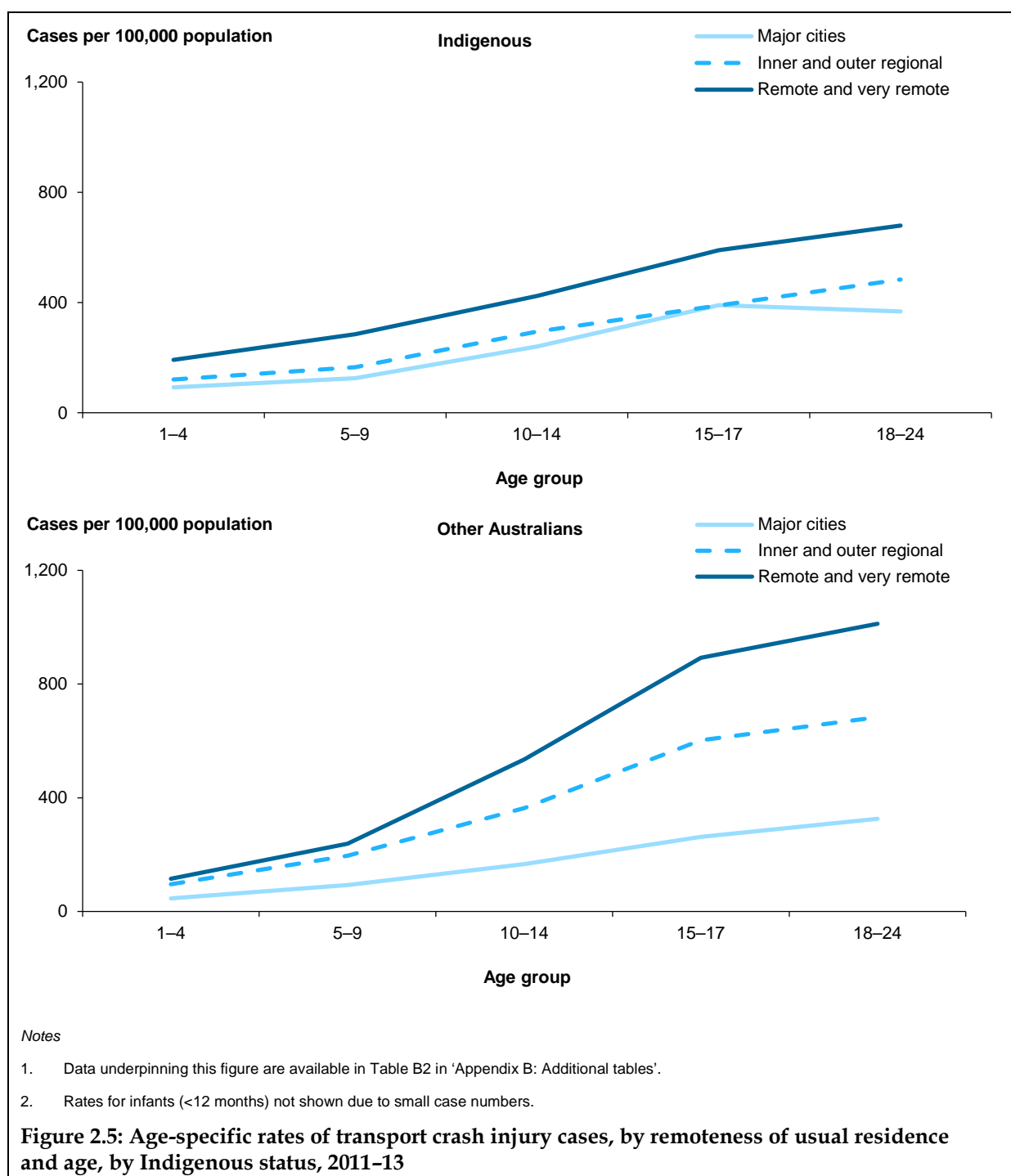
Transport crash injury

Rates of transport crash injury were higher in each successive age category for Indigenous children and young people (Figure 2.4). Rates of transport crash injury were also higher for Indigenous children and young people compared with their other Australian counterparts in each age group. The largest relative difference was seen among 1–4 year olds with Indigenous children twice as likely to be hospitalised due to a transport crash injury.



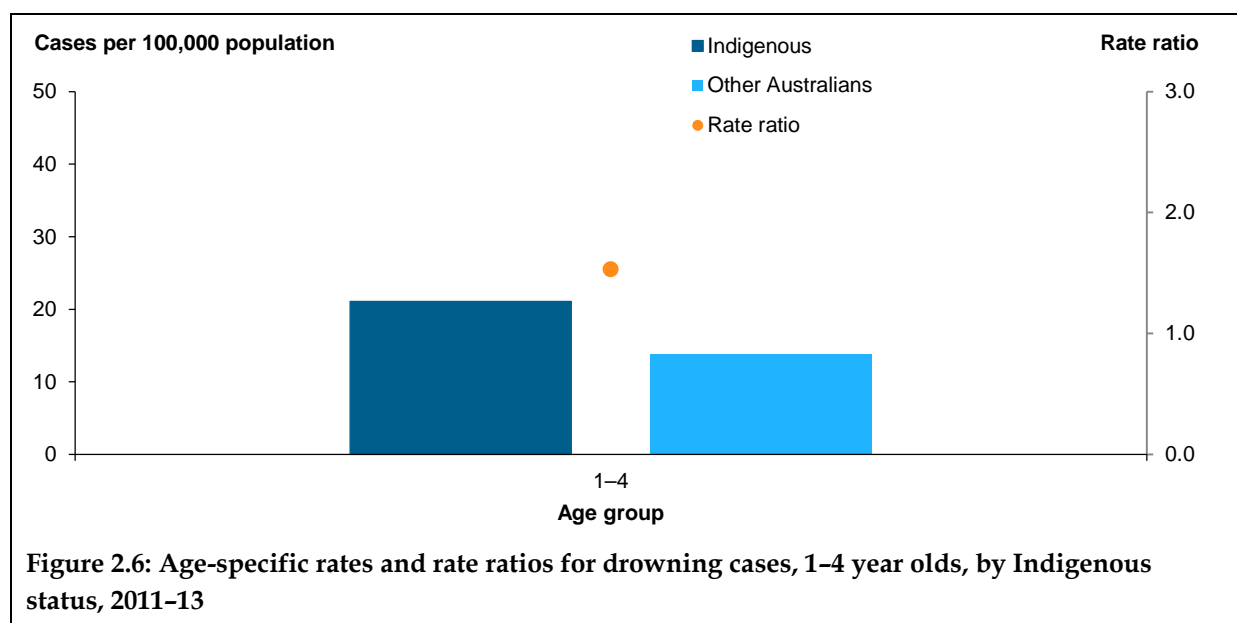
Among Indigenous children, rates of transport crash injury increased with increasing remoteness of usual residence. Rates of transport crash injury were also higher in each successive age category regardless of the place of usual residence for Indigenous children and young people, other than in 18–24 year old Indigenous young people living in *Major cities* (Figure 2.5). For older Indigenous children living in *Inner and outer regional* and *Remote and very remote* areas rates of transport crash injury were lower compared with other Australian children of the same age.

Caution should be exercised in interpreting the rates of transport crash injury among Indigenous 1–4 and 5–9 year olds by remoteness of usual residence due low case numbers (fewer than 100 cases) (see Table B2 in 'Appendix B: Additional tables').



Drowning and submersion

Information about drowning and submersion cases can be found in Box 1.4. There was a relatively small number of drowning cases among Indigenous children and young people across all age groups (45 cases in total over the 2-year period) and the following results should therefore be treated with caution. The majority of cases of drowning for Indigenous (80%) children occurred in the 1–4 year age group. The rate of drowning in Indigenous children aged 1–4 was 21 cases per 100,000 population compared with 14 in other Australian children (Figure 2.6).

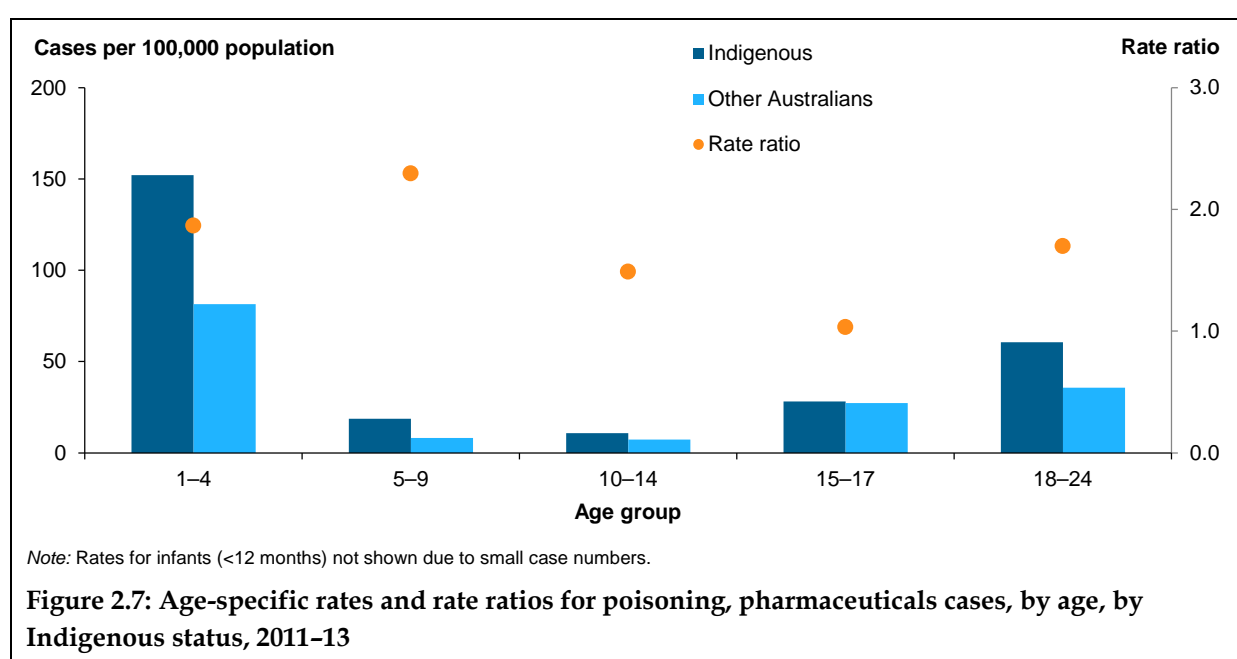


Among Indigenous children aged 1–4, 23 of the 36 drowning cases occurred in *Inner and outer regional* areas. Due to the extremely small number of cases among Indigenous children and young people, further comparisons were not made. Information about the number and rate of drowning cases in Indigenous and other Australian children and young people is available in Table B3 in 'Appendix B: Additional tables'.

Poisoning by pharmaceuticals

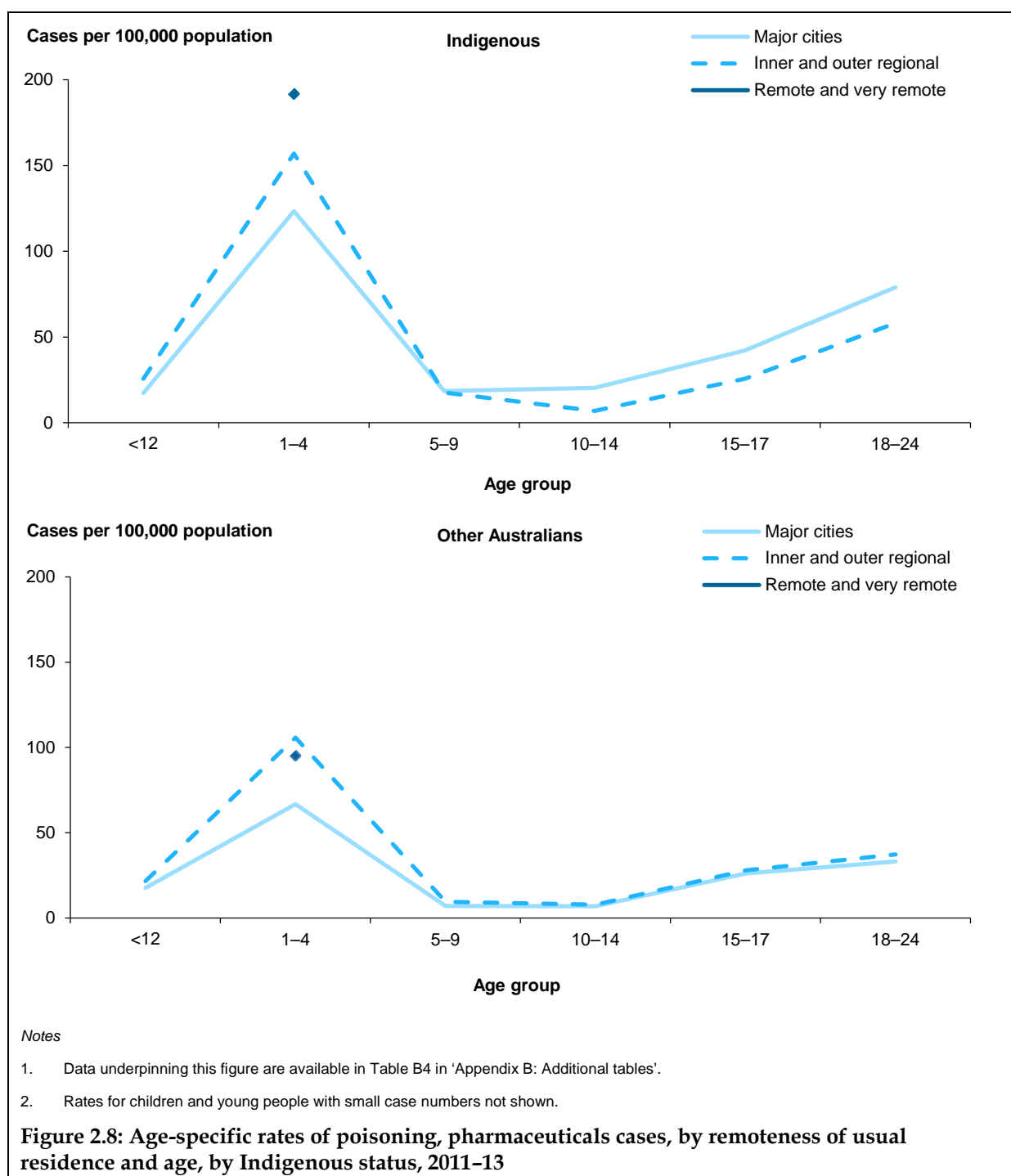
Unintentional poisoning by a drug, medicament or pharmaceutical includes drugs given or taken in error or inadvertently, and accidental over-dosage. The majority of cases of poisoning by drugs, medicaments and biological substances for Indigenous (51%) children occurred in the 1–4 year age group (Figure 2.7). The second highest rate of poisoning by pharmaceuticals cases occurred in 18–24 year old Indigenous young people. Rates of poisoning by pharmaceuticals were higher in Indigenous than other Australian children and young people in all age categories other than 15–17 years. The largest relative difference in rates between Indigenous and other Australian children (2:1) occurred in 5–9 year olds.

Caution should be exercised in interpreting the rates of poisoning by pharmaceuticals for Indigenous children in all age groups other than 1–4 and 18–24 year olds as case numbers were fewer than 100 in all instances.



Among Indigenous 1–4 year olds, rates of poisoning by pharmaceuticals increased with increasing remoteness of usual residence (Figure 2.8). The highest rate of poisoning by pharmaceuticals occurred in Indigenous children aged 1–4 years living in *Remote and very remote* areas.

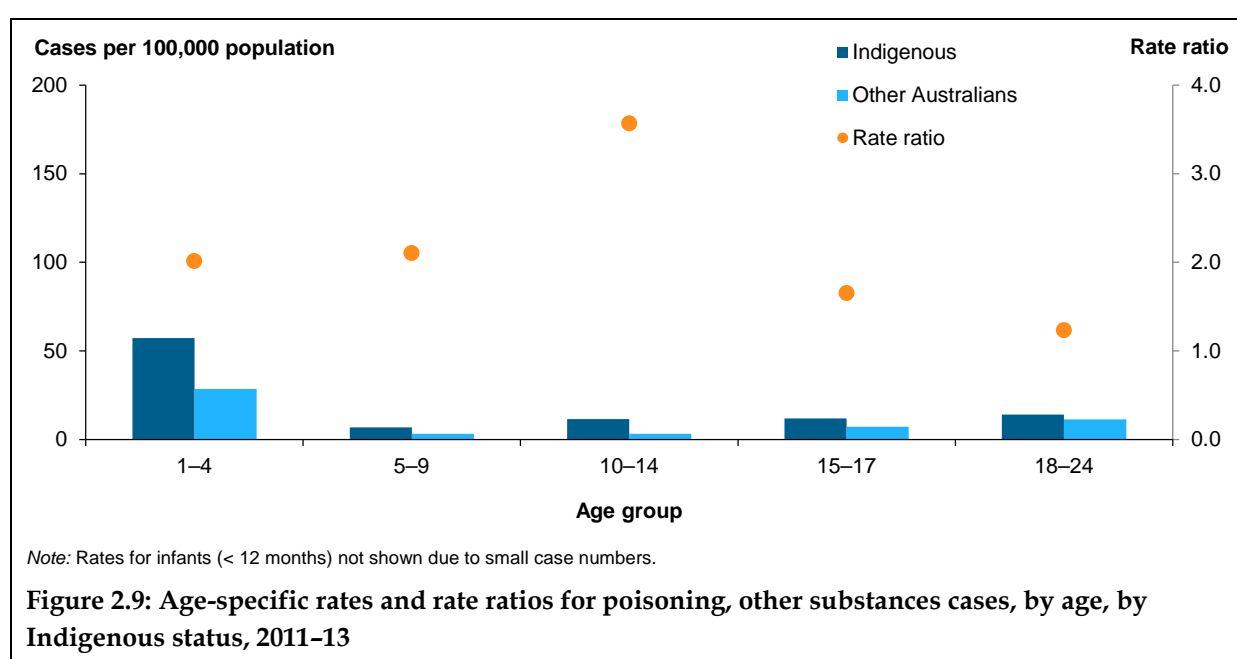
Caution should be exercised in interpreting the rates of poisoning by pharmaceuticals among Indigenous children and young people due to all combinations of age and remoteness of usual residence consisting of fewer than 100 cases (see Table B4 in 'Appendix B: Additional tables'). Small case numbers (fewer than 50 cases) among other Australians were also seen for all age groups living in *Remote and very remote* areas.



Poisoning by other substances

Poisoning by other substances includes poisoning from non-pharmaceutical substances, intentional self-poisoning by drugs, assault by drug-related poisoning, or poisoning of undetermined intent. About half of all cases of poisoning by other substances in Indigenous (51%) children and young people occurred in the 1–4 year age group (Figure 2.9). A further 17% of cases occurred in 18–24 year olds. For Indigenous children, the highest rate of poisoning by other substances occurred in 1–4 year olds followed by infants. While the rate ratio was highest among 10–14 year olds (3.6:1), there were just 18 cases of poisoning by other substances among Indigenous children in that age group.

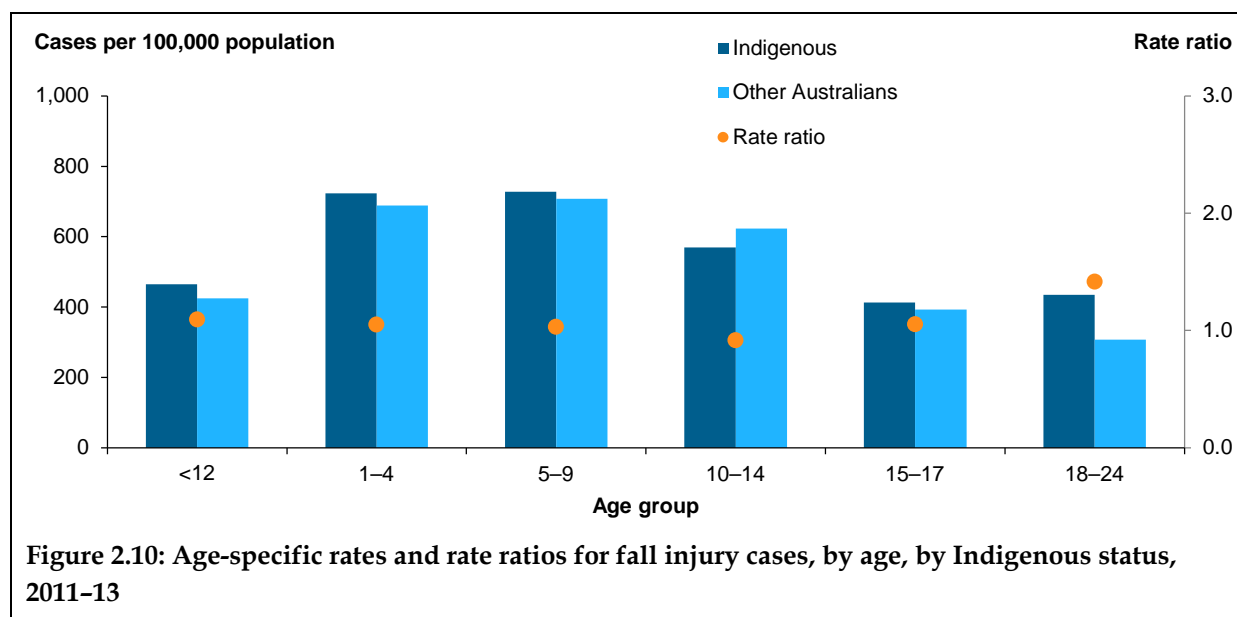
Caution should be exercised in interpreting the rates of poisoning by other substances for Indigenous children in all age groups and other Australian children 5–9 and 10–14 years old as case numbers were fewer than 100 in all instances.



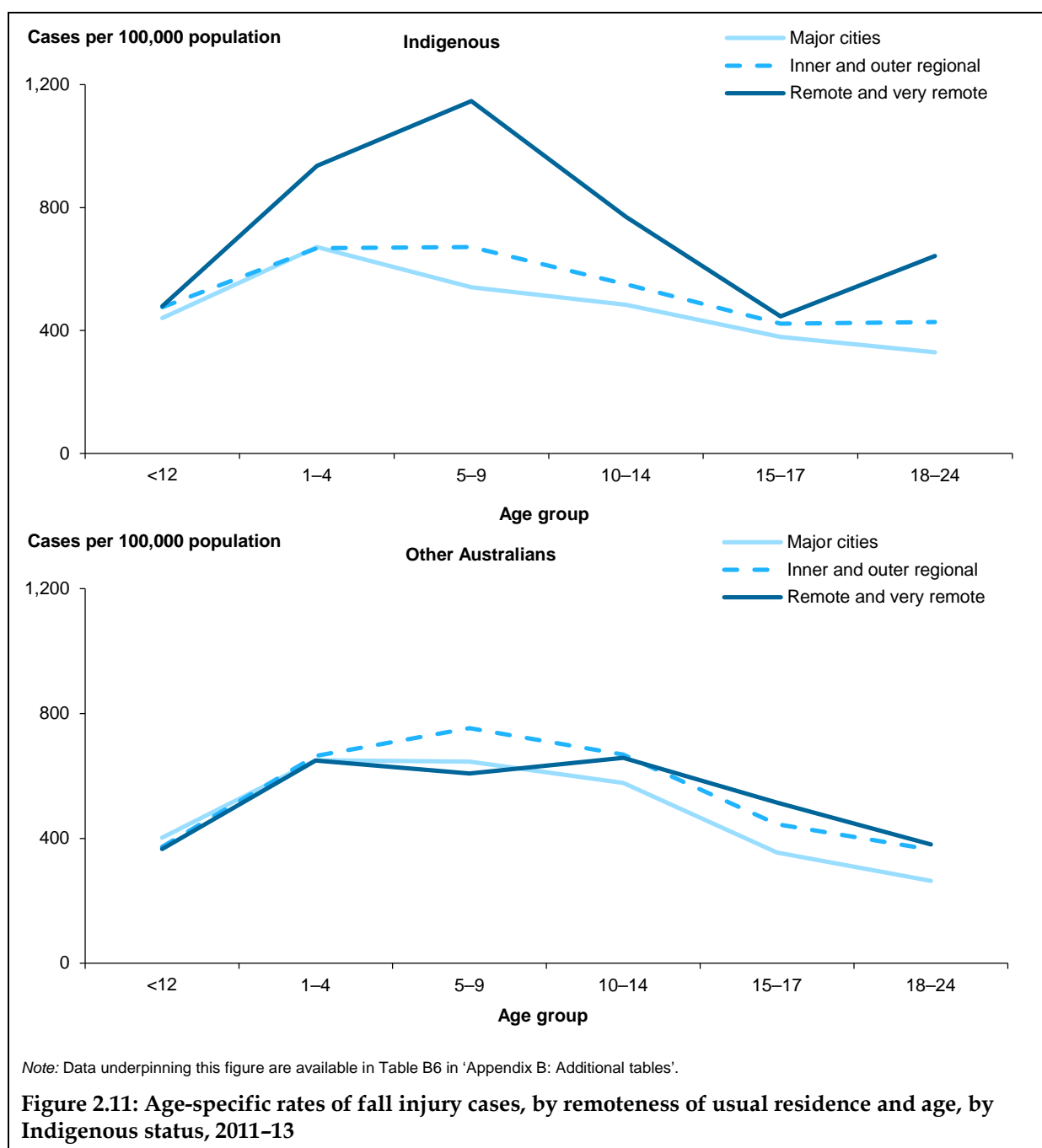
Readers are cautioned that there were very few cases of poisoning by other substances among Indigenous children and young people by place of usual residence other than in the 1–4 year age group (fewer than 50 cases in each category). Rates of poisoning by other substances were higher with increasing remoteness for Indigenous 1–4 year olds with the highest rate in Indigenous 1–4 year olds living in *Remote and very remote* areas (79 cases per 100,000 population). In comparison, the rate among 1–4 year old other Australians in *Remote and very remote* areas was 51. Additional information about the numbers and rates of cases of poisoning by other substances in Indigenous and other Australian children and young people is available in Table B5 in 'Appendix B: Additional tables'.

Fall injuries

Rates of fall injury were higher for Indigenous children and young people in all age groups other than 10–14 years (Figure 2.10). Overall, the pattern of fall injury rates by age – higher rates among 1–4 and 5–9 year olds – was similar for both Indigenous and other Australians. The largest relative difference between Indigenous and other Australians was seen in 18–24 year olds where rates of fall injury in Indigenous young people were 435 cases per 100,000 population compared with 302 for other Australian young people.



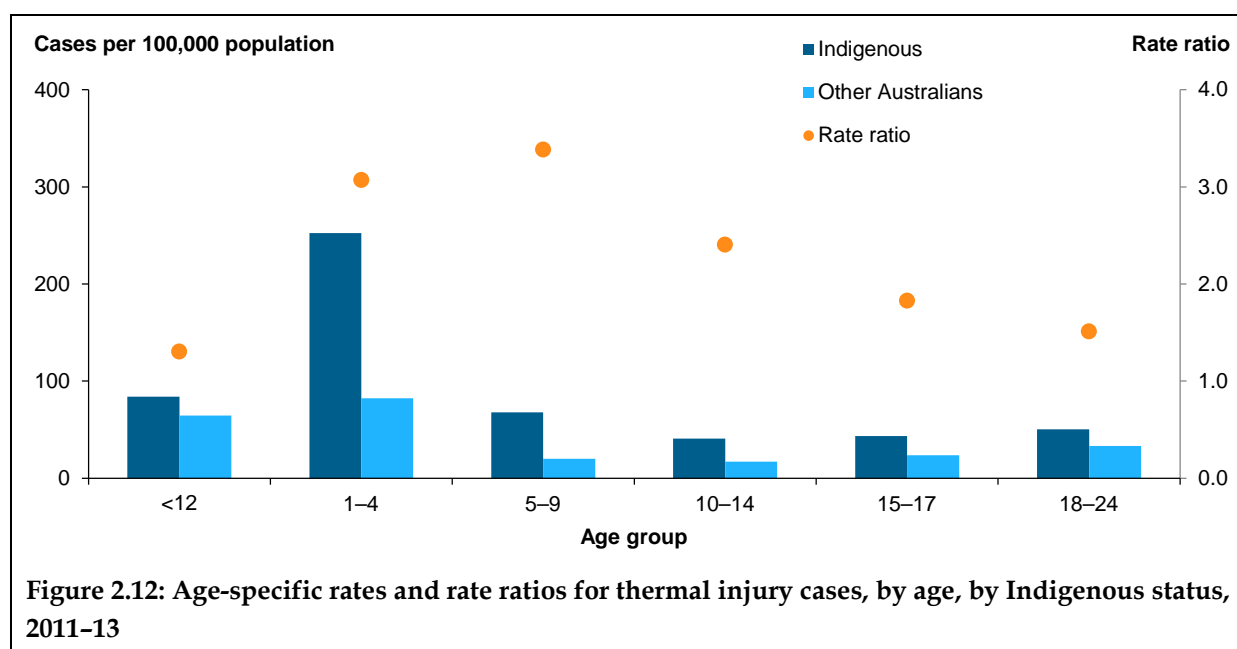
Among Indigenous children, rates of fall injury increased with increasing remoteness of usual residence (Figure 2.11). The highest rate of fall injury occurred in 5–9 year old Indigenous children living in *Remote and very remote* areas (1,146 cases per 100,000 population), almost twice that of other Australians (608). Rates of fall injury were also consistently higher in Indigenous children and young people regardless of age group compared with other Australian children and young people in *Remote and very remote* areas, the exception being in 15–17 year olds.



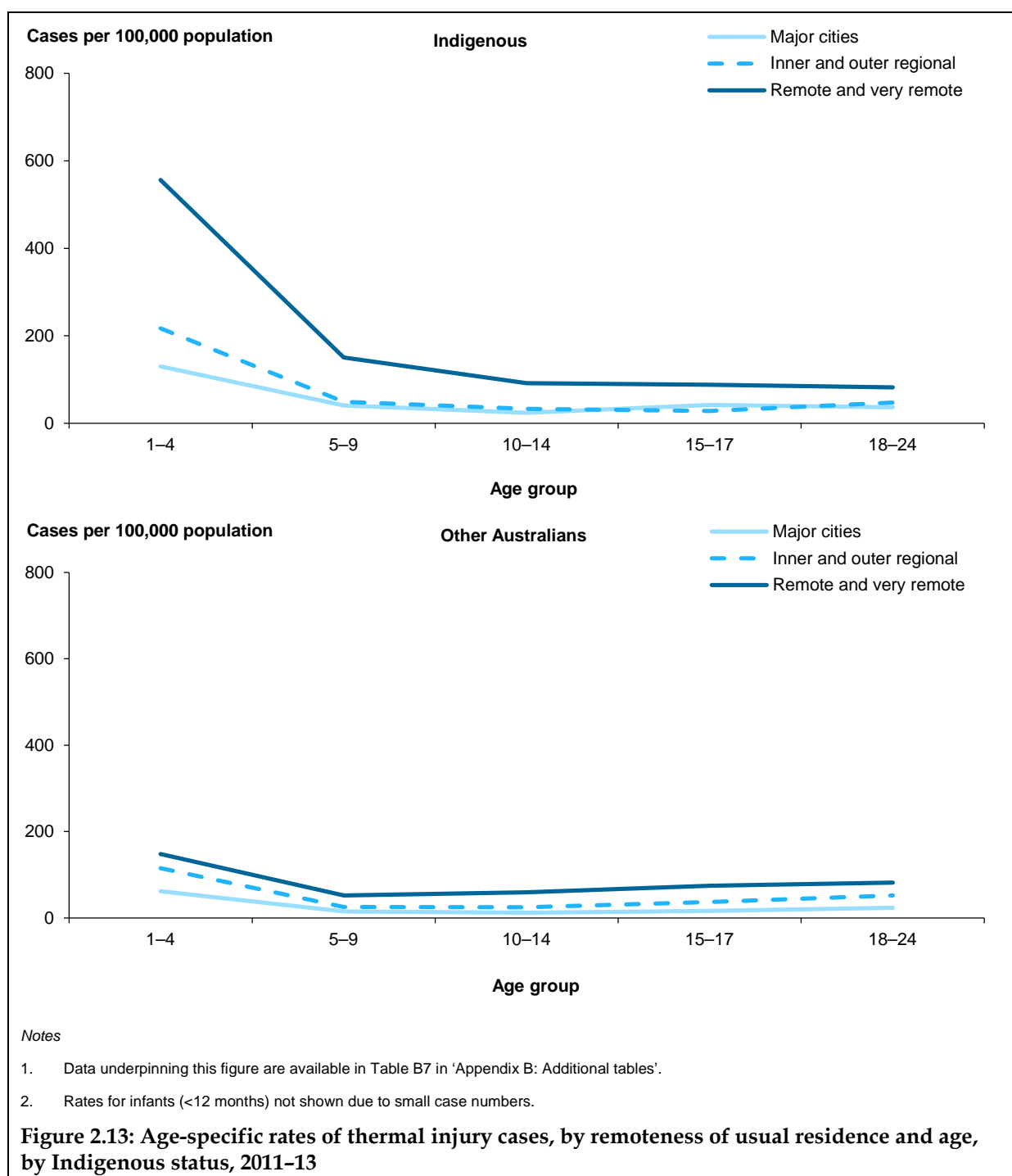
Thermal injuries

Injury cases included here are those where the first-reported external cause is unintentional *Exposure to smoke, fire and flames* (ICD-10-AM X00–X09) or *Contact with heat and hot substances* (X10–X19) – collectively these are referred to as ‘thermal causes’. Burns are the injury that usually (although not always) result from thermal causes. While the pattern of thermal injuries by age is similar for Indigenous and other Australian children and young people – both having higher rates at 1–4 years – the difference in rates between the two groups, particularly at 1–4 years, was large (Figure 2.12). The rate of thermal injury in Indigenous children aged 1–4 was 252 cases per 100,000 population compared with 82 for other Australian children. The largest relative difference between Indigenous and other Australian children occurred among 5–9 year olds, where the rate of thermal injury was over 3 times that of other Australian children.

Caution should be exercised in interpreting the rates of thermal injury for Indigenous children and young people in all age groups other than 1–4 and 5–9 years as case numbers were fewer than 100 in all instances.

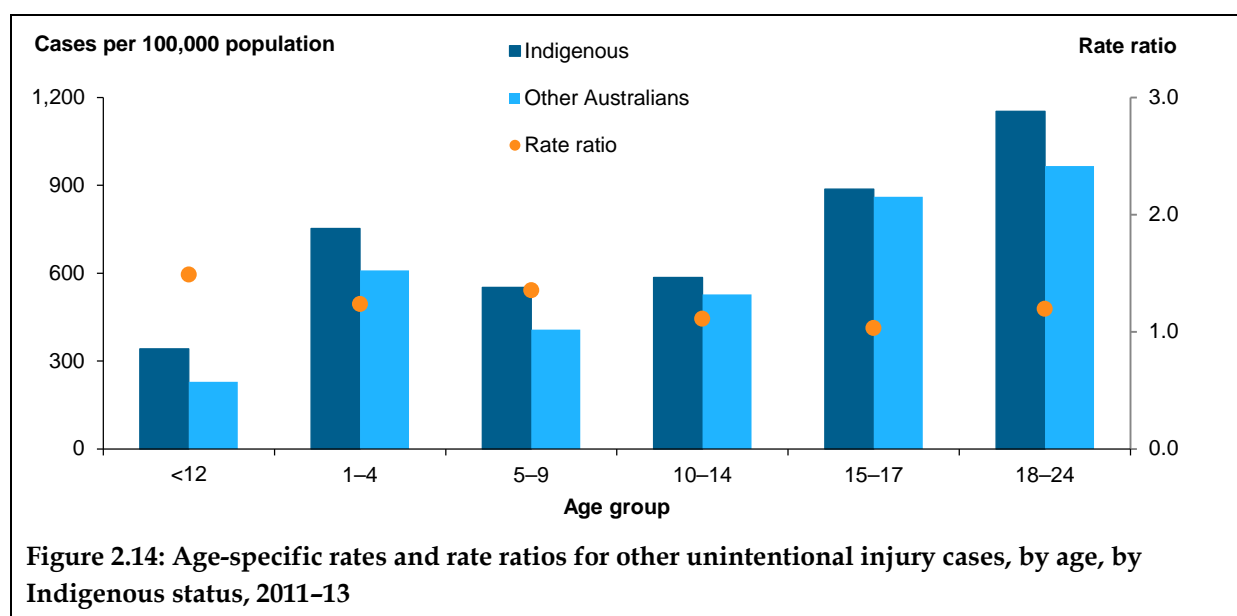


Among Indigenous children and young people, rates of thermal injury increased with increasing remoteness of usual residence (Figure 2.13). Indigenous children aged 1–4 years had the highest rates in each remoteness region and the highest rate overall by far in *Remote and very remote* areas (556 cases per 100,000 population) (Figure 2.13). The largest relative difference in rates occurred in *Remote and very remote* areas among 1–4 year olds, where the rate of thermal injury for Indigenous children (556 cases per 100,000 population) was 4 times that of other Australian children (148). Thermal injuries were also twice as high in *Major cities* and *Inner and outer regional* areas for Indigenous 1–4 year olds (130 and 62 respectively) compared with other Australians (217 and 115, respectively).

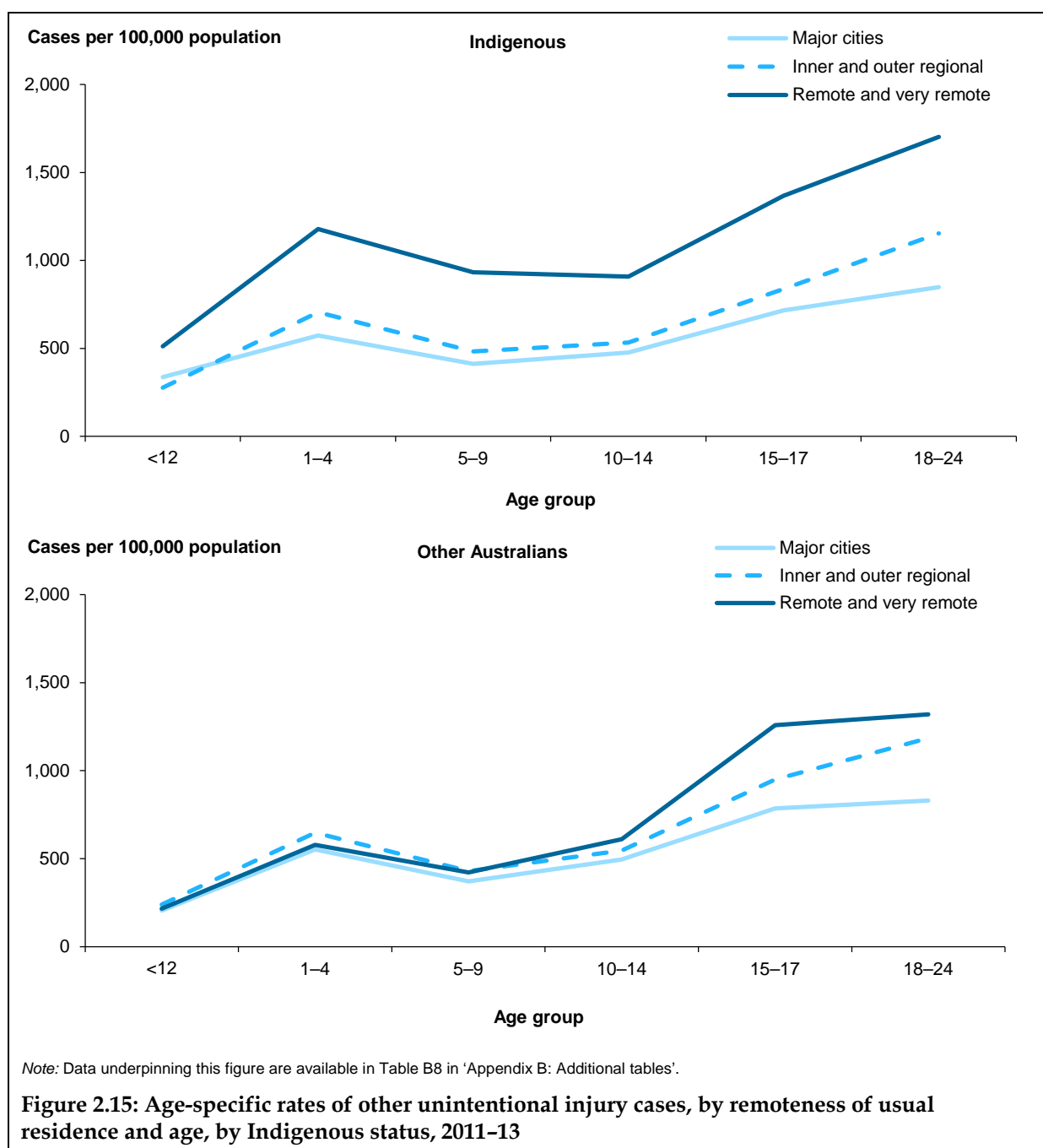


Other unintentional causes of injury

As mentioned earlier in the chapter, other unintentional causes cover a broad range of external cause categories. Rates of other unintentional injuries were generally higher in each successive age category for Indigenous children and young people (Figure 2.14). Rates were higher for Indigenous children and young people compared with their other Australian counterparts in all age groups.

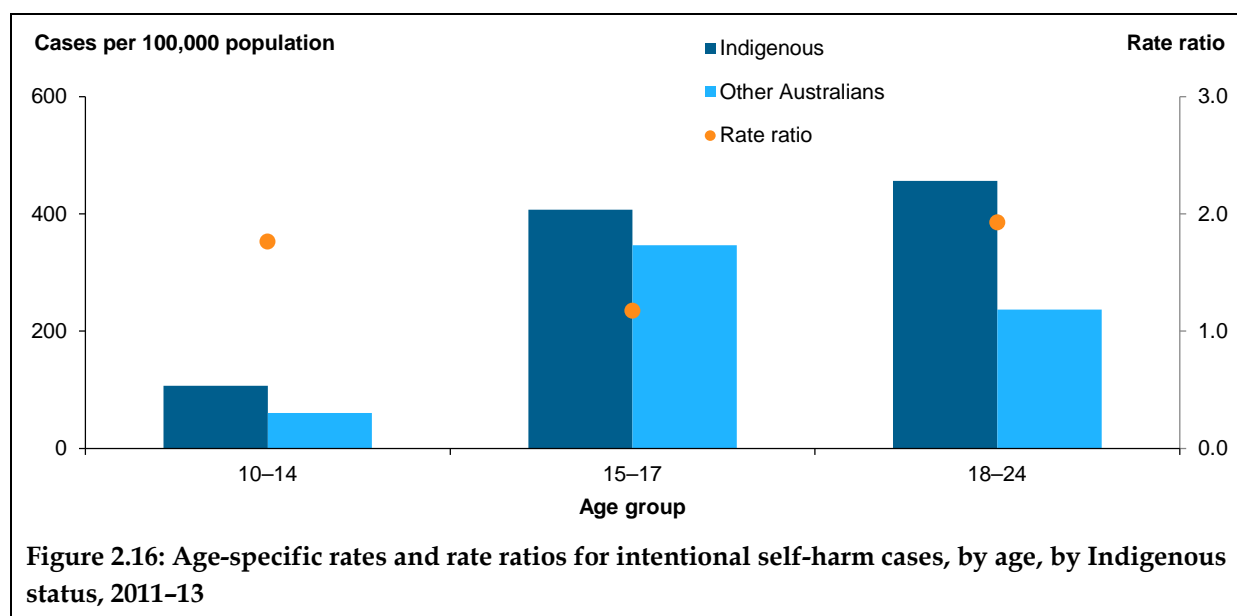


Among Indigenous children and young people, rates of other unintentional injury increased with increasing remoteness of usual residence (Figure 2.15). The highest rate of injury due to other unintentional causes occurred in *Remote and very remote* areas among 18–24 year old Indigenous young people (1,702 cases per 100,000 population). The largest relative difference in rates between Indigenous and other Australian children (2.4:1) occurred in infants living in *Remote and very remote* areas where the rate of other unintentional injuries was 511 cases per 100,000 population for Indigenous infants compared with 216 in other Australians.



Intentional self-harm injuries

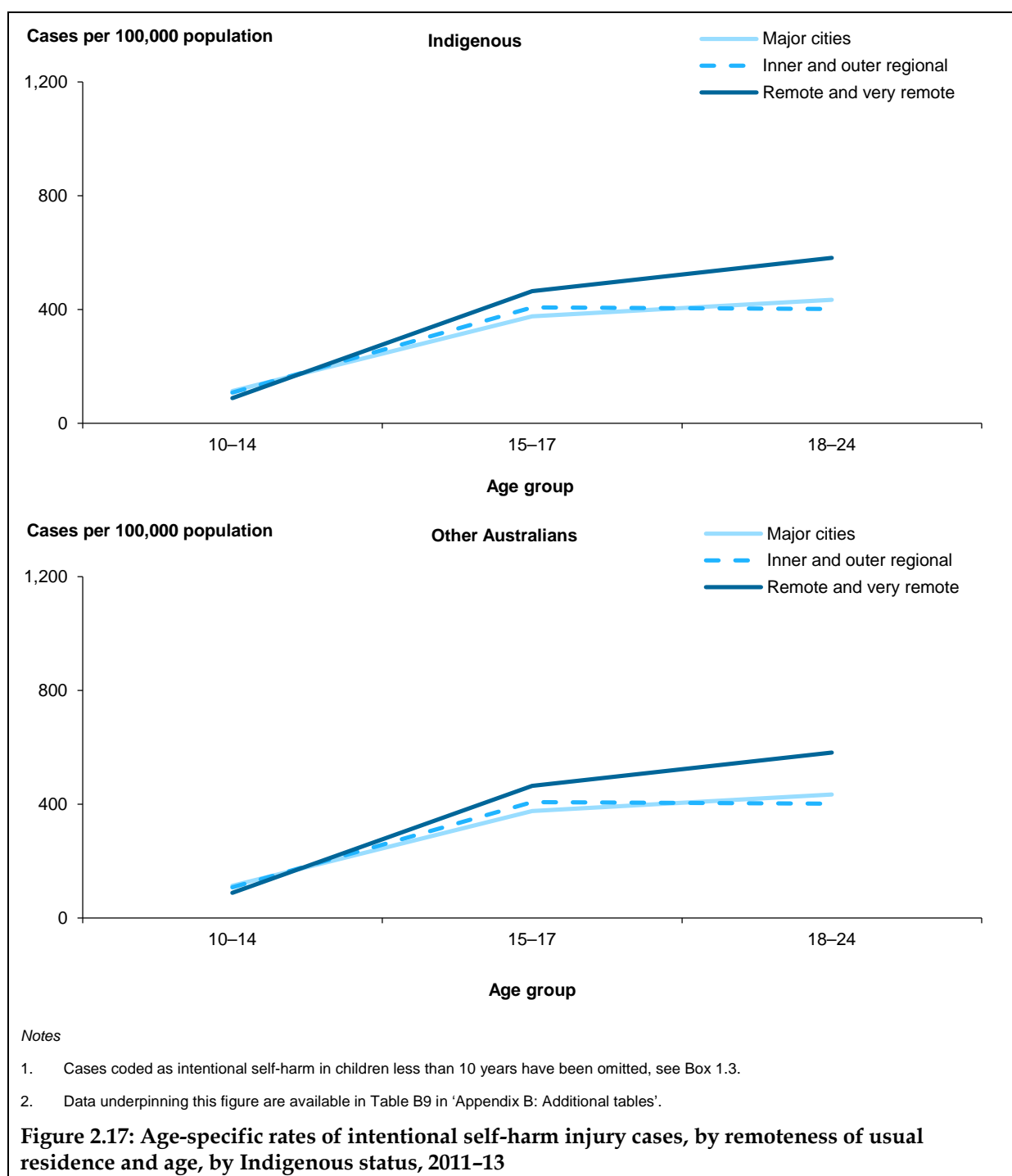
This section includes suicide and attempts to suicide, as well as cases where people have intentionally hurt themselves, but not necessarily with the intention of suicide – for example, acts of self-mutilation. Cases are restricted to those children aged 10 and over (see Box 1.3). For Indigenous children and young people, rates of intentional self-harm were higher in each successive age group from 10–14 years (Figure 2.16). The largest relative difference in rates between by Indigenous status (2.0:1) occurred among 18–24 year olds, where rates of intentional self-harm among Indigenous 18–24 year olds were 456 cases per 100,000 population compared with 233 for other Australians.



Unlike other external causes of injury, rates of intentional self-harm among Indigenous children and young people did not increase consistently with increasing remoteness (Figure 2.17). The rate of intentional self-harm was highest (582 cases per 100,000 population) among 18–24 year old Indigenous young people in *Remote and very remote* areas followed by 18–24 year olds living in *Major cities* (465).

The largest relative difference in rates between Indigenous and other Australian young people (3:1) occurred in 18–24 year olds living in *Remote and very remote* areas where the rate of intentional self-harm was 582 cases per 100,000 population for Indigenous 18–24 year olds compared with 192 in other Australians.

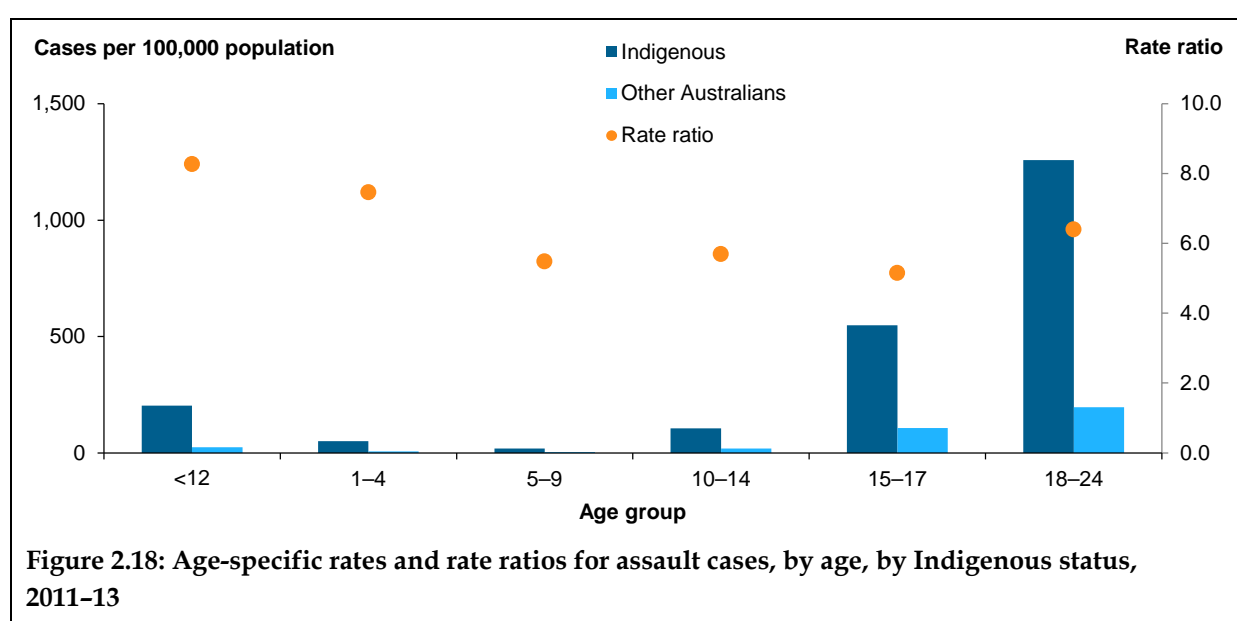
Caution should be exercised in interpreting the rates of intentional self-harm among 10–14 and 15–17 year olds by remoteness of usual residence due to half of all combinations of age and remoteness of usual residence consisting of fewer than 100 cases (see Table B9 in ‘Appendix B: Additional tables’).



Assault injuries

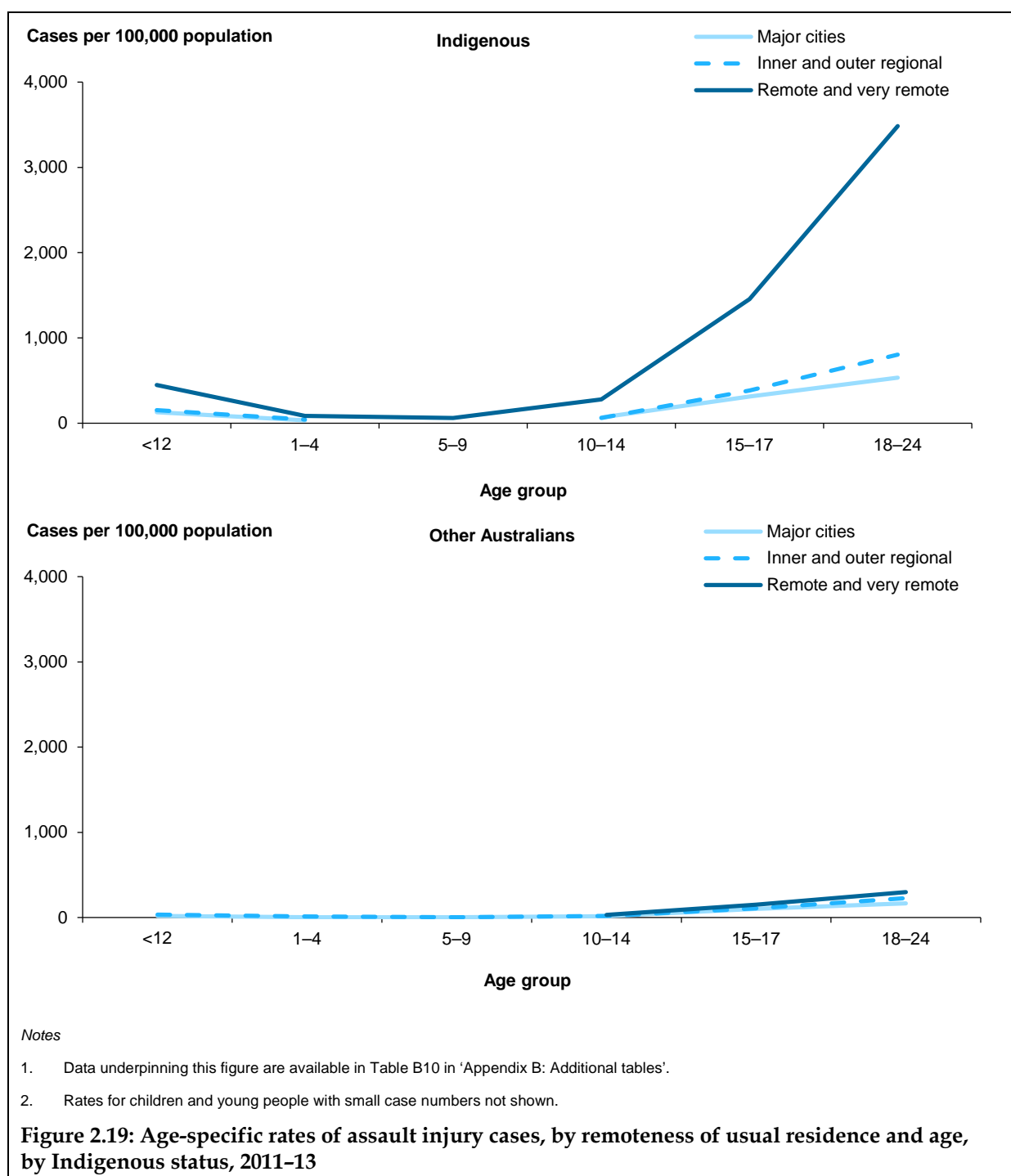
For Indigenous children and young people, rates of assault injury were smaller in each successive age category from infancy until 5–9 years (Figure 2.18). From about 10–14 years, rates of assault were higher in each age category. In 18–24 year olds, the rate was 1,257 cases per 100,000 population. The pattern of higher rates in older age groups was similar for other Australians although the actual rates of assault injury were far lower for other Australians. The largest relative difference in rates occurred in infants, where Indigenous infants were hospitalised as a result of an assault at over 8 times (8.7:1) the rate of other Australian infants.

Caution should be exercised in interpreting the rates of assault for Indigenous children in the three youngest age groups as case numbers were fewer than 100 in all instances (68, 66 and 29, respectively).



Among Indigenous children and young people, rates of assault injury were highest in *Remote and very remote* areas (Figure 2.19). For 15–17- and 18–24 year old Indigenous young people, rates of assault injury were 4.7 and 6.5 times higher in *Remote and very remote* areas compared with *Major cities*.

Caution should be exercised in interpreting the rates of assault among the three youngest age groups by remoteness of usual residence for both Indigenous and other Australian children due to all combinations of age and remoteness of usual residence consisting of fewer than 100 cases (see Table B10 in 'Appendix B: Additional tables'). Small case numbers (fewer than 50 cases) among other Australians were also seen for the two oldest age groups of children living in *Remote and very remote* areas



3 Key causes of injury by age

Less than 12 months (Infancy)

For the period 2011–13, the most common cause of hospitalised injury among Indigenous infants was a fall (38%); this was also true for other Australian infants (53%) (Table 3.1). The second most common cause of injury among Indigenous infants was injuries due to other unintentional causes (28%), followed by assault (17%). In comparison, hospitalised assault cases comprised just 3% of cases among other Australian infants.

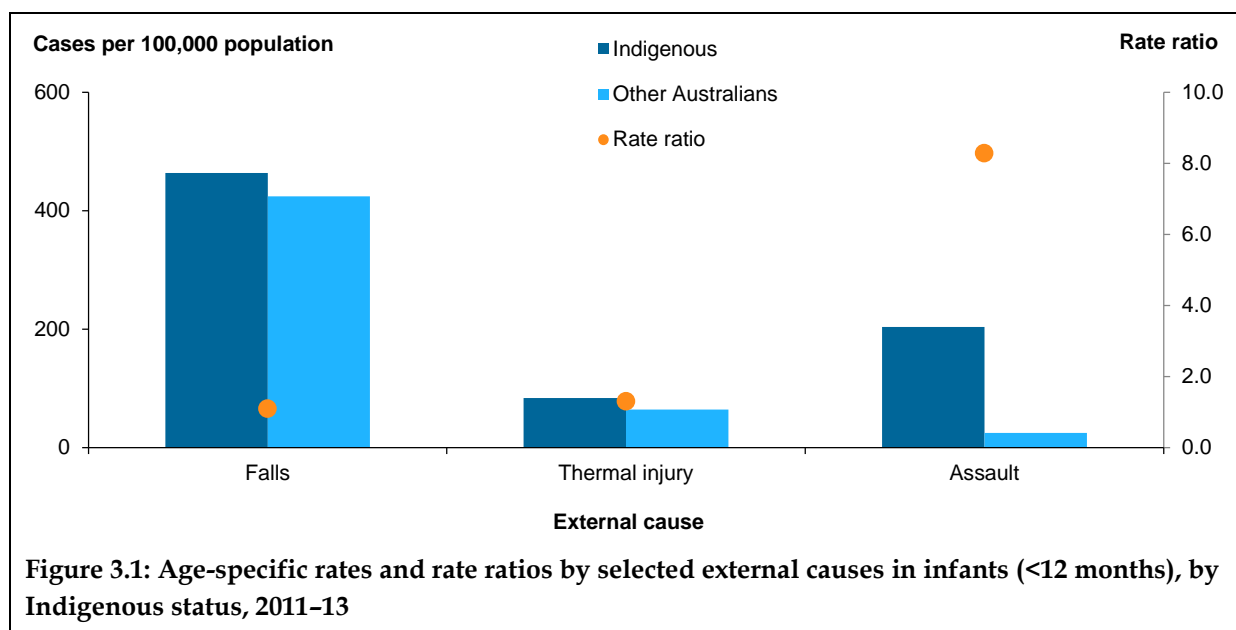
Table 3.1: Number and age-specific rates of major external cause groups for injury cases, infants (<12 months), by Indigenous status, 2011–13

External cause	Indigenous		Other Australians		Rate ratio
	Number	Rate	Number	Rate	
Unintentional injuries					
Transport crashes	8	24	78	14	1.7
Drowning and submersion	8	24	46	9	2.8
Poisoning, pharmaceuticals	9	27	108	20	1.3
Poisoning, other substances	7	21	60	11	1.9
Falls	155	464	2,294	425	1.1
Thermal causes	28	84	348	64	1.3
Other unintentional causes	114	341	1,240	229	1.5
Intentional injuries					
Assault	68	204	133	25	8.3
Undetermined intent	8	24	33	6	3.9
Total ^{(a)(b)}	408	1,222	4,356	806	1.5

(a) Cases coded as intentional self-harm have been omitted; see Box 1.3.

(b) Includes other external causes of injury and not reported.

While the rate of assault injuries (204 cases per 100,000 population) in Indigenous infants was lower than the rate of hospitalised fall injuries (464), they accounted for the largest relative difference in rates between Indigenous and other Australian infants (Figure 3.1).



Falls

Falling from a bed was the most common cause of hospitalised fall injury in Indigenous infants (24%) followed by a fall while being carried (19%) (Table 3.2). These were also the top 2 causes of fall hospitalisations in other Australian infants. The greatest difference between Indigenous and other Australian hospitalised infants was the proportion of falls due to pedestrian conveyances (including baby carriages and baby walkers among other types of conveyances) and other types of furniture – the former more common among Indigenous infants.

Table 3.2: Selected types of fall for injury cases in infants (<12 months), by Indigenous status, 2011–13

	Indigenous		Other Australians	
	Number	%	Number	%
Fall involving bed	37	23.9	452	19.7
Fall while being carried or supported by other persons	30	19.4	538	23.5
Fall involving pedestrian conveyances	23	14.8	161	7.0
Other fall from one level to another	18	11.6	234	10.2
Fall involving chair	14	9.0	274	11.9
Fall involving other furniture	11	7.1	303	13.2
All other fall types	22	14.2	332	14.5
Total	155	100.0	2,294	100.0

Assaults

Maltreatment-related injuries were the most common cause of hospitalised assault injury in Indigenous infants (Table 3.3). Maltreatment-related injuries were also the top cause of assault injury hospitalisations in other Australian infants.

Table 3.3: Selected types of assault and maltreatment injury in infants (<12 months), by Indigenous status, 2011–13

	Indigenous		Other Australians	
	Number	%	Number	%
Maltreatment				
Neglect and abandonment	14	20.6	9	6.8
Other maltreatment syndromes	37	54.4	90	67.7
Assault				
Assault by bodily force	12	17.6	18	13.5
All other types of assault	5	7.4	16	12.0
Total	68	100.0	133	100.0

Thermal causes

There were small numbers of cases of each type of hospitalised thermal injury in Indigenous infants (Table 3.4). There was a relatively high proportion of thermal injuries due to *Contact with hot drinks, food, fats and cooking oils* among hospitalised other Australian infants.

Table 3.4: Types of thermal causes of injury in infants (<12 months), by Indigenous status, 2011–13

Contact with:	Indigenous		Other Australians	
	Number	%	Number	%
Hot household appliances	7	25.0	50	14.4
Hot tap-water	6	21.4	50	14.4
Hot drinks, food, fats and cooking oils	5	17.9	108	31.0
Hot heating appliances, radiators and pipes	4	14.3	24	6.9
Other hot fluids	3	10.7	84	24.1
All other types of thermal injury	3	10.7	32	9.2
Total	28	100.0	348	100.0

1–4 years (Early childhood)

For the period 2011–13, the most common specific cause of hospitalised injury among Indigenous children aged 1–4 was a fall (34%) (Table 3.5). Among other Australian 1–4 year olds hospitalised for injury, falls (44%) were also the most common cause. After falls and other unintentional causes of injury, common causes of hospitalised injury among Indigenous children were thermal injuries and poisoning by pharmaceuticals.

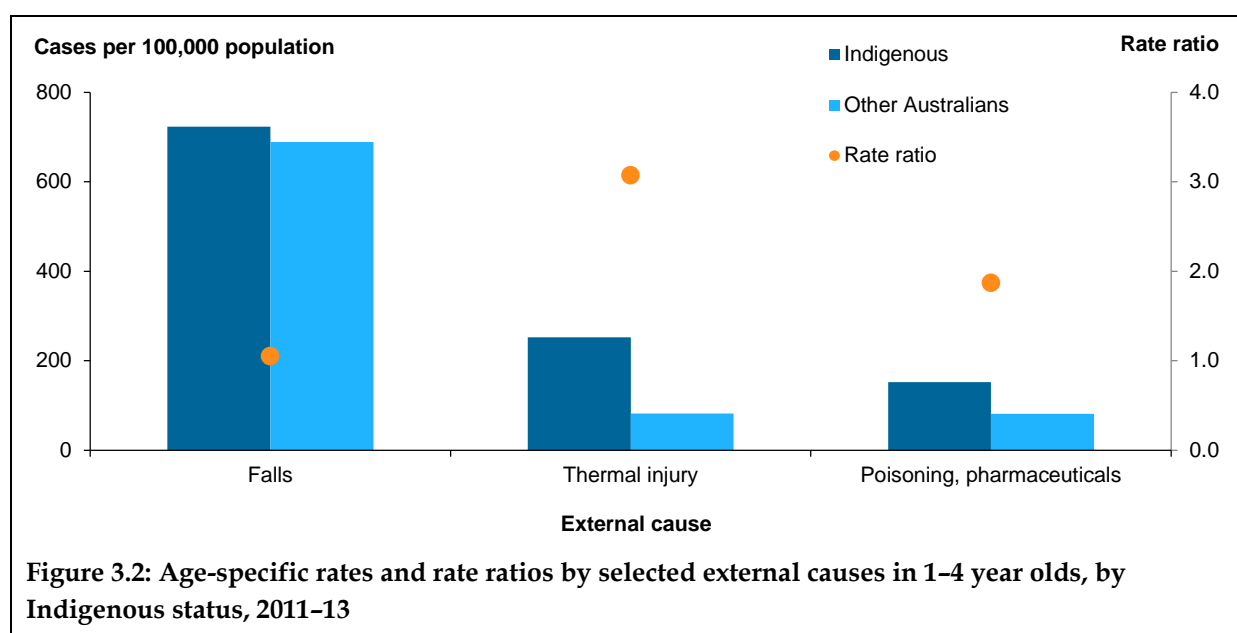
Table 3.5: Number and age-specific rates of major external cause groups for injury cases, 1–4 year olds, by Indigenous status, 2011–13

External cause	Indigenous		Other Australians		Rate ratio
	Number	Rate	Number	Rate	
Unintentional injuries					
Transport crashes	166	125.1	1,376	64.1	2.0
Drowning and submersion	28	21.1	296	13.8	1.5
Poisoning, pharmaceuticals	202	152.2	1,749	81.4	1.9
Poisoning, other substances	76	57.3	611	28.4	2.0
Falls	960	723.2	14,797	688.9	1.0
Thermal causes	335	252.4	1,766	82.2	3.1
Other unintentional causes	999	752.6	13,089	609.4	1.2
Intentional injuries					
Assault	66	49.7	143	6.7	7.5
Undetermined intent	29	21.8	173	8.1	2.7
Total ^{(a)/(b)}	2,864	2,158	34,036	1,585	1.4

(a) Cases coded as intentional self-harm have been omitted, see Box 1.3.

(b) Includes other external causes of injury and not reported.

Rates of falls, thermal injuries and poisoning by pharmaceuticals were higher among Indigenous children aged 1–4 compared with other Australian children hospitalised due to injury (Figure 3.2). The largest relative difference in rates occurred for thermal injuries, where Indigenous 1–4 year olds (252 cases per 100,000 population) were hospitalised as a result of a thermal injury at 3 times the rate of other Australians 1–4 year olds (82). The rate of poisoning by pharmaceuticals in Indigenous 1–4 year olds (152) was almost twice that of other Australian children (81).



Falls

A fall involving playground equipment was the most common cause of hospitalised fall injury among 1–4 year old Indigenous (20%) and other Australians (19%) (Table 3.6). For both Indigenous (97 cases) and other Australian children (1,140 cases), falls involving trampolines were the most common type of fall injury due to playground equipment.

Table 3.6: Selected types of fall injury in 1–4 year olds, by Indigenous status, 2011–13

	Indigenous		Other Australians	
	Number	%	Number	%
Fall involving playground equipment	194	20.2	2,877	19.4
Unspecified fall	94	9.8	1,572	10.6
Fall on same level from slipping, tripping and stumbling	93	9.7	1,760	11.9
Other fall from one level to another	92	9.6	1,099	7.4
Fall involving chair	91	9.5	1,754	11.9
Fall involving bed	81	8.4	1,138	7.7
All other fall types	315	32.8	4,597	31.1
Total	960	100.0	14,797	100.0

Thermal causes

For Indigenous children aged 1–4, the largest proportion of hospitalised thermal injuries were caused by exposure to a controlled outdoor fire (19%); in contrast, just 5% of hospitalisations for other Australians were due to this cause (Table 3.7). Thermal injuries due to *Contact with hot drinks, food, fats and cooking oils* (18%) together with contact with other hot fluids (16%) accounted for a third of all thermal injuries in Indigenous children aged 1–4, compared with more than half of all thermal injuries in other Australian children of this age group.

Table 3.7: Types of thermal causes of injury in 1–4 year olds, by Indigenous status, 2011–13

	Indigenous		Other Australians	
	Number	%	Number	%
Exposure to controlled fire, not in building or structure	64	19.1	92	5.2
Contact with hot drinks, food, fats and cooking oils	60	17.9	608	34.4
Contact with other hot fluids	52	15.5	362	20.5
Contact with hot household appliances	28	8.4	189	10.7
Contact with hot tap-water	24	7.2	148	8.4
All other types of thermal injury	107	31.9	367	20.8
Total	335	100.0	1,766	100.0

Poisoning by pharmaceuticals

Cases of hospitalised poisoning by pharmaceuticals in 1–4 year old Indigenous and other Australian children were mostly caused by other and unspecified substances (41%) (Table 3.8). The second most common type of poisoning among hospitalisations for Indigenous and other Australian children aged 1–4 was due to antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs (34% and 30%, respectively).

Table 3.8: Selected types of poisoning, pharmaceuticals in 1–4 year olds, by Indigenous status, 2011–13

	Indigenous		Other Australians	
	Number	%	Number	%
Other and unspecified drugs, medicaments and biological substances	83	41.1	710	40.6
Antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs	69	34.2	527	30.1
Nonopioid analgesics, antipyretics and antirheumatics	20	9.9	274	15.7
Narcotics and psychodysleptics [hallucinogens]	17	8.4	111	6.3
Other drugs acting on the autonomic nervous system	13	6.4	127	7.3
Total	202	100.0	1,749	100.0

5–9 years (Middle childhood)

For the period 2011–13, the most common specific cause of hospitalised injury among Indigenous 5–9 year olds was a fall (46%); this was also true for other Australian children (55%) (Table 3.9). The second most common cause of hospitalised injury among Indigenous children was injuries due to other unintentional causes (35%), followed by transport crash injuries (11%). Thermal injuries accounted for 4% of hospitalisations in Indigenous children compared with 2% among other Australians.

The highest rates of hospitalised injury among 5–9 year old Indigenous children were caused by falls (728 cases per 100,000 population), transport crashes (178) and thermal causes (68). Lower rates of injury were seen for poisonings by pharmaceuticals (19 cases per 100,000 population) and poisoning by other substances (7) among Indigenous children but even these rates were twice those of other Australian children of the same age (8 and 3 cases per 100,000 population, respectively).

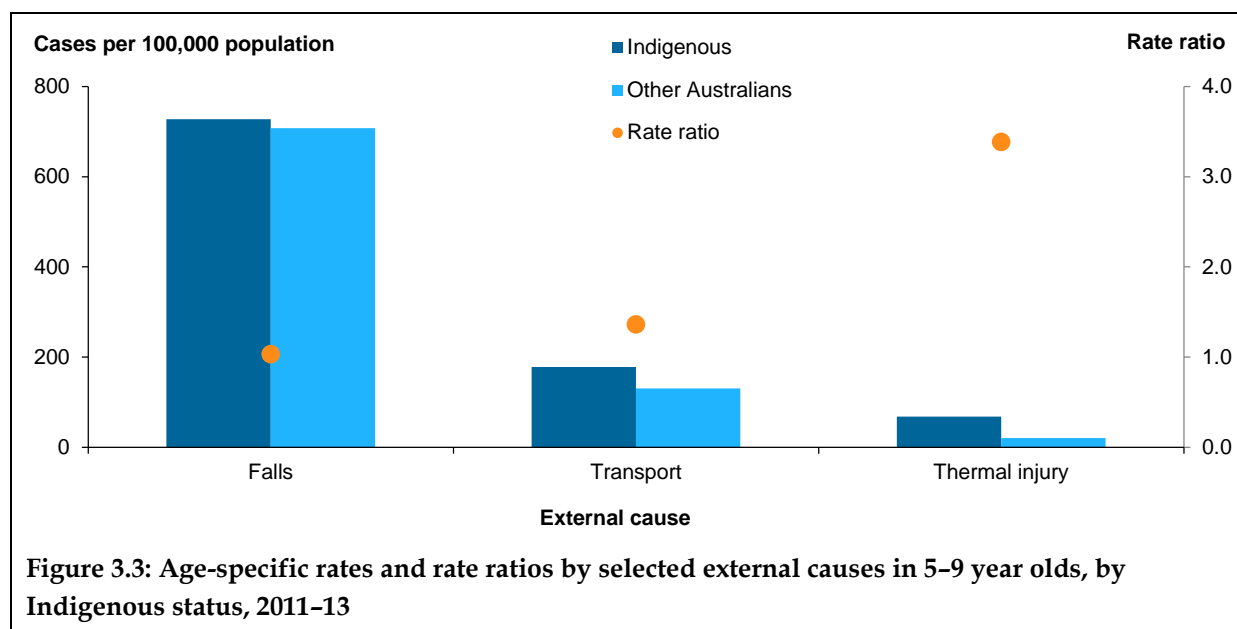
Table 3.9: Number and age-specific rates of major external cause groups, 5–9 year olds, by Indigenous status, 2011–13

External cause	Indigenous		Other Australians		Rate ratio
	Number	Rate	Number	Rate	
Unintentional injuries					
Transport crashes	286	177.7	3,377	130.4	1.4
Drowning and submersion	2	n.p.	82	3.2	0.4
Poisoning, pharmaceuticals	30	18.6	210	8.1	2.3
Poisoning, other substances	11	6.8	84	3.2	2.1
Falls	1,172	728.0	18,323	707.8	1.0
Thermal causes	109	67.7	518	20.0	3.4
Other unintentional causes	888	551.6	10,551	407.6	1.4
Intentional injuries					
Assault	29	18.0	85	3.3	5.5
Undetermined intent	16	9.9	111	4.3	2.3
Total ^{(a)(b)}	2,543	1,581	33,374	1,289	1.2

(a) Cases coded as intentional self-harm have been omitted; see Box 1.3.

(b) Includes other external causes of injury and not reported.

The largest relative difference in rates occurred for hospitalised thermal injuries, where Indigenous 5–9 year olds (68 cases per 100,000 population) were hospitalised as a result of a thermal injury at 3 times the rate of other Australians 5–9 year olds (20) (Figure 3.3).



Falls

Five types of fall accounted for 70% of hospitalised fall injuries in Indigenous 5–9 year olds (Table 3.4). A fall involving playground equipment was the most common cause of fall injury hospitalisations in Indigenous (34%) and other Australian (38%) 5–9 year olds (Table 3.10). For both Indigenous (111 cases) and other Australian children (1,592 cases), falls involving trampolines were the most common type of fall injury due to playground equipment. Falls from trees were the second most common cause for hospitalised Indigenous children (12%) but not for other Australians 5–9 year olds (4%).

Table 3.10: Selected types of fall injury in 5–9 year olds, by Indigenous status, 2011–13

	Indigenous		Other Australians	
	Number	%	Number	%
Fall involving playground equipment	396	33.8	6,946	37.9
Fall from tree	135	11.5	711	3.9
Unspecified fall	98	8.4	1,429	7.8
Other fall from one level to another	96	8.2	1,157	6.3
Other fall on same level	95	8.1	1,680	9.2
All other fall types	352	30.0	6,400	34.9
Total	1,172	100.0	18,323	100.0

Transport crash injury

Incidents involving pedal cycles were the most common cause (41%) of hospitalisations for Indigenous children aged 5–9 as a result of a transport crash injury (Table 3.11). A similar proportion of hospitalisations among other Australian 5–9 year olds were the result of a pedal cycle incident (43%). A fifth of all transport crash injury hospitalisations in Indigenous 5–9 year olds occurred when the child was a passenger in a motor vehicle (21%). Being injured as a pedestrian (13%) and as a motorcycle rider (13%) accounted for a further quarter of hospitalised transport crash injuries in Indigenous 5–9 year olds.

Table 3.11: Selected types of transport crash injury in 5–9 year olds, by Indigenous status, 2011–13

	Indigenous		Other Australians	
	Number	%	Number	%
Pedal cyclist	116	40.6	1,448	42.9
Passenger in motor vehicle	60	21.0	473	14.0
Pedestrian	38	13.3	344	10.2
Motorcyclist	37	12.9	573	17.0
All other transport types	33	11.5	539	16.0
Total	284	100.0	3,377	100.0

Thermal causes

For Indigenous children aged 5–9, the largest proportion of hospitalised thermal injuries were caused by exposure to a controlled outdoor fire (17%), while a smaller proportion (11%) of other Australians were hospitalised due to this cause (Table 3.12). Injuries due to contact with other hot fluids (15%) and hot drinks, food, fats and cooking oils (13%) accounted for just over a quarter of all hospitalised thermal injuries in Indigenous children. In contrast, a much greater proportion of hospitalisations of other Australian children were due to these two causes – 19% and 24%, respectively.

Table 3.12: Types of thermal causes of injury in 5–9 year olds, by Indigenous status, 2011–13

	Indigenous		Other Australians	
	Number	%	Number	%
Exposure to controlled fire, not in building or structure	18	16.5	58	11.2
Contact with other hot fluids	16	14.7	97	18.7
Contact with hot drinks, food, fats and cooking oils	14	12.8	125	24.1
Exposure to other specified smoke, fire and flames	10	9.2	27	5.2
Exposure to ignition of highly flammable material	8	7.3	26	5.0
All other types of thermal injury	43	39.4	185	35.7
Total	109	100.0	518	100.0

10–14 years (Late childhood)

For the period 2011–13, the most common specific causes of hospitalised injury among Indigenous 10–14 year olds were falls (32%) and transport crash injuries (17%) (Table 3.13). Injuries due to other unintentional causes made up a high proportion of hospitalised injury cases among Indigenous (33%) and other Australian children (35%). Intentional self-harm and assault injuries among Indigenous 10–14 year olds accounted for around 6% each of all hospitalised injury cases. In contrast, assault injuries accounted for 1% of hospitalisations in other Australian children.

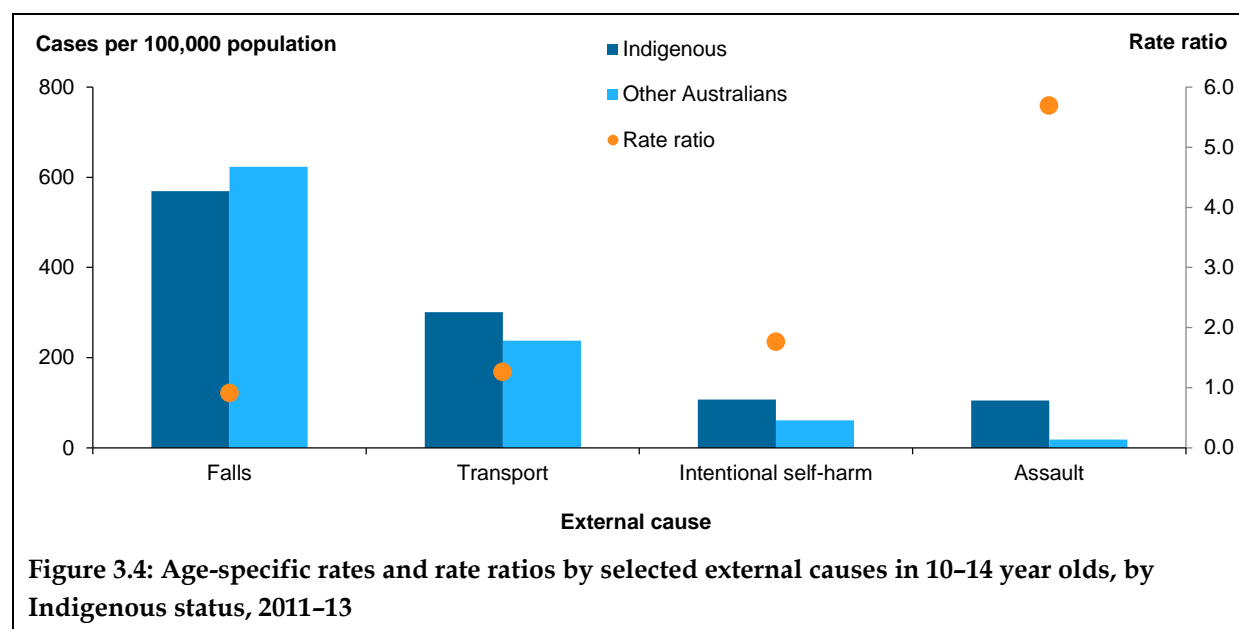
The highest rates of hospitalised injury among 10–14 year old Indigenous children were caused by other unintentional causes (585 cases per 100,000 population), falls (570) and transport crashes (301). Rates of intentional self-harm (107) and assault (105) among Indigenous children were also much higher than in other Australians 10–14 year olds hospitalised due to injury.

Table 3.13: Number and age-specific rates of major external cause groups, 10–14 year olds, by Indigenous status, 2011–13

External cause	Indigenous		Other Australians		Rate ratio
	Number	Rate	Number	Rate	
Unintentional injuries					
Transport crashes	471	301.1	6,125	237.9	1.3
Drowning and submersion	3	n.p.	52	2.0	n.p.
Poisoning, pharmaceuticals	17	10.9	188	7.3	1.5
Poisoning, other substances	18	11.5	83	3.2	3.6
Falls	891	569.6	16,044	623.2	0.9
Thermal causes	64	40.9	438	17.0	2.4
Other unintentional causes	915	584.9	13,576	527.4	1.1
Intentional injuries					
Intentional self-harm	167	106.8	1,559	60.6	1.8
Assault	164	104.8	474	18.4	5.7
Undetermined intent	43	27.5	217	8.4	3.3
Total ^(a)	2,753	1,761	38,788	1,507	1.2

(a) Includes other external causes of injury and not reported.

The largest relative difference in rates occurred for assault injuries, where Indigenous 10–14 year olds (105 cases per 100,000 population) were hospitalised as a result of an injury due to assault at almost 6 times the rate of other Australian 10–14 year olds (18) (Figure 3.4).



Falls

Five types of fall accounted for 65% of hospitalised fall injuries in Indigenous 10–14 year olds (Table 3.14). A fall involving pedestrian conveyances was the most common cause of fall injury hospitalisation in Indigenous (17%) and other Australian (23%) 10–14 year olds (Table 3.10). For both Indigenous (72 cases) and other Australian children (2,303 cases), falls involving skateboards were the most common type of fall injury due to pedestrian conveyances.

Table 3.14: Selected types of fall injury in 10–14 year olds, by Indigenous status, 2011–13

	Indigenous		Other Australians	
	Number	%	Number	%
Fall involving pedestrian conveyances	155	17.4	3,699	23.1
Other fall on same level	117	13.1	2,467	15.4
Other fall on same level due to collision with, or pushing by, another person	116	13.0	2,090	13.0
Fall involving playground equipment	108	12.1	1,799	11.2
Fall on same level from slipping, tripping and stumbling	81	9.1	1,971	12.3
All other fall types	314	35.2	4,018	25.0
Total	891	100.0	16,044	100.0

Transport crash injury

Incidents involving motorcycles were the most common reason (34%) for hospitalisations among Indigenous children aged 10–14 due to a transport crash injury (Table 3.15). In contrast, pedal cycle incidents (36%) were the most common cause of hospitalised transport crash injury among other Australian children. A higher proportion of Indigenous (14%) 10–14 year olds were injured as passengers in motor vehicles compared with other Australian children (9%).

Table 3.15: Selected types of transport crash injury in 10–14 year olds, by Indigenous status, 2011–13

	Indigenous		Other Australians	
	Number	%	Number	%
Motorcyclist	159	33.8	1,658	27.1
Pedal cyclist	137	29.1	2,227	36.4
Passenger in motor vehicle	66	14.0	575	9.4
Pedestrian	44	9.3	416	6.8
All other transport types	64	13.6	1,103	18.4
Total^(a)	470	100.0	5,979	100.0

(a) Excludes cases not involving a motor vehicle.

Assaults

The rate of hospitalised injury due to assault was higher for Indigenous girls (130 cases per 100,000 population) than boys (80 cases per 100,000 population). However, Indigenous girls were hospitalised as a result of an assault at 11 times the rate of other Australian young women (12 cases per 100,000).

The most common cause of assault hospitalisations in Indigenous 10–14 year olds was assault by bodily force (62%); this was also true for other Australians (74%) (Table 3.16). The second most common cause of an assault hospitalisation among Indigenous children aged 10–14 was an assault by blunt object (15%). A much smaller proportion (6%) of hospitalisations for other Australian children was due to assault by a blunt object.

Table 3.16: Selected types of assault injury in 10–14 year olds, by Indigenous status, 2011–13

Assault by	Indigenous		Other Australians	
	Number	%	Number	%
Bodily force	101	61.6	349	73.6
Blunt object	24	14.6	28	5.9
Sharp object	12	7.3	26	5.5
All other types of assault	27	16.5	71	15.0
Total	164	100.0	474	100.0

Intentional self-harm

Just under a half (43%) of intentional self-harm episodes in 10–14 year old Indigenous children hospitalised as a result of an injury occurred due to exposure to a drug or pharmaceutical (Table 3.17). Nonopioid analgesics, antipyretics and antirheumatics (for example, paracetamol and ibuprofen) (24%) and antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs (for example, benzodiazepines) (19%) were the two most common drug groups identified. A much larger proportion of hospitalisations for other Australian 10–14 year olds was as a result of intentional self-harm through exposure to these two drug categories (71%). Differences between Indigenous children and other Australian children were also apparent with respect to the use of sharp objects (19% versus 11%, respectively) and hanging (16% versus 2%, respectively).

Table 3.17: Selected types of intentional self-harm injury in 10–14 year olds, by Indigenous status, 2011–13

Intentional self-harm by	Indigenous		Other Australians	
	Number	%	Number	%
Exposure to nonopioid analgesics, antipyretics and antirheumatics	40	24.0	758	48.6
Exposure to antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs	32	19.2	343	22.0
Sharp object	31	18.6	168	10.8
Hanging, strangulation and suffocation	26	15.6	38	2.4
All other types of intentional self-harm	38	22.8	252	16.2
Total	167	100.0	1,559	100.0

15–17 years (Adolescence)

For the period 2011–13, the most common specific cause of hospitalised injury among Indigenous 15–17 year old adolescents was assault (19%) compared with just 5% for other Australian adolescents (Table 3.18). Injuries due to other unintentional causes made up a high proportion of hospitalised injury cases among Indigenous (31%) and other Australian adolescents (39%). Similar proportions of cases due to transport crashes, falls and intentional self-harm were seen for Indigenous and other Australian 15–17 year olds.

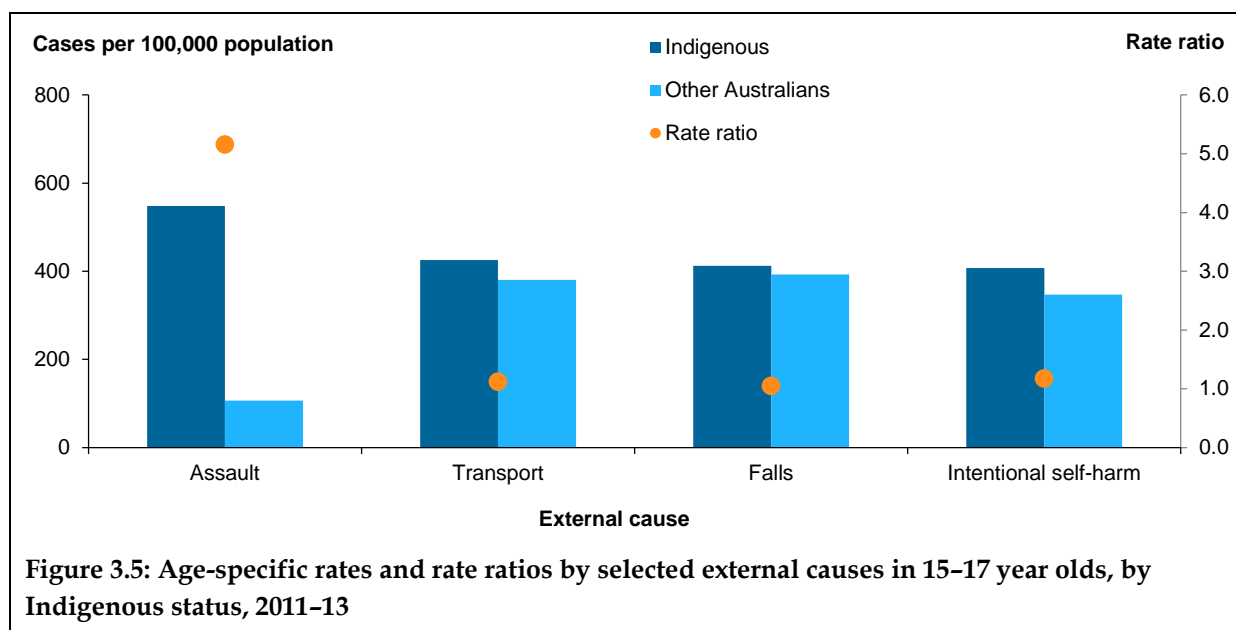
The highest rates of injury among 15–17 year old Indigenous adolescents were caused by other unintentional causes (887 cases per 100,000 population), assault (549) and transport crashes (426).

Table 3.18: Number and age-specific rates of major external cause groups, 15–17 year olds, by Indigenous status, 2011–13

External cause	Indigenous		Other Australians		Rate ratio
	Number	Rate	Number	Rate	
Unintentional injuries					
Transport crashes	392	425.8	6,110	380.6	1.1
Drowning and submersion	3	n.p.	27	1.7	n.p.
Poisoning, pharmaceuticals	26	28.2	439	27.3	1.0
Poisoning, other substances	11	11.9	116	7.2	1.7
Falls	380	412.7	6,310	393.0	1.1
Thermal causes	40	43.4	382	23.8	1.8
Other unintentional causes	817	887.4	13,817	860.6	1.0
Intentional injuries					
Intentional self-harm	375	407.3	5,567	346.8	1.2
Assault	505	548.5	1,708	106.4	5.2
Undetermined intent	51	55.4	580	36.1	1.5
Total ^(a)	2,600	2,827	35,095	2,186	1.3

(a) Includes other external causes of injury and not reported.

The largest relative difference in rates occurred for injuries due to assault, where Indigenous 15–17 year olds (549 cases per 100,000 population) were hospitalised as a result of an assault injury at 5 times the rate of other Australians 15–17 year olds (106) (Figure 3.5).



Assaults

The rate of hospitalised injury due to assault was similar for Indigenous adolescent males (580 cases per 100,000 population) and females (515 cases per 100,000 population). However, female Indigenous adolescents were hospitalised as a result of an assault at 12 times the rate of other adolescent Australian females (43 cases per 100,000).

The most common cause of assault hospitalisations in Indigenous 15-17 year olds was assault by bodily force (57%); this was also true for other Australians (68%) (Table 3.19). The second most common cause of an assault hospitalisation among Indigenous adolescents was an assault by blunt object (18%). In contrast, a smaller proportion (10%) of hospitalisations for other Australian adolescents was due to assault by a blunt object.

Table 3.19: Selected types of assault injury in 15-17 year olds, by Indigenous status, 2011-13

Assault by	Indigenous		Other Australians	
	Number	%	Number	%
Bodily force	287	56.8	1,164	68.1
Blunt object	93	18.4	164	9.6
Sharp object	71	14.1	179	10.5
All other types of assault	54	10.7	201	11.8
Total	505	100.0	1,708	100.0

Transport crash injury

Incidents involving motorcycles (28%) and being a passenger in a motor vehicle crash (28%) were the most common reasons for Indigenous adolescents to be hospitalised as a result of a transport crash injury (Table 3.20). A smaller proportion of hospitalisations among Indigenous adolescents (12%) were due to being a pedal cyclist compared with other Australian adolescents (21%).

Table 3.20: Selected types of transport crash injury in 15–17 year olds, by Indigenous status, 2011–13

	Indigenous		Other Australians	
	Number	%	Number	%
Motorcyclist	109	28.4	1,998	33.4
Passenger in motor vehicle	108	28.1	948	15.9
Pedal cyclist	47	12.2	1,276	21.4
Driver of motor vehicle	46	12.0	722	12.1
Pedestrian	32	8.3	334	5.6
Other or unknown	31	8.1	582	9.7
Occupant of motor vehicle	11	2.9	114	1.9
Total^(a)	384	100.0	5,974	100.0

(a) Includes other external causes of injury and not reported.

Falls

Over a quarter (28%) of all hospitalised fall injuries in Indigenous adolescents occurred as a result of a fall due to a collision with, or pushing by, another person (Table 3.21). A similar proportion (24%) of hospitalisations among other Australian adolescents was also due to this cause. Falls from pedestrian conveyances were much less common for Indigenous adolescents (11%) compared with other Australians (20%).

Table 3.21: Selected types of fall injury in 15–17 year olds, by Indigenous status, 2011–13

	Indigenous		Other Australians	
	Number	%	Number	%
Other fall on same level due to collision with, or pushing by, another person	105	27.6	1,522	24.1
Other fall on same level	63	16.6	1,013	16.1
Fall on same level from slipping, tripping and stumbling	45	11.8	673	10.7
Fall involving pedestrian conveyances	42	11.1	1,260	20.0
Fall from, out of or through building or structure	27	7.1	232	3.7
All other fall types	98	25.8	1,610	25.5
Total	380	100.0	6,310	100.0

Intentional self-harm

Just over half (55%) of intentional self-harm hospitalised episodes in 15–17 year old Indigenous adolescents occurred as a result of exposure to a drug (Table 3.22). Antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs (for example, benzodiazepines) (28%) and nonopioid analgesics, antipyretics and antirheumatics (for example, paracetamol and ibuprofen) (27%) were the two most common drug categories identified as causing hospitalisations among Indigenous adolescents. A much larger proportion of hospitalisations among other Australian adolescents as a result of intentional self-harm were due to intentional self-harm through exposure to nonopioid analgesics, antipyretics and antirheumatics (45%). Differences between Indigenous and other Australian adolescents were also apparent with respect to the use of sharp objects (18% versus 10%, respectively) and hanging (13% versus 2%, respectively).

Table 3.22: Selected types of intentional self-harm injury in 15–17 year olds, by Indigenous status, 2011–13

Intentional self-harm by	Indigenous		Other Australians	
	Number	%	Number	%
Exposure to antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs	106	28.3	1,568	28.2
Exposure to nonopioid analgesics, antipyretics and antirheumatics	100	26.7	2,514	45.2
Sharp object	66	17.6	565	10.1
Hanging, strangulation and suffocation	50	13.3	116	2.1
Exposure to other and unspecified drugs, medicaments and biological substances	28	7.5	374	6.7
All other types of intentional self-harm	25	6.7	430	7.7
Total	375	100.0	5,567	100.0

18–24 years (Young adulthood)

For the period 2011–13, the most common cause of hospitalised injury among Indigenous 18–24 year olds was assault (32%); a much smaller proportion of hospitalisations of other Australian young people (9%) were due to assault in the same period (Table 3.23). Injuries due to other unintentional causes were the second most common cause of hospitalisation for Indigenous young people, accounting for 29% of all injury cases. Similar proportions of cases were due to transport crash injuries (12%) and intentional self-harm (11%) among Indigenous young people. In contrast, hospitalisations among other Australian young people showed a larger proportion of transport crash injuries (19%).

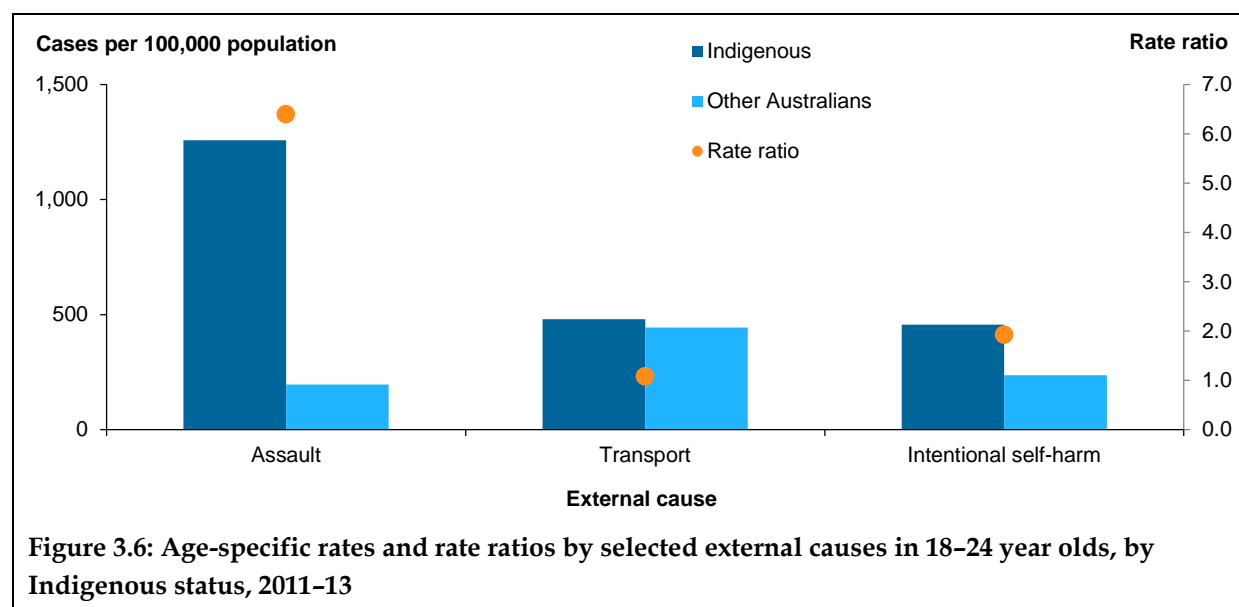
The highest rates of injury among 18–24 year old Indigenous young people were caused by assault (1,257 cases per 100,000 population) and other unintentional causes (1,153). In comparison, for other Australian young people, the highest rates of injury were caused by other unintentional causes (966) followed by transport crashes (444); assault was the fifth most frequent cause of injury.

Table 3.23: Number and age-specific rates of major external cause groups, 18–24 year olds, by Indigenous status, 2011–13

External cause	Indigenous		Other Australians		Rate ratio
	Number	Rate	Number	Rate	
Unintentional injuries					
Transport crashes	887	480.5	18,463	443.7	1.1
Drowning and submersion	1	n.p.	99	2.4	n.p.
Poisoning, pharmaceuticals	112	60.7	1,485	35.7	1.7
Poisoning, other substances	26	14.1	475	11.4	1.2
Falls	802	434.5	12,785	307.2	1.4
Thermal causes	93	50.4	1,387	33.3	1.5
Other unintentional causes	2,128	1,152.8	40,174	965.5	1.2
Intentional injuries					
Intentional self-harm	842	456.1	9,853	236.8	1.9
Assault	2,321	1,257.4	8,175	196.5	6.4
Undetermined intent	141	76.4	1,806	43.4	1.8
Total ^(a)	7,353	3,988	94,855	2,280	1.7

(a) Includes other external causes of injury and not reported.

The largest relative difference in rates occurred for injuries due to assault, where Indigenous 18–24 year olds (1,257 cases per 100,000 population) were hospitalised as a result of an assault at more than 6 times the rate of other Australian 18–24 year olds (197) (Figure 3.6).



Assaults

The rate of hospitalised injury due to assault was slightly lower for Indigenous men aged 18–24 (1,160 cases per 100,000 population) compared with women in this age group (1,360 cases per 100,000 population). However, Indigenous women were hospitalised as a result of an assault at 22 times the rate of other Australian young women (63 cases per 100,000).

The most common cause of assault hospitalisations in Indigenous 18–24 year olds was assault by bodily force (53%); this was also true for other Australians (68%) (Table 3.24). The second most common cause of an assault hospitalisation among Indigenous young adults was an assault by blunt object (18%). A much smaller proportion (9%) of hospitalisations among other Australian young adults were due to assault by a blunt object.

Table 3.24: Selected types of assault injury in 18–24 year olds, by Indigenous status, 2011–13

Assault by	Indigenous		Other Australians	
	Number	%	Number	%
Bodily force	1,236	53.3	5,566	68.1
Blunt object	410	17.7	694	8.5
Sharp object	347	15.0	842	10.3
All other types of assault	328	14.1	1,073	13.1
Total	2,321	100.0	8,175	100.0

Transport crash injury

About a quarter of all hospitalised transport crash injuries involved Indigenous young adults as pedestrians (27%) (Table 3.25). In comparison, just 5% of hospitalisations in other Australian pedestrians were due to a transport crash injury in the same period. Another quarter (25%) of all hospitalisations for Indigenous young people were due to being injured as a pedal cyclist – again a much larger proportion compared with their other Australian counterparts (9%).

Table 3.25: Selected types of transport crash injury in 18–24 year olds, by Indigenous status, 2011–13

	Indigenous		Other Australians	
	Number	%	Number	%
Pedestrian	235	26.9	951	5.3
Pedal cyclist	219	25.1	1,737	9.6
Motorcyclist	197	22.6	5,773	32.0
Driver of motor vehicle	84	9.6	5,329	29.5
Passenger in motor vehicle	69	7.9	2,427	13.4
Occupant of motor vehicle	41	4.7	562	3.1
Other or unknown	28	3.2	1,288	7.1
Total^(a)	873	100.0	18,067	100.0

(a) Includes other external causes of injury and not reported.

Intentional self-harm

Almost a third (30%) of intentional self-harm hospitalised episodes in 18–24 year old Indigenous young people occurred as a result of exposure to antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs (for example, benzodiazepines) (Table 3.26). In contrast, a much larger proportion of hospitalisations among other Australian young adults were due to self-harm by exposure to antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs (41%). A further quarter of hospitalisations among Indigenous young adults were due to use of a sharp object to self-harm compared with just 13% of other Australians.

Table 3.26: Selected types of intentional self-harm injury in 18–24 year olds, by Indigenous status, 2011–13

Intentional self-harm by	Indigenous		Other Australians	
	Number	%	Number	%
Exposure to antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs	249	29.6	4,024	40.8
Sharp object	213	25.3	1,252	12.7
Exposure to nonopioid analgesics, antipyretics and antirheumatics	133	15.8	2,631	26.7
Hanging, strangulation and suffocation	101	12.0	243	2.5
All other types of intentional self-harm	146	17.3	1,703	17.3
Total	842	100.0	9,853	100.0

Appendix A: Data issues

Data sources

Hospitalisation data were presented for the 2-year period from July 2011 to June 2013. An aggregate of 2 years of data has been used because the number of hospitalisations for some conditions is likely to be small for a single year.

The data on hospital separations were drawn from the Australian Institute of Health and Welfare's (AIHW) National Hospital Morbidity Database (NHMD). Comprehensive information on the quality of the data for 2011–12 and 2012–13 is available in *Australian hospital statistics 2011–12* (AIHW 2013a) and *Australian hospital statistics 2012–13* (AIHW 2014). Data quality statements covering both years are available in this appendix. Nearly all injury cases admitted to hospitals in Australia are thought to be included in the NHMD reported data.

In 2011–12 and 2012–13, diagnoses and external causes of injury and poisoning were recorded using the seventh edition of the *International statistical classification of diseases and related health problems, 10th revision, Australia modification* (ICD-10-AM) (NCCH 2010).

Estimating incident cases

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

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

The NHMD does not include information designed to enable the set of records belonging to an injury case to be recognised as such. Hence, there is potential for some incident injury cases to be counted more than once, which exists when a single incident injury case results in two or more NHMD records being generated, all of which satisfy the selection criteria being used.

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

This procedure should largely correct for overestimation of cases due to transfers, but will not correct for overestimation due to readmissions.

Rates

Rates were calculated using the final estimate of the estimated resident population (ERP) as at 31 December for each year aggregated for the 2-year period 2011–13. All-ages rates have been adjusted for age to overcome the effect of differences in the proportions of people of different ages (and different injury risks) in the populations that are compared. Direct standardisation was employed, taking the Australian population in 2001 as the standard (ABS 2003). Where age-specific rates are reported, this is noted.

Rates of injury for Indigenous people were calculated using the projected populations Series B (ABS 2014). For other Australians, populations were derived by calculating the difference between the corresponding Indigenous and total populations.

Rate ratios

For some tables and charts reporting comparative injury rates, rate ratios are presented. The ratios are calculated by dividing the age-standardised or age-specific injury rate for a population of interest (Indigenous) by the age-standardised or age-specific rate for a comparison population (other Australians).

A ratio of 1.0 indicates that the population of interest (for example, Indigenous Australians) had an injury rate similar to that of the comparison group (for example, other Australians). A rate ratio of 1.2 indicates that the population of interest had a rate that was 20% greater than that of the comparison population and a rate ratio of 0.8 indicates a rate 20% smaller.

Classification of remoteness area

In this report, remoteness area refers to the place of usual residence of the person who was admitted to hospital, assigned on the basis of the reported Statistical Local Area (SLA) of residence.

The remoteness areas were specified according to two types of geographical classification used by the Australian Bureau of Statistics (ABS). For 2011–12, the geographical location aligns with the ABS's Australian Standard Geographical Classification (ASGC) Remoteness Structure (ABS 2006). For 2012–13, data on remoteness area of usual residence were defined using the ABS's Australian Statistical Geography Standard (ASGS) Remoteness Structure (ABS 2011).

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

Major cities (for example, Sydney, Geelong, Gold Coast), ARIA index 0 to 0.2

Inner regional (for example, Hobart, Ballarat, Coffs Harbour), ARIA index >0.2 and ≤2.4

Outer regional (for example, Darwin, Cairns, Coonabarabran), ARIA index >2.4 and ≤5.92

Remote (for example, Alice Springs, Broome, Strahan), ARIA index of >5.92 and ≤10.53

Very remote (for example, Coober Pedy, Longreach, Exmouth), ARIA index >10.53.

Indigenous status

In this report, the terms 'Indigenous people' and 'Aboriginal and Torres Strait Islander people' are used to refer to persons identified as such in Australian hospital separations data and population data collections. For analyses of the data, the term 'other Australians' includes all separations for persons identified as not Indigenous, as well as separations where Indigenous status was not stated.

Quality of Indigenous status data

The AIHW regularly undertakes studies to assess the accuracy of Indigenous identification in hospital separations data in Australia. The latest *Indigenous identification in hospital separations data: quality report* was released in May 2013 (AIHW 2013b) and found that an estimated 88% of Indigenous patients were correctly identified in Australian public hospital admission records in 2011–12.

The report recommended that the data for all jurisdictions be used in analysis of Indigenous hospitalisation rates, for hospitalisations in total in national analyses of Indigenous admitted patient care for data from 2010–11 onwards.

The report also recommended using correction factors to adjust total hospital separations rates data, but that these should only be applied to total hospitalisations and not subsets (such as particular patient types or specific age groups); therefore, correction factors were not used in this report.

Additional information on the quality of Indigenous status data in the hospitals data provided to the AIHW provided by the states and territories is available in *Australian hospital statistics 2011–12* (AIHW 2013a).

Confidentiality and reliability of data

The AIHW operates under a strict privacy regime which has its basis in section 29 of the *Australian Institute of Health and Welfare Act 1987* (AIHW Act) and the *Privacy Act 1988* (Privacy Act).

Section 29 of the AIHW Act requires that confidentiality of data relating to persons (living and deceased) and organisations be maintained. The Privacy Act governs confidentiality of information about living individuals.

As well as the protection offered by AIHW Act and the Privacy Act, personal information held by the AIHW is covered by a range of other Commonwealth, state and territory legislation.

The AIHW is committed to reporting that maximises the value of information released for users while being statistically reliable and meeting legislative requirements described above. To ensure the confidentiality of its data, the AIHW has a range of policies, protocols and processes in place – the AIHW Policy on reporting to manage confidentiality and reliability (AIHW Confidentiality Policy) is one important example, as it deals with how data should be reported to ensure confidentiality.

AIHW Confidentiality Policy, a summary

The AIHW Confidentiality Policy contains 7 guidelines to assist those working with data to apply it to their outputs.

Guideline 1

It is AIHW policy that if the data being considered have already been released publicly at the granularity AIHW intends to release, further confidentialisation is not required.

Guideline 2

Cells in tables where the value of the cell is the same as a row/column/wafer total (that is, all other cells in the row, column or wafer are zero) generally lead to disclosure of an additional attribute. It is AIHW policy that these cells need to be confidentialised unless the attribute that would be disclosed is deemed to be non-sensitive in the context of the data being published.

Guideline 3

It is AIHW policy that data on organisations must be confidentialised if 1 organisation contributes more than 85% of the total, or 2 organisations more than 90%, unless the attribute that would be disclosed is deemed to be non-sensitive in the context of the data being published or the organisation(s) have given consent to release.

Guideline 4

It is AIHW policy that guidelines 2 and 3 need to be applied so as to ensure that attribute confidentiality is maintained within tables and across tables within the same release. That is, when assessing whether a cell needs to be confidentialised, consideration needs to be given to whether there are other cells in that table, or other tables in the release, which may require consequential confidentialisation.

Guideline 5

Rates, averages and other statistics based on denominators of less than 100 are usually not reliable and it is AIHW policy that they should generally not be reported.

Guideline 6

It is AIHW policy that if data suppliers or clients require additional suppression rules be applied to an AIHW release in order to manage confidentiality or reliability, then these should be applied. Where such additional rules are applied they should be described in the release, and it should be noted that this approach is required by the data supplier.

Guideline 7

It is AIHW policy that, if a client wishes to be provided with data output (for example, tables) at a more detailed level than any of the above guidelines would allow, then they may apply to be provided output against which some or all of the above guidelines are not applied. Provision of this more detailed output would be subject to the client signing a confidentiality undertaking and agreeing that any publication of information (including in online data cubes) based on output released to them will comply with this policy.

Errors, inconsistencies and uncertainties

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

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

Data Quality Statement: National Hospital Morbidity Database

This section provides a summary of key issues relevant to interpretation of the National Hospital Morbidity Database (NHMD) for 2011–12 and 2012–13.

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

<<http://meteor.aihw.gov.au/content/index.phtml/itemId/529483>> for 2011–12, and

<<http://meteor.aihw.gov.au/content/index.phtml/itemId/568730>> for 2012–13.

2011–12 Summary of key issues

- The NHMD is a comprehensive dataset that has records for all separations of admitted patients from essentially all public and private hospitals in Australia.
- A record is included for each separation, not for each patient, so patients who separated more than once in the year have more than one record in the NHMD.
- For 2011–12, almost all public hospitals provided data for the NHMD. The exception was a mothercraft hospital in the Australian Capital Territory. The great majority of private hospitals also provided data, the exceptions being the private day hospital facilities in the Australian Capital Territory, and the single private free-standing day hospital facility in the Northern Territory.
- There is apparent variation between states and territories in the use of statistical discharges and associated assignment of care types. For example, for public hospitals, the proportion of separations ending with a statistical discharge varied from 0.9% to 3.9% across states and territories.
- Variations in admission practices and policies lead to variation among providers in the number of admissions for some conditions.
- Caution should be used in comparing diagnosis, procedure and external cause data over time, as the classifications and coding standards for those data can change over time.

2012–13 Summary of key issues

- The National Hospital Morbidity Database (NHMD) is a comprehensive dataset that has records for all separations of admitted patients from essentially all public and private hospitals in Australia.

- A record is included for each separation, not for each patient, so patients who separated more than once in the year have more than one record in the NHMD.
- For 2012–13, almost all public hospitals provided data for the NHMD. The exception was a mothercraft hospital in the Australian Capital Territory. The great majority of private hospitals also provided data, the exceptions being the private free-standing day hospital facilities in the Australian Capital Territory, the single private free-standing day hospital in the Northern Territory, and a private free-standing day hospital in Victoria.
- There is apparent variation between states and territories in the use of statistical discharges and associated assignment of care types. For example, for public hospitals, the proportion of separations ending with a statistical discharge varied from 0.9% to 3.9% across states and territories.
- Data on state of hospitalisation should be interpreted with caution because of cross-border flows of patients. This is particularly the case for the Australian Capital Territory. In 2012–13, about 20% of separations for Australian Capital Territory hospitals were for patients who resided in New South Wales.
- Variations in admission practices and policies lead to variation among providers in the number of admissions for some conditions.
- Caution should be used in comparing diagnosis, procedure and external cause data over time, as the classifications and coding standards for those data can change over time.

Appendix B: Additional tables

Table B1: Number and age-specific rates of injury, by remoteness of usual residence, age group and Indigenous status, 2011–13

	Major cities		Inner & Outer regions		Remote & Very remote regions	
	Number	Rate	Number	Rate	Number	Rate
Indigenous						
<12 months	123	1,062.0	182	1,170.6	102	1,629.8
1–4	766	1,687.1	1,255	2,030.7	836	3,273.1
5–9	625	1,153.5	1,039	1,412.5	875	2,632.4
10–14	783	1,451.4	1,191	1,631.7	775	2,627.8
15–17	769	2,313.3	1,107	2,580.6	717	4,500.4
18–24	1,918	2,705.8	2,627	3,462.4	2,772	7,327.0
Other Australians						
<12 months	3,115	731.0	1,104	798.9	95	790.1
1–4	23,093	1,423.9	9,963	1,709.8	828	1,676.3
5–9	21,815	1,146.6	10,625	1,434.4	773	1,346.3
10–14	24,501	1,344.0	13,158	1,715.5	998	1,984.1
15–17	21,793	1,916.4	12,272	2,584.4	848	3,334.1
18–24	62,123	1,911.1	27,688	2,893.4	2,504	3,369.2

Table B2: Number and age-specific rates of transport crash injury, by remoteness of usual residence, age group and Indigenous status, 2011–13

	Major cities		Inner & Outer regions		Remote & Very remote regions	
	Number	Rate	Number	Rate	Number	Rate
Indigenous						
<12 months	3	n.p.	3	n.p.	2	n.p.
1–4	42	92.5	75	121.4	49	191.8
5–9	68	125.5	122	165.9	95	285.8
10–14	130	241.0	215	294.5	125	423.8
15–17	130	391.1	167	389.3	94	590.0
18–24	261	368.2	367	483.7	257	679.3
Other Australians						
<12 months	46	10.8	25	18.1	7	58.2
1–4	751	46.3	560	96.1	57	115.4
5–9	1,773	93.2	1,455	196.4	137	238.6
10–14	3,042	166.9	2,791	363.9	269	534.8
15–17	2,987	262.7	2,861	602.5	227	892.5
18–24	10,590	325.8	6,536	683.0	752	1,011.8

Table B3: Number and age-specific rates of drowning and submersion, by remoteness of usual residence, age group and Indigenous status, 2011–13

	Major cities		Inner & Outer regions		Remote & Very remote regions	
	Number	Rate	Number	Rate	Number	Rate
Indigenous						
<12 months	0	n.p.	8	51.5	0	n.p.
1–4	2	n.p.	23	37.2	3	n.p.
5–9	0	n.p.	1	n.p.	1	n.p.
10–14	2	n.p.	1	n.p.	0	n.p.
15–17	0	n.p.	3	n.p.	0	n.p.
18–24	0	n.p.	0	n.p.	1	n.p.
Other Australians						
<12 months	33	7.7	11	8.0	2	n.p.
1–4	173	10.7	114	19.6	8	16.2
5–9	53	2.8	24	3.2	1	n.p.
10–14	35	1.9	14	1.8	2	n.p.
15–17	17	1.5	9	1.9	1	n.p.
18–24	57	1.8	30	3.1	2	n.p.

Table B4: Number and age-specific rates of poisoning by pharmaceuticals, by remoteness of usual residence, age group and Indigenous status, 2011–13

	Major cities		Inner & Outer regions		Remote & Very remote regions	
	Number	Rate	Number	Rate	Number	Rate
Indigenous						
<12 months	2	n.p.	4	n.p.	3	n.p.
1–4	56	123.3	97	157.0	49	191.8
5–9	10	18.5	13	17.7	7	21.1
10–14	11	20.4	5	6.8	1	n.p.
15–17	14	42.1	11	25.6	1	n.p.
18–24	56	79.0	44	58.0	7	18.5
Other Australians						
<12 months	75	17.6	30	21.7	2	n.p.
1–4	1,083	66.8	616	105.7	47	95.2
5–9	133	7.0	71	9.6	4	n.p.
10–14	125	6.9	60	7.8	2	n.p.
15–17	297	26.1	133	28.0	6	23.6
18–24	1,080	33.2	357	37.3	10	13.5

Table B5: Number and age-specific rates of poisoning by other substances, by remoteness of usual residence, age group and Indigenous status, 2011–13

	Major cities		Inner & Outer regions		Remote & Very remote regions	
	Number	Rate	Number	Rate	Number	Rate
Indigenous						
<12 months	1	n.p.	6	38.6	0	n.p.
1–4	20	44.1	35	56.6	20	78.3
5–9	3	n.p.	3	n.p.	5	15.0
10–14	3	n.p.	7	9.6	8	27.1
15–17	4	n.p.	6	14.0	1	n.p.
18–24	5	7.1	13	17.1	8	21.1
Other Australians						
<12 months	40	9.4	19	13.7	1	n.p.
1–4	371	22.9	212	36.4	25	50.6
5–9	51	2.7	29	3.9	3	n.p.
10–14	54	3.0	26	3.4	3	n.p.
15–17	60	5.3	51	10.7	2	n.p.
18–24	270	8.3	171	17.9	19	25.6

Table B6: Number and age-specific rates of falls, by remoteness of usual residence, age group and Indigenous status, 2011–13

	Major cities		Inner & Outer regions		Remote & Very remote regions	
	Number	Rate	Number	Rate	Number	Rate
Indigenous						
<12 months	51	440.4	74	475.9	30	479.3
1–4	305	671.8	413	668.3	239	935.7
5–9	293	540.7	494	671.6	381	1,146.2
10–14	261	483.8	402	550.7	227	769.7
15–17	126	379.0	181	421.9	71	445.6
18–24	233	328.7	324	427.0	243	642.3
Other Australians						
<12 months	1,716	402.7	516	373.4	44	365.9
1–4	10,549	650.4	3,870	664.2	321	649.9
5–9	12,301	646.5	5,578	753.1	349	607.9
10–14	10,529	577.5	5,128	668.6	331	658.0
15–17	4,031	354.5	2,118	446.0	131	515.0
18–24	8,590	264.3	3,487	364.4	283	380.8

Table B7: Number and age-specific rates of thermal injury, by remoteness of usual residence, age group and Indigenous status, 2011–13

	Major cities		Inner & Outer regions		Remote & Very remote regions	
	Number	Rate	Number	Rate	Number	Rate
Indigenous						
<12 months	7	60.4	15	96.5	6	95.9
1–4	59	129.9	134	216.8	142	556.0
5–9	22	40.6	36	48.9	50	150.4
10–14	13	24.1	24	32.9	27	91.5
15–17	14	42.1	12	28.0	14	87.9
18–24	26	36.7	36	47.4	31	81.9
Other Australians						
<12 months	221	51.9	110	79.6	10	83.2
1–4	1,008	62.2	671	115.2	73	147.8
5–9	294	15.5	191	25.8	30	52.3
10–14	217	11.9	190	24.8	30	59.6
15–17	188	16.5	175	36.9	19	74.7
18–24	762	23.4	498	52.0	61	82.1

Table B8: Number and age-specific rates of other unintentional injuries, by remoteness of usual residence, age group and Indigenous status, 2011–13

	Major cities		Inner & Outer regions		Remote & Very remote regions	
	Number	Rate	Number	Rate	Number	Rate
Indigenous						
<12 months	39	336.7	43	276.6	32	511.3
1–4	260	572.7	436	705.5	301	1,178.5
5–9	223	411.6	355	482.6	310	932.6
10–14	257	476.4	389	532.9	268	908.7
15–17	238	716.0	359	836.9	218	1,368.3
18–24	601	847.9	875	1,153.3	644	1,702.2
Other Australians						
<12 months	874	205.1	330	238.8	26	216.2
1–4	8,962	552.6	3,777	648.2	286	579.0
5–9	7,080	372.1	3,186	430.1	242	421.5
10–14	9,043	496.0	4,191	546.4	307	610.3
15–17	8,929	785.2	4,513	950.4	320	1,258.1
18–24	27,011	830.9	11,336	1,184.6	981	1,319.9

Table B9: Number and age-specific rates of intentional self-harm, by remoteness of usual residence, age group and Indigenous status, 2011–13

	Major cities		Inner & Outer regions		Remote & Very remote regions	
	Number	Rate	Number	Rate	Number	Rate
Indigenous						
<12 months	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1–4	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
5–9	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
10–14	61	113.1	79	108.2	26	88.2
15–17	125	376.0	175	408.0	74	464.5
18–24	308	434.5	305	402.0	220	581.5
Other Australians						
<12 months	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1–4	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
5–9	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
10–14	1,005	55.1	519	67.7	29	57.7
15–17	3,727	327.7	1,727	363.7	79	310.6
18–24	6,932	213.2	2,596	271.3	143	192.4

Table B10: Number and age-specific rates of assault related injury, by remoteness of usual residence, age group and Indigenous status, 2011–13

	Major cities		Inner & Outer regions		Remote & Very remote regions	
	Number	Rate	Number	Rate	Number	Rate
Indigenous						
<12 months	15	129.5	24	154.4	28	447.4
1–4	16	35.2	27	43.7	22	86.1
5–9	2	n.p.	7	9.5	20	60.2
10–14	36	66.7	45	61.6	82	278.0
15–17	104	312.9	165	384.6	232	1,456.2
18–24	379	534.7	611	805.3	1,318	3,483.8
Other Australians						
<12 months	79	18.5	47	34.0	2	n.p.
1–4	74	4.6	65	11.2	3	n.p.
5–9	50	2.6	33	4.5	2	n.p.
10–14	301	16.5	152	19.8	15	29.8
15–17	1,146	100.8	506	106.6	38	149.4
18–24	5,438	167.3	2,184	228.2	221	297.4

Glossary

Definitions in this Glossary contain, where applicable, an identification number from the Metadata Online Registry (METeOR). METeOR is Australia's central repository for health, community services and housing assistance metadata, or 'data about data'. It provides definitions for data for health- and community services-related topics, and specifications for related national minimum data sets (NMDSs) – such as the NMDSs that form the basis of this report. METeOR can be viewed on the AIHW website at <www.aihw.gov.au>. For further information on the terms used in this report, refer to definitions in the *National health data dictionary*, version 16 (AIHW 2012).

activity when injured: The type of activity being undertaken by a person at the time of injury. METeOR identifier: 391320.

acute: Having a short and relatively severe course.

acute care: Acute care is care in which the clinical intent or treatment goal is to:

- cure illness or provide definitive treatment of injury
- perform surgery
- relieve symptoms of illness or injury (excluding palliative care)
- reduce severity of an illness or injury
- protect against exacerbation and/or complication of an illness and/or injury which could threaten life or normal function
- perform diagnostic or therapeutic procedures. See **care type**. METeOR identifier: 270174.

acute care hospital: See **establishment type**.

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

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

care type: The care type defines the overall nature of a clinical service provided to an admitted patient during an episode of care. METeOR identifier: 491557.

episode of care: The period of admitted patient care between a formal or statistical admission and a formal or statistical separation, characterised by only one care type (see **care type and separation**). METeOR identifier: 491557 (Care type), METeOR identifier: 268956 (Episode of admitted patient care).

establishment type: Type of establishment (defined in terms of legislative approval, service provided and patients treated) for each separately administered establishment. METeOR identifier: 269971.

external cause: The environmental event, circumstance or condition as the cause of injury, poisoning and other adverse effect. METeOR identifier: 514295.

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

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

length of stay: The length of stay of a patient, excluding leave days, measured in days. Formula: LOS = Separation date minus Admission date minus Total leave days. The calculation is inclusive of admission and separation dates. METeOR identifier: 269982.

mode of admission: The mechanism by which a person begins an episode of care, as represented by a code. METeOR identifier: 269976.

principal diagnosis: The diagnosis established after study to be chiefly responsible for occasioning an episode of admitted patient care, an episode of residential care or an attendance at the health-care establishment. METeOR identifier: 514273.

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

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

rate ratio: The rate for one population divided by the rate of another.

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

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.
- ABS 2006. Statistical geography volume 1 – Australian Standard Geographical Classification (ASGC). ABS cat. no. 1216.0. Canberra: ABS.
- ABS 2011. Australian Statistical Geography Standard (ASGS): volume 5 – remoteness structure, July 2011. ABS cat. no. 1270.0.55.005. Canberra: ABS.
- ABS 2014. Estimates and projections, Aboriginal and Torres Strait Islander Australians, 2001 to 2026, April 2014. ABS cat. no. 3238.0. Canberra: ABS.
- AIHW (Australian Institute of Health and Welfare) 2011. Aboriginal and Torres Strait Islander child safety. Cat. no. IHW 50. Canberra: AIHW.
- AIHW 2012. National health data dictionary 2012 version 16. National health data dictionary no. 16. Cat. no. HWI 119. Canberra: AIHW.
- AIHW 2013a. Australian hospital statistics 2011–12. Health services series no. 50. Cat. no. HSE 134. Canberra: AIHW.
- AIHW 2013b. Indigenous identification in hospital separations data: quality report. Cat. no. IHW 90. Canberra: AIHW.
- AIHW 2014. Australian hospital statistics 2012–13. Health services series no. 54. Cat. no. HSE 145. Canberra: AIHW.
- AIHW: Pointer S 2013. Impact of improvements to Indigenous identification in hospital data on patterns of hospitalised injury. Injury research and statistics series 73. Cat. no. INJCAT 149. Canberra: AIHW.
- AIHW: Pointer S 2014. Hospitalised injury in children and young people 2011–12. Injury research and statistics series no. 91. Cat. no. INJCAT 167. Canberra: AIHW.
- AIHW: Pointer S 2015. Trends in hospitalised injury, Australia, 1999–00 to 2012–13. Injury research and statistics series no. 95. Cat. no. INJCAT 171. Canberra: AIHW.
- Berry JG, Harrison JE & Ryan P 2009. Hospital admissions of Indigenous and non-Indigenous Australians due to interpersonal violence, July 1999 to June 2004. Australian and New Zealand Journal of Public Health, 33(3):215–22.
- Clapham KF, Khavarpour F, Bolt RJ, Stevenson M & Su S. 2012. Researching the safety of Indigenous children and youth: an urban perspective. In: McCoy B, Stewart P & Poroch N (eds). Urban health: strengthening our voice, culture and partnerships. Canberra: AIATSIS [Australian Institute of Aboriginal and Torres Strait Islander Studies] Research Publications 47–58.
- Duke J, Wood F, Semmens J, Edgar DW, Spilsbury K, Hendrie D & Rea S. 2011. A study of burn hospitalizations for children younger than 5 years of age: 1983–2008. Pediatrics 127(4):e971–7.
- Eades SJ, Taylor B, Bailey S, Williamson AB, Craig JC & Redman S. 2010. The health of urban Aboriginal people: insufficient data to close the gap. Medical Journal of Australia: 193(9):521–4.

- Flavin MP, Dostaler SM, Simpson K, Brison RJ & Pickett W 2006. Stages of development and injury patterns in the early years: a population based analysis. *BMC Public Health* 6:187.
- Guthridge SL, Ryan P, Condon JR, Moss JR & Lynch J 2014. Trends in hospital admissions for conditions associated with child maltreatment, Northern Territory, 1999–2010. *Medical Journal of Australia* 201:162–6.
- Helps YLM & Harrison JE 2006. Hospitalised injury of Australia's Aboriginal and Torres Strait Islander people: 2000–02. Injury technical paper series no. 8. AIHW Cat. no. INJCAT 94. Adelaide: AIHW.
- Irie F, Lang J, Kaltner M, Le Brocque R & Kenardy J 2012. Effects of gender, Indigenous status and remoteness to health services on the occurrence of assault-related injuries in children and adolescents. *Injury* 43(11):1873–80.
- Ivers R, Clapham K, Senserrick T, Lyford M & Stevenson M 2008. Injury prevention in Australian Indigenous communities. *Injury* 39(5):S61–7.
- McGarry S, Girdler S, McDonald A, Valentine J, Wood F & Elliott C 2013. Paediatric medical trauma: the impact on parents of burn survivors. *Burns* 39(6): 1114–1121.
- MacInnes K & Stone DH 2008. Stages of development and injury: an epidemiological survey of young children presenting to an emergency department. *BMC Public Health* 8:120.
- Martin L, Rea S, McWilliams T & Wood F 2014. Hot ash burns in the children of Western Australia: how and why they happen. *Burns* 40(5):1030–2.
- Mitchell M & Gooda M 2015. Self-harm and help-seeking among Aboriginal and Torres Strait children and young people [online]. *Indigenous Law Bulletin* 8(17):24–9.
- Möller H, Falster K, Ivers R & Jorm L 2015. Inequalities in unintentional injuries between Indigenous and non-Indigenous children: a systematic review. *Injury Prevention* 21(e1):e144–52.
- NCCH (National Centre for Classification in Health) 2010. The international statistical classification of diseases and related health problems, 10th revision, Australian modification (ICD-10-AM), Australian Classification of Health Interventions (ACHI) and Australian Coding Standards (ACS), 7th edn. Sydney: University of Sydney.
- NPHP (National Public Health Partnership) 2005. The national Aboriginal and Torres Strait Islander safety promotion strategy. Canberra: NPHP.
- O'Donnell M, Nassar N, Jacoby P & Stanley F 2012. Western Australian emergency department presentations related to child maltreatment and intentional injury: population level study utilising linked health and child protection data. *Journal of Paediatric Child Health* 48(1):57–65.
- Soole R, Kölves K & De Leo 2014. Factors related to childhood suicides: analysis of the Queensland Child Death Register. *Crisis* 35(5):292–300.
- van Beeck EF, Branche CM, Szpilman D, Modell JH & Bierens JJ 2005. A new definition of drowning: towards documentation and prevention of a global public health problem. *Bulletin of the World Health Organization* 83(11):853–6.

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This report provides information about hospitalised injuries among Aboriginal and Torres Strait Islander children and young people (0 to 24 years). The most common specific cause of injury among Indigenous children and young people was a fall (24%). Assault was the leading cause of hospitalisation for Indigenous people aged 15–17 and 18–24 years.