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Reported injury mortality of Aboriginal and Torres Strait Islander peoples in Australia, 1997–2000

Yvonne LM Helps
James E Harrison

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**Reported injury mortality of
Aboriginal and Torres Strait
Islander people in Australia,
1997–2000**

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**Yvonne LM Helps
and
James E Harrison**

October 2004

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Australian Institute of Health and Welfare

Board Chair
Hon. Peter Collins, AM, QC

Director
Dr Richard Madden

Any enquiries about or comments on this publication should be directed to:

Yvonne Helps
Research Centre for Injury Studies
Flinders University of South Australia
GPO Box 2100,
Adelaide 5001, South Australia

Phone: (08) 8201 7602
email: Yvonne.Helps@flinders.edu.au

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Executive summary

Results from an exploratory analysis of the Aboriginal and Torres Strait Islander mortality data are presented in this technical report. This report, based on available recorded data, is intended to inform and enhance future statistical reports.

The quality of Aboriginal and Torres Strait Islander ascertainment differs between jurisdictions, complicating meaningful reporting for Australia as a whole, and small case numbers limit reporting for individual jurisdictions. Ascertainment also varies over time, complicating measurement of trends.

The approach adopted for this report is to report data for two regions. Jurisdictions in which ascertainment of Aboriginal and Torres Strait Islander status is thought to be relatively good (Western Australia, South Australia, Queensland and the Northern Territory) are called Region A in this report. Ascertainment of Aboriginal and Torres Strait Islander status is probably more complete in deaths data for Region A than for Region B (New South Wales, Victoria, the Australian Capital Territory and Tasmania). Uncertain quality of ascertainment and other data limitations necessitate cautious interpretation of findings for both regions.

There are differences and similarities between injury mortality rates for Aboriginal and Torres Strait Islander and other Australians, as calculated from reported data. Rates for Aboriginal and Torres Strait Islander Australians are almost uniformly much higher than for Other Australians. In Region A this pattern is seen for males and females, at all ages, and for nearly all major types of External cause of injury. Types of External cause for which Aboriginal and Torres Strait Islander rates are highest in relation to rates for other Australians include interpersonal violence (Fatal assault) and Burns. Some similarities are that Transport and Intentional self-harm (Suicide) are the most common External causes of injury death for both Aboriginal and Torres Strait Islander and other Australians, and that male rates are higher than female rates.

The population of Aboriginal and Torres Strait Islander Australians has a younger age distribution than that of the remainder of the population, and injury mortality varies with age. When allowance is made for the difference in age distribution (by direct standardisation), the rate for Aboriginal and Torres Strait Islander Australians is 2.8 times higher than for the rest of the population in Region A.

Aboriginal and Torres Strait Islander Australians are more likely to live in remote areas than are other Australians, and injury rates differ with remoteness. Further adjustment of injury mortality rates to take account of different remoteness distributions of these sub-populations (by direct standardisation) reduced the excess rate of death due to External causes for Aboriginal and Torres Strait Islander persons living in Region A from an age-adjusted rate ratio of 2.8, to an age and remoteness-adjusted ratio of 1.9.

Existing mortality data are sufficient to show that Aboriginal and Torres Strait Islander Australians experience much higher rates of injury mortality than does the Australian population as a whole. The data also provide some insight into patterns of occurrence, which can inform injury prevention.

Further work is required to enable reliable rate estimates of Aboriginal and Torres Strait Islander injury mortality, for Australia as a whole, and for regions and remoteness zones. An important aim is to achieve estimates that are sufficiently reliable to enable meaningful monitoring of trends over time.

Abbreviations

ABS	Australian Bureau of Statistics
ACS	Automated Coding System
AIHW	Australian Institute of Health and Welfare
ARIA+	Accessibility/Remoteness Index for Australia (+ version)
ASGC	Australian Standard Geographical Classification
ATSIIPAC	Aboriginal and Torres Strait Islander Injury Prevention Action Committee
CD	Collection District
CI	Confidence Intervals
DHA	Department of Health and Ageing
DHAC	Department of Health and Aged Care
ERP	Estimated Resident Population
GISCA	National Key Centre for Social Applications of Geographical Information Systems
ICD-9	International Classification of Diseases ninth revision
ICD-10	International Classification of Diseases tenth revision
IES	Indigenous Enumeration Strategy
NIPP	National Injury Prevention Plan
RRMA	Rural, Remote and Metropolitan Areas classification
SIPP	Strategic Injury Prevention Partnership
SLA	Statistical Local Area
SPSS	Statistical Package for Social Sciences
WHO	World Health Organisation
YPLL	Years of Potential Life Lost

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1 Introduction

1.1 Purpose

Previous reports have shown that rates of mortality due to injury and poisoning are considerably higher for Aboriginal and Torres Strait Islander Australians than for the remainder of the population (ABS 2003; ABS/ AIHW 2001; Moller et al. 1996; Harrison & Moller 1994; Cunningham & Paradies 2000).

This technical report presents results of an exploratory analysis of reported Aboriginal and Torres Strait Islander injury mortality data. The findings will inform future statistical reporting.

The purpose of this report is to examine technical aspects of describing injury mortality among Aboriginal and Torres Strait Islander Australians. It explores and reports on variations in injury mortality patterns over location, remoteness and types of External cause of injury, as well as with age and sex.

Injury mortality for Aboriginals and Torres Strait Islanders is shown in relation to mortality for other Australians.

The aim of this work is to examine data as reported and to investigate appropriate analyses in the study of data which is known to have considerable limitations. These include:

- Incomplete ascertainment of Aboriginal and Torres Strait Islander status in deaths data, and variation in identification over time and between places, and
- Limited validity and reliability of Aboriginal and Torres Strait Islander population estimates, used as denominators for rates.

1.2 Background

The Strategic Injury Prevention Partnership (SIPP) group of the National Public Health Partnership developed the National Injury Prevention Plan, with priorities for 2001 to 2003 (DHAC 2001).

Aboriginal and Torres Strait Islander Australians were named in the Plan as a priority population. The Plan foreshadowed

‘A complementary Plan ... to address the priority issue of injury prevention for Indigenous Australians. This approach has been adopted to enable a more intensive process of consultation to take place with representative groups to ensure that the particular issues and needs experienced by Indigenous Australians are addressed. The Plan for Indigenous Australians will propose interventions for immediate attention, as well as addressing infrastructure and capacity building’ (DHAC 2001 p. 3).

Development of an injury prevention policy for Aboriginal and Torres Strait Islander people in Australia is being undertaken by SIPP in close collaboration with the Aboriginal and Torres Strait Islander Injury Prevention Action Committee (ATSIPAC), another group formed under the National Public Health Partnership.

This report is intended to provide part of the information needed to underpin these initiatives.

2 Data and methods

2.1 Introduction

This report examines patterns of injury mortality for Aboriginal and Torres Strait Islander persons in Australia. Analyses are by sex, age, total and selected External causes, and remoteness of residence, for Australia as a whole and for two reporting regions. Comparisons are also made between Aboriginal and Torres Strait Islander Australians and the rest of the population. Uncertainty concerning comparability of data over time precludes meaningful time series analysis.

The following section describes the data and population sets, and methods used to examine mortality patterns. Methodological and data issues are also addressed.

2.2 Data

Cases

This project is based on national mortality data, drawn from the Australian Bureau of Statistics (ABS) mortality database. The subset referred to in this report comprises deaths registered in the four years 1997–2000 for which the ‘Underlying Cause of Death’ was coded as an External cause of injury or poisoning (i.e. ICD-10 V01–Y98).

For the purposes of this report we have distinguished two groups: persons identified or self-identified as Aboriginal or Torres Strait Islander, and all other persons usually resident in Australia. The latter group (‘other Australians’) includes persons recorded as not being Aboriginal, as not being Torres Strait Islander, or as not being Aboriginal and Torres Strait Islander, and persons for whom information on Aboriginal and Torres Strait Islander status was not provided, or was unavailable for any reason.

Detailed explanation of data issues relating to Aboriginal and Torres Strait Islander deaths data is available in other reports (Harrison et al. 2001; Steenkamp 2000).

The decision to aggregate the data for several years was made on the basis of the relatively small numbers of injury deaths in the Aboriginal and Torres Strait Islander group. Reported cases of Aboriginal and Torres Strait Islander mortality due to External causes are low in comparison to those recorded for other Australians. When examining recorded cases by quality of ascertainment region, selected External cause, sex, or by area of remoteness, case numbers can be exceedingly small, or null values.

Populations

Population projections from the ABS were used to estimate Aboriginal and Torres Strait Islander usual resident populations for individual states, and for the jurisdictions grouped as Region A (South Australia, Northern Territory, Western Australia and Queensland), and Region B (New South Wales, Victoria, Australian Capital Territory and Tasmania). Two projections were made by the ABS. In keeping

with Australian Institute of Health and Welfare (AIHW) practice, we have used the low series, which does not assume further increase in propensity to identify as Aboriginal or Torres Strait Islander after the 1996 Census. The projection series was produced by the ABS in 1998, based on 1996 Census data, and projected forward to 2006 (ABS 1998). The total person counts for the years 1997–2000 were summed for each jurisdiction, and summed with the other jurisdictions for both regions. A table summarising the projected populations is available in Appendix B (Table B2.1).

Section 3.4 (*Remoteness*) required population values (Aboriginal and Torres Strait Islander and Other) by Australian Standard Geographical Classification (ASGC) remoteness zones, as well as by jurisdiction, sex and age-group. The population projections described above are not available by remoteness zone. Hence, for this section of the report, we have used population data from the 2001 Census. These data are summarised in Appendix B, Tables B2.2–B2.13.

While differences between these two sets of population estimates exist, they are small for large regions – for example, less than 1% for person estimates for Regions A and B. Nevertheless, rates and rate ratios in Section 3.4 should not be compared with those appearing elsewhere in the report.

2.3 Ascertainment and reporting regions

Incomplete and probably varying ascertainment of Aboriginal and Torres Strait Islander cases in deaths data, combined with uncertain population estimates, presents a major challenge for projects such as this. This section describes the problem and the approach taken in response to it.

2.3.1 Background

This report is largely dependent on a data item in national death records, which states whether each deceased person was Aboriginal, Torres Strait Islander, both or neither. It also depends on information on Aboriginal and Torres Strait Islander status in population data collections.

The reliability and completeness of Aboriginal and Torres Strait Islander identification in these sources is problematic. The nature and extent of the problem is discussed elsewhere (Harrison et al. 2001).

It is commonly believed that this problem is less severe in some jurisdictions. The Northern Territory, Western Australia and South Australia have been regarded as having relatively good ascertainment for some time, and a similar case has been made for Queensland from 1997 onwards (ABS/AIHW 1999; Cunningham 1998; Australian Indigenous Health *InfoNet* 2003).

ABS estimates of coverage of Aboriginal and Torres Strait Islander deaths, by jurisdiction, are presented in Tables 2.1 and 2.2. Estimated coverage of Aboriginal and Torres Strait Islander deaths (based on the 1996 Census) justifies the inclusion of Queensland among jurisdictions for which ascertainment is relatively complete (ABS 2002b).

Table 2.1: Estimated completeness of identification of Aboriginal and Torres Strait Islander people in death registrations, based on 1991 Census, by jurisdiction and year of registration, Australia 1996–2001

Year of registration	Percentage by jurisdiction								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
1996	34	43	42	95	92	..	50	87	59
1997	16	80	85	89	101	9	36	119	74
1998	84	104	94	95	95	22	27	106	92
1999	78	107	82	86	86	18	50	101	85
2000	83	88	82	99	105	13	..	111	90
2001	83	74	85	80	89	51	..	104	85

Based on 1991 Census Source: (ABS 2002b).

Table 2.2: Estimated completeness of identification of Aboriginal and Torres Strait Islander people in death registrations, based on 1996 Census, by jurisdiction and year of registration, Australia 1996–2001

Year of registration	Percentage by jurisdiction								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
1996	19	23	29	75	62	-	28	73	39
1997	9	43	58	70	68	4	20	100	49
1998	47	56	63	74	64	10	20	100	61
1999	43	59	55	68	57	8	27	83	56
2000	46	48	54	77	69	6	-	92	59
2001	45	41	56	62	59	22	-	85	55

Based on 1996 Census Source: (ABS 2002b).

These estimates of coverage are for all-causes mortality. Coverage for particular causes might differ from all-causes coverage. For example, deaths from injury and poisoning are mostly sudden and unexpected. Also, they are normally reported to police and investigated by a coroner. These characteristics of injury deaths might affect the likelihood that Aboriginal and Torres Strait Islander cases will be recognised as such. We are not aware of published evidence of this.

The method of Census enumeration for Aboriginal and Torres Strait Islander peoples also differed somewhat in the four jurisdictions mentioned above, compared to the rest of Australia. An Indigenous Enumeration Strategy (IES) was implemented in all states to assist in Census collection.

The IES promoted an awareness of, and encouragement to participate in, the Census. The most concerted application of the IES was in nominated discrete communities where language, culture or remoteness would cause impediments. Of the 1,223 identified discrete Indigenous communities in Australia in 1999, 1,153 were located in NT, SA, WA and Queensland (ATSIC/CRCATH 2002).

It has been estimated that in 1996, about 20% of the Aboriginal and Torres Strait Islander population lived in such communities, and that these communities were located mostly in the remote areas of each jurisdiction (ABS 1999). In the other jurisdictions, where no discrete communities were identified, no attempt at special assistance in enumeration of Aboriginal and Torres Strait Islander persons was made unless a specific difficulty was recognised.

2.3.2 Reporting regions

The aim of this project is to study and evaluate the robustness of available information on Aboriginal and Torres Strait Islander injury mortality throughout Australia.

Available evidence, though limited, indicates that case ascertainment of Aboriginal and Torres Strait Islander status is incomplete in all jurisdictions, or nearly all, and differs greatly between jurisdictions. Hence, overall values for the whole of Australia can be expected to be underestimates, and reporting solely at this level would be unsatisfactory.

An approach used in some other reports is to restrict attention to the three or four jurisdictions for which Aboriginal and Torres Strait Islander identification appears to be most complete. As indicated in the previous section, these tend to be the Northern Territory, Western Australia, South Australia and (in the period covered by this report) Queensland.

Restriction of attention to the jurisdictions for which case ascertainment is probably most complete would go some way towards avoiding misleadingly low overall rate estimates, but it would not achieve the desired national scope. About two fifths of Australians identified as Aboriginal or Torres Strait Islanders live in the four jurisdictions which are commonly regarded as having the poorest ascertainment of Aboriginal and Torres Strait Islander status for mortality data. These jurisdictions are New South Wales, Victoria, Tasmania and the Australian Capital Territory. In the four-year period 1997–2000, almost one third of all External causes deaths in Australia which were identified as being deaths of Aboriginal and Torres Strait Islander people, involved residents of these jurisdictions.

Hence, the mortality experience of over one third of Aboriginal and Torres Strait Islander Australians and about one third of recorded injury deaths of Aboriginal and Torres Strait Islander Australians would be ignored if the poorer ascertainment jurisdictions were excluded.

We have opted to report data for all jurisdictions, but have used an approach that recognises differing case ascertainment. Small case numbers and related factors are reasons against reporting each state and territory separately. Instead, we combined the eight Australian jurisdictions into two groups on the basis of likely quality of case ascertainment. The Northern Territory, Western Australia, South Australia and Queensland are combined as reporting Region A. New South Wales, Victoria, Tasmania and the Australian Capital Territory are reporting Region B. These regions are also geographic, Region B comprising the south-east part of Australia (Figures 2.1 and 2.2).

2.3.3 Statistical overview of reporting regions

Table 2.3 presents summary data for these two groups of jurisdictions, and for Australia as a whole (see Chapter 3 for details).

As noted above, ascertainment of Aboriginal and Torres Strait Islander status in injury mortality data is likely to have been incomplete in all, or nearly all, jurisdictions in the period covered by this report. The likely extent of under-ascertainment differs considerably (see Section 2.3.1).

While ascertainment is likely to be incomplete in both regions, it appears to be more severe in Region B. We have used notes in the text, underscored by typographic means (shading and font size), to emphasise the differences between data for Region A and Region B, and advise cautious interpretation.

Table 2.3 Total deaths due to External causes registered 1997–00, Aboriginal and Torres Strait Islander and other Australians by sex: Region A, Region B and Australia

All External Causes of Injury	Region A			Reported Region B			Australia		
	count	rate*	ratio [†]	count	rate*	ratio [†]	count	rate*	ratio [†]
Indigenous males	671	159.0	2.8	210	82.7	1.6	881	129.2	2.4
Other Australian males	8,308	57.8		13,111	52.1		21,419	54.2	
Indigenous females	276	61.3	3.2	75	26.0	1.5	351	47.6	2.6
Other Australian females	3,580	19.0		5,940	17.8		9,520	18.2	
Indigenous persons	947	108.4	2.8	285	53.0	1.5	1,232	86.9	2.4
Other Australian persons	11,888	38.6		19,051	34.9		30,939	36.3	

*Annual average rates per 100,000 population, age-standardised (direct method).

[†] Ratio of age-standardised rate for Indigenous: Other males to males, females to females and persons to persons in that region.

Region A comprises SA, NT, WA and Qld. Region B comprises NSW, Vic, Tas and ACT.

Other Australian counts exclude a total of 357 deaths recorded as other territories, overseas, unknown or not stated and 10 for which age was not stated.

Region A is the reported usual place of residence of about 61% of Australia's Aboriginal and Torres Strait Islander population (Appendix B, Table B2.1).

About 77% of all Aboriginal and Torres Strait Islander injury deaths identified in Australia during the period 1997–2000 occurred in Region A (Table 2.3). The fraction of all identified Aboriginal and Torres Strait Islander deaths that were injury deaths was similar in both regions. However, estimates of Aboriginal and Torres Strait Islander injury mortality rates were about twice as high for the jurisdictions included in Region A as for Region B (Table 2.3).

In contrast, injury mortality rates for the non-Indigenous population differed much less between the two regions. The rate for persons in Region A was just over 4% higher than that in Region B.

These differences are likely to be due, at least in part, to better identification of Aboriginal and Torres Strait Islander status in the four selected jurisdictions than elsewhere (ABS/AIHW 2001; Australian Indigenous HealthInfoNet). Differences from place to place might also influence the extent to which the set of people who are identified as Aboriginal and Torres Strait Islander in population data is the same as the set of people who would be identified as being Aboriginal and Torres Strait Islander if they die because of an injury.

However, the differences in rate estimates between Region A and Region B might also reflect real differences in injury mortality, perhaps related to differences in the

circumstances of Aboriginal and Torres Strait Islander (and perhaps other) people in various parts of Australia. Examination of selected External causes of injury mortality (Section 3.3) and geographical remoteness (Sections 3.4 and 3.5) was undertaken partly to investigate this difference.

2.3.4 Estimated Aboriginal and Torres Strait Islander ascertainment by reporting region

For reasons outlined in section 2.3.2, we have reported data for both regions, despite probable under-ascertainment of Aboriginal and Torres Strait Islander cases.

This section presents the limited data available on the likely degree of under-ascertainment of Aboriginal and Torres Strait Islander deaths in each of the reporting regions, and provides indicative estimates.

Data on ascertainment of Aboriginal and Torres Strait Islander status for deaths is available for all-causes mortality (Tables 2.1 and 2.2), but not for External causes overall, nor for specific types of External cause. Ascertainment fractions might differ for these types of deaths. For example, most injury deaths are deaths registered by a coroner, and deaths registered by a coroner are the subject of administrative processes that differ from those applicable to other deaths. These might result in better or worse ascertainment of Aboriginal and Torres Strait Islander status. We are aware of no published evidence on the relative quality of Aboriginal and Torres Strait Islander ascertainment for deaths certified by coroners. Similarly, ascertainment might differ between types of deaths certified by a coroner. For example, deaths in which (say) homicide is suspected might typically be the subject of different and more intense investigation than (say) most drug overdose deaths. Such differences might influence the reliability and completeness of the ascertainment of Aboriginal and Torres Strait Islander status.

If reliable evidence on these matters were available to us, then we would use it in our analysis. In the absence of more specific information on ascertainment, in this section we have used the data in Tables 2.1 and 2.2 to adjust numbers of total reported injury deaths of Aboriginal and Torres Strait Islander people, and to calculate rates based on those adjusted values.

The state and year-specific ascertainment proportions in Tables 2.1 and 2.2 were applied to a comparable table of injury deaths (Table 2.4), reported as being of Aboriginal and Torres Strait Islander persons, to derive case counts adjusted to allow for these estimates of under-ascertainment. The resulting adjusted counts were summed to produce totals for Region A and Region B. The additional injury deaths thus counted as being of Aboriginal and Torres Strait Islander persons were deducted from the non-Indigenous totals. Ratios of Adjusted to Reported case numbers were calculated (Table 2.5).

The ratios of Adjusted to Reported cases presented in Table 2.5 differ considerably between regions, and according to which set of Census-based estimates is used. Note that all of the ratios have values above 1.0, and so they all imply at least some under-ascertainment of Aboriginal and Torres Strait Islander status.

If reliable estimates of under-ascertainment of Aboriginal and Torres Strait Islander injury mortality were available, they could be used to adjust observed case counts throughout the report. Reliable estimates are not presently available. Adjustment on the basis of unreliable estimates of ascertainment would compound the uncertainty of

the resulting counts and rates. Accordingly, adjustments of the type demonstrated in this section have not been applied elsewhere in the report.

The large size of the adjustments shown in this section underscores the need to interpret values in the report cautiously. It is particularly important to recognise that differences in ascertainment may account for much of the difference in observed rates between reporting Regions A and B.

In summary, Aboriginal and Torres Strait Islander injury case ascertainment is probably incomplete for both reporting regions, though more so for Region B than for Region A. We advise caution in interpreting case counts for both regions, as both are likely to be incomplete. We advise special caution in comparing counts (or rates) for the two regions because ascertainment is probably worse for Region B than for Region A.

Table 2.4: Recorded case counts for Aboriginal and Torres Strait Islander people in death registrations, by jurisdiction and year of registration, Australia 1997–2000

Year of registration	Numbers of Aboriginal and Torres Strait Islander deaths								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
1997	11	9	81	48	28	..	..	56	234
1998	73	16	105	62	31	..	..	76	364
1999	71	26	76	60	21	..	..	55	311
2000	58	18	79	86	26	..	..	56	323
Total	213	69	341	256	106	..	..	243	1,232

.. 3 or fewer.

Table 2.5: External cause deaths of Aboriginal and Torres Strait Islander persons 1997–2000: reported counts and counts adjusted according to estimates of ascertainment

1997–00	Indigenous Region A	Indigenous Region B
Reported cases	947	285
Estimated cases according to ABS estimates based on 1991 Census (Table 2.1)	1,005	414
<i>Ratio of Estimated to Reported cases</i>	<i>1.1</i>	<i>1.4</i>
Estimated cases according to ABS estimates based on 1996 Census (Table 2.2)	1,377	757
<i>Ratio of Estimated to Reported cases</i>	<i>1.5</i>	<i>2.6</i>

2.4 Other methodological issues

2.4.1 Terminology

We have used the term ‘Aboriginal and Torres Strait Islander’ to refer to persons identified, or self-identified, as such in Australian deaths data and population data collections. Aboriginal and Torres Strait Islander is our preferred term, and is used for all table and chart headings, and where appropriate in the text. In light of space restrictions and in the interests of readability, the term Indigenous is also used, particularly within tables and charts.

We have not reported Aboriginal, and Torres Strait Islander groups separately because of the very small numbers of deaths where the deceased person is recorded as being a

Torres Strait Islander, and the uncertain completeness of identification. For example, in the year 2000, of 140 External cause deaths recorded as being 'Aboriginal and Torres Strait Islander', only 3 were recorded as Torres Strait Islander persons, and only 1 person was recorded as being of both Aboriginal and Torres Strait Islander origin.

2.4.2 Calculation of rates

Crude rates were calculated by multiplying four-year case counts for male, female and persons by 100,000, and dividing the result by the sum of the corresponding Estimated Resident Population (ERP) for the same four years. The ERPs were sourced from the ABS, as described above.

Age-standardised rates for Aboriginal and Torres Strait Islander and other populations were calculated by the direct method, using the Australian population in 1991 as the reference. All rates are expressed per 100,000 population.

2.4.3 Methods used to standardise rates

In this report we calculated age-standardised rates mainly using the direct method. We also applied the Standardised Mortality Ratio (SMR) method to some of the data in this report, to enable assessment of whether these methods would produce materially different results. Data for Region A and Region B, for selected External causes (All External causes, Poisoning by drugs, and Assault) were standardised using the indirect (SMR) method, and compared with the directly standardised rates. The pattern of rates for both methods of standardisation was similar for each selected External cause, by region (see Appendix A, Figures A1.1–A1.6). We also compared the pattern of age-specific rates in plausible reference populations. Age profiles were similar between the Region A total population and Region B total population.

Patterns of values relevant to our analyses (e.g. by ARIA zone) presented in terms of directly standardised rates were very similar to patterns of SMRs. The small differences would not materially affect the inferences we have based on the data.

2.4.4 Geographic allocation of cases

Place of usual residence as recorded on death certification was the basis for geographic allocation of the case data. Note that deaths are normally registered in the state or territory in which they occur. This is not always the place of usual residence. That is, the data illustrate mortality by patterns of residence, not geographic location of mortality caused by injury. This distinction is discussed further in Section 4.2.

In this report, rates and case counts for a particular state or territory (or for a group of them), include deaths of persons usually resident in the specified jurisdictions, whether the death occurred there or elsewhere in Australia. Conversely, the rates and counts for a jurisdiction exclude deaths registered there of persons usually resident somewhere else.

In keeping with this approach, deaths due to External causes of persons whose usual residence was recorded as being in Other territories, Overseas, Unknown or Unstated were excluded. None of these excluded cases were recorded as being Aboriginal and Torres Strait Islander persons.

Deaths outside Australia of persons usually resident in Australia were not included.

2.4.5 Year of death registration

Cases in this report are deaths due to external causes that were registered in the period 1 January 1997 to 31 December 2000. In this four-year period, 1,232 external causes deaths were registered where the person was recorded as being Aboriginal and Torres Strait Islander, and 31,306 external causes deaths were registered where the person was recorded as being non-Indigenous, or where Aboriginal and Torres Strait Islander status was unknown or not stated.

This set of deaths is similar to, but not identical with, external causes deaths that occurred in the period 1 January 1997 to 31 December 2000, These numbered 1,253 (Aboriginal and Torres Strait Islander) and 31,154 (other), based on deaths that had been registered by the end of 2002.

The difference arises because a period of time elapses between the occurrence and registration of a death. Use of date of death, instead of date of registration, would have increased the number of Aboriginal and Torres Strait Islander cases considered by about 1.7%, and decreased the number of other cases by about 0.5%.

The aggregation of four years data reduced the effect of the choice of date for case definition. Considering the single year 2000, for example, use of date of death rather than date of registration would have increased the Aboriginal and Torres Strait Islander case count by 3.7% and the count of other cases by 1.0%.

2.4.6 Remoteness

The Accessibility/Remoteness Index for Australia (ARIA+ version) used by the ABS was developed by GISCA (National Key Centre for Social Applications of Geographical Information). ARIA+ supersedes ARIA (first released in 1999), and is designed to provide an alternative to the index of Rural, Remote and Metropolitan Areas classification (RRMA).

ARIA+ is the basis for the ASGC Remoteness Structure, which was introduced as part of the 2001 edition of the ABS Australian Standard Geographical Classification (ABS 2001). ARIA+ gives precision to the term 'remoteness', defining areas lying outside capitals and major cities in terms of road distance accessibility to just over 200 service centres. Each service centre is assigned to one of five categories, determined by the population at that place. The remoteness index is derived in this manner:

'For each locality, the distance to each of the five categories of service centre is converted to a ratio to the mean. To remove the effect of extreme values, a threshold of 3 is applied to each component and then the five component index values are summed. This produces a continuous variable with values between 0 (high accessibility) and 12 (high remoteness). Index values for each of the 11,340 populated localities are then interpolated to produce an index value for 1km grids and averages calculated for larger areas such as postcodes or SLAs' (Glover & Tennant 2003).

The version of the ASGC Remoteness Structure used for this report divides Australia, at the level of census Collection Districts (CDs), into groupings of average levels of remoteness, based on geography. The resulting zones are named in relation to degree of remoteness, and include a zone for migratory persons. The zones are:

- 0 Major cities of Australia
- 1 Inner regional Australia
- 2 Outer regional Australia
- 3 Remote Australia
- 4 Very remote Australia
- 5 Migratory

Not all jurisdictions have areas in all ASGC Remoteness zones. For example, the Australian Capital Territory comprises only zones 0 and 1, while the Northern Territory does not have any zones 0 and 1, and Tasmania does not include zone 0. Victoria does not include zone 4. Figure 2.1 shows the geographical distribution of ASGC zones 0-4, indicating the relative difference in the proportion of Very Remote to Major Cities zones.

Figure 2.2 shows the distribution of Aboriginal and Torres Strait Islander persons, according to the 1996 Census (ABS 2002a). As described in Australia Now Year Book 2002 (ABS 2002a), about 90% of the population of Aboriginal and Torres Strait Islander Australians is spread over 25% of the land mass. In contrast, the same proportion of other Australian persons is concentrated in only 2.6% of the land and mainly in coastal areas, whereas Aboriginal and Torres Strait Islander Australians are less urbanised, and dwell in the more remote regions. Population data by remoteness zones for Aboriginal and Torres Strait Islander and other Australians is presented in Appendix B, Tables B2.2-B2.13. Variation of injury mortality by Remoteness zones is explored in Section 3.4.

Figures 2.1 and 2.2 also show the two regions introduced in Section 2.3.2, data for which are distinguished in many parts of this report.

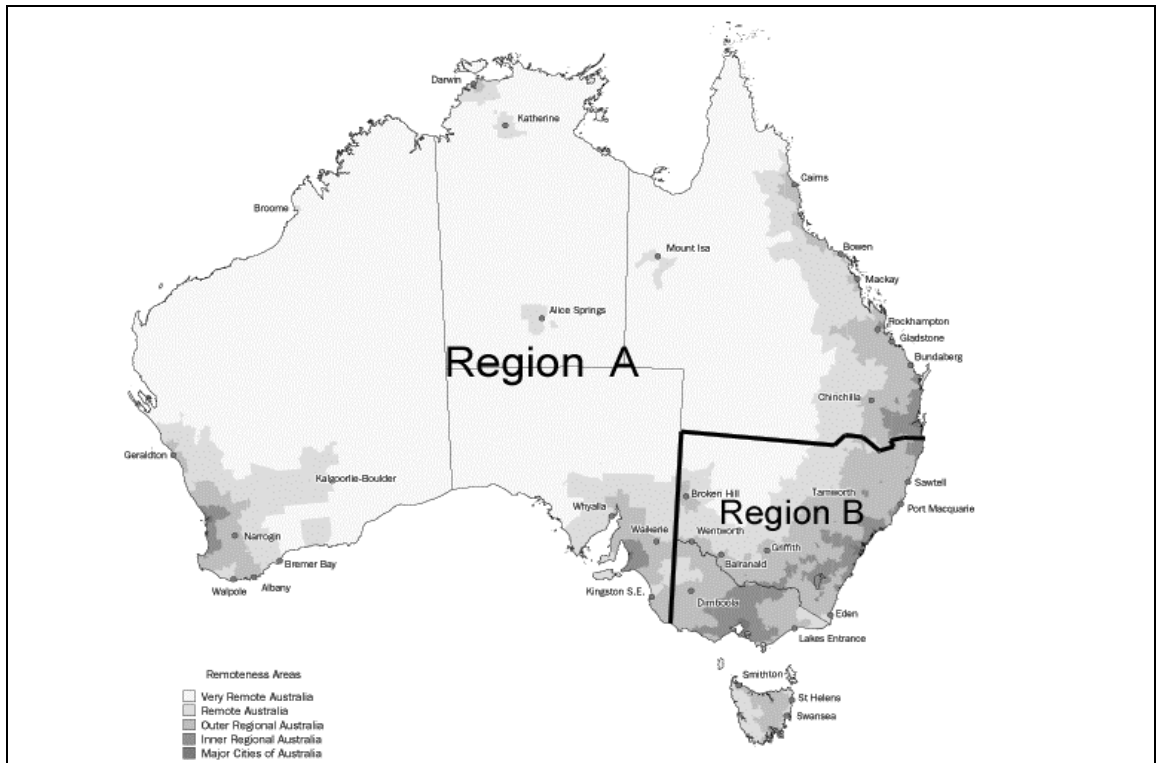


Figure 2.1 Distribution of ASGC zones 2003, (modified)¹

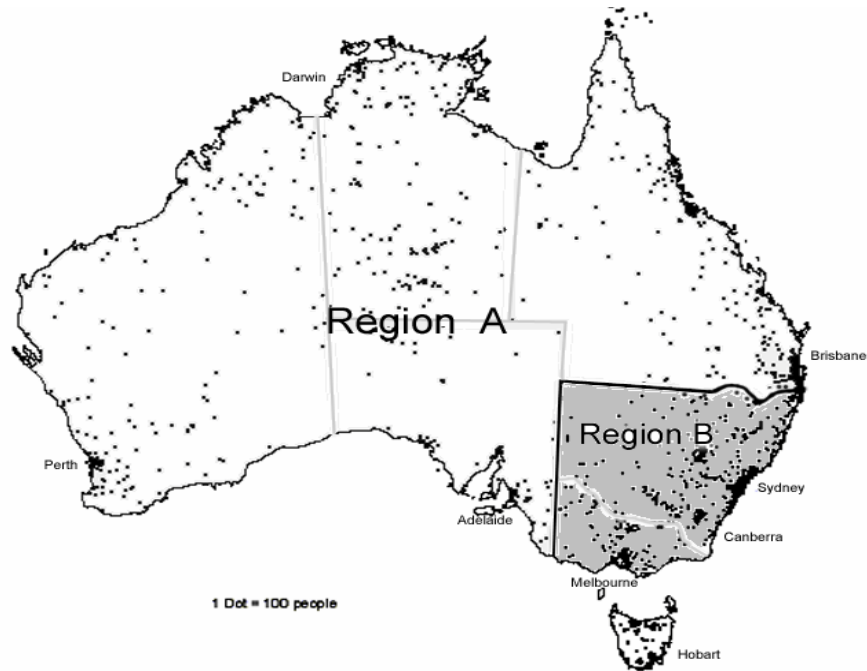


Figure 2.2 Distribution of usual place of residence of Aboriginal and Torres Strait Islander persons in 1996 (modified)²

¹ Modified to show reporting Regions A and B (see Section 3.3). Source: personal correspondence, Alec Bamber, ABS, Geography Section, May 2003.

² Modified to show reporting Regions A and B (see Section 3.3). Source: (ABS 2001), Map 5.9.

2.4.7 Confidence Intervals (CIs)

This report uses a formula for Confidence Interval calculation that is appropriate for adjusted rates (Anderson & Rosenberg 1998). Confidence Intervals in Sections 3.3 and 3.4 were produced using that method.

2.4.8 Years of Potential Life Lost (YPLL)

This report has applied the method used by the Australian Bureau of Statistics for calculating years of potential life lost (YPLL), with one change. The ABS estimated YPLL for ages 1–75 years, inclusive. We have calculated YPLL for ages 0–74 years, inclusive. The methodology is described in the following extract from the ABS publication *3303.0 Causes of Death Australia 1999* (ABS 2000) with our amendments in italics.

Estimates of YPLL were calculated for deaths of persons aged *0–74 years (i.e. <75 years)* years based on the assumption that deaths occurring at these ages are untimely. A number of variables are used in these calculations, as described below.

YPLL is derived from:

$$YPLL = \sum_x (D_x (75 - A_x))$$

Where:

A_x = adjusted age at death. As age at death is only available in completed years, the midpoint of the reported age was chosen (e.g. age at death 34 years was adjusted to 34.5).

D_x = registered number of deaths at age x due to a particular cause of death.

Mean YPLL (before 75 years) indicates the average duration, in years, by which deaths in a group of interest are untimely. Mean YPLL (before 75 years) was calculated as the sum of YPLL (before 75 years) for a cause group of interest, divided by the total number of deaths in the group, irrespective of age at death.

2.4.9 Software

Most data management and calculations were by means of SPSS v 11.5 and Microsoft Excel 97.

Certain values were derived from source data via a copy of the HealthWIZ application (Prometheus Ltd) into which data had been loaded and processed according to our specifications. These are case counts for the whole of Australia, Regions A and B, and ASGC remoteness zones.

3 Findings

3.1 Introduction

In this section we present recorded Aboriginal and Torres Strait Islander (Indigenous) injury mortality in terms of sex, age at death, and type of External cause of injury. We report numbers of deaths, death rates, and ratios of Aboriginal and Torres Strait Islander injury death rates to equivalent rates for persons not recorded as being Aboriginal and Torres Strait Islander.

Recorded Aboriginal and Torres Strait Islander injury mortality is reported for Australia as a whole, and for two reporting regions. The regions are made up of states and territories grouped according to likely completeness of ascertainment of Aboriginal and Torres Strait Islander status in mortality data. Later sections report injury occurrence by geographical areas, and by areas grouped according to remoteness.

3.2 Overview of External causes of mortality

Total deaths registered in Australia for the 1997–2000 period numbered 512,895, of which 32,528 (6.3%) were attributed to an External cause (Table 3.1). Data for Australia as a whole show that more than 1,200 persons (3.8% of all External causes deaths) recorded as being Aboriginal and Torres Strait Islander were registered as having died due to an External cause in that period (Table 3.1). Most were males (72%). Deaths due to an External cause made up 15.6% of identified Aboriginal and Torres Strait Islander deaths from all causes in this period.

For Australia, the Aboriginal and Torres Strait Islander male to female rate ratio was 2.5:1 (Table 3.1), while the other Australians male to female rate ratio was 2.3:1.

The age adjusted rate of death due to External causes was over twice as high for persons identified as Aboriginal and Torres Strait Islander as it was for other persons in Australia (rate ratio 2.4:1).

The rates and case numbers underlying tables and figures in Section 3.2 are in Appendix B, Tables B2.14–B2.27.

Table 3.1: Deaths recorded as being Aboriginal or Torres Strait Islander persons due to total External causes registered 1997–00, selected indicators: Australia

Indicators	Indigenous deaths			Ratios: male to female
	Males	Females	Persons	
Number of deaths (total in 4 years)	881	351	1,232	2.5
Percentage of all Indigenous deaths	19.5	10.4	15.6	
Indigenous deaths due to External causes as % of all injury deaths	3.9	3.5	3.8	
Crude rate/100,000 population*	109.7	42.6	75.8	2.6
Direct age standardised rate/100,000 population*	129.2	47.6	86.9	2.7
Ratio of age standardised rates: Indigenous:other	2.4	2.6	2.4	
Mean years potential life lost (YPLL [†]) per death	44.7	44.1	44.5	

*Rates are annual averages over the four years 1997–2000. Case numbers are four-year totals.

[†]Calculation of YPLL before age 75 years is described in section 2.4.8

3.2.1 Summary statistics

Table 3.2 summarises case numbers, age-adjusted directly standardised rates and rate ratios for eleven types of External cause of death in Australia in the period 1997 to 2000.

Table 3.2: Deaths recorded as being Aboriginal or Torres Strait Islander persons, Australia 1997–00: case counts, rates and rate ratios by type of External cause and sex

External Cause of Injury and ICD-10 code	Males			Females			Persons		
	count	rate*	ratio†	count	rate*	ratio†	count	rate*	ratio†
Unintentional injury									
Land transport (Transport) V01–V89	224	33.3	2.4	100	12.2	2.3	324	22.3	2.3
Drowning W65–W74	44	6.1	3.2	23	2.7	5.4	67	4.3	3.6
Poisoning—drugs X40–X44	66	9.0	1.0	24	3.2	0.9	90	6.0	1.0
Poisoning—other substances X45–X49	9	1.1	2.8	5	0.7	7.0	14	0.9	3.0
Falls W00–W19, X59	27	7.1	2.4	19	3.5	1.9	46	5.1	2.2
Fire, burns, scalds X00–X19	14	2.6	4.3	15	3.6	12.0	29	3.1	6.2
Other unintentional injury	116	17.7	3.5	37	4.7	3.9	153	10.9	3.4
Intentional self harm (Suicide) X60–X84, Y87.0	276	37.1	1.8	55	7.0	1.3	331	21.6	1.6
Intentional injury, inflicted by another person (Fatal assault) X85–Y09, Y35, Y36, Y87.1, Y89.0, Y89.1	89	13.0	3.9	66	8.6	5.4	155	10.7	4.3
Intentional injury—undetermined intent Y10–Y34, Y87.2	14	2.0	2.9	2	0.3	1.0	16	1.1	1.8
Injury related to medical/surgical care Y40–Y84, Y88.0–Y88.3	2	0.3	0.8	5	1.2	4.0	7	0.8	2.0
Total External causes	881	129.2	2.4	351	47.6	2.6	1,232	86.9	2.4

* Annual average rates per 100,000 population, age-standardised (direct method).

† Ratio of age-standardised rate for Indigenous deaths to the equivalent rate for deaths not recorded as Indigenous.

Shaded areas indicate three highest rates or rate ratios for specified injury (i.e. excludes 'Other unintentional injury').

Intentional self-harm (i.e. Suicide) and Transport accidents (mainly motor vehicle crashes) were the most common types of External cause of fatal injury for Aboriginal and Torres Strait Islander Australians. This was also the case in the Australian population as a whole, though Aboriginal and Torres Strait Islander rates were 1.6 times higher for Self-harm, and 2.3 times higher for Transport than in the remainder of the population.

Injury from Fire (rate ratio 6.2:1) and intentional Fatal assault (rate ratio 4.3:1) were the types of External cause that differed most from the rates for the remainder of the population. The smallest difference was seen for deaths attributed to Poisoning by drugs, where the Aboriginal and Torres Strait Islander rate was about the same as that for the remainder of the population, when Australia is considered as a whole.

3.2.2 Age and sex distribution

The patterns for males and females were generally similar to the overall pattern for persons, though with some noteworthy differences.

The chief difference was that rates for Aboriginal and Torres Strait Islander males were much higher than for Aboriginal and Torres Strait Islander females. Considering all External causes together, the male rate was 2.7 times higher than the female rate (Table 3.1). The ratio of male to female rates was as low as 0.7:1 for 'Fire, burns and scalds' (i.e. more female than male cases were reported, but note that there were not many cases of this type) and was 5.3:1 for 'Intentional self-harm'.

'Fire, burns and scalds' was the External cause for which the difference between Aboriginal and Torres Strait Islander rates and those for the remainder of the Australian population was largest for males (rate ratio 4.3:1) and – to a larger degree – for females (rate ratio 12:1).

3.2.3 Selected External causes

Five types of External cause account for more than three quarters (77%) of all External cause deaths of Aboriginal and Torres Strait Islander persons in this period. The five categories are: Land transport (Transport), Poisoning by drugs, Intentional self-harm (Suicide), Intentional harm by another (Fatal assault), and Falls.

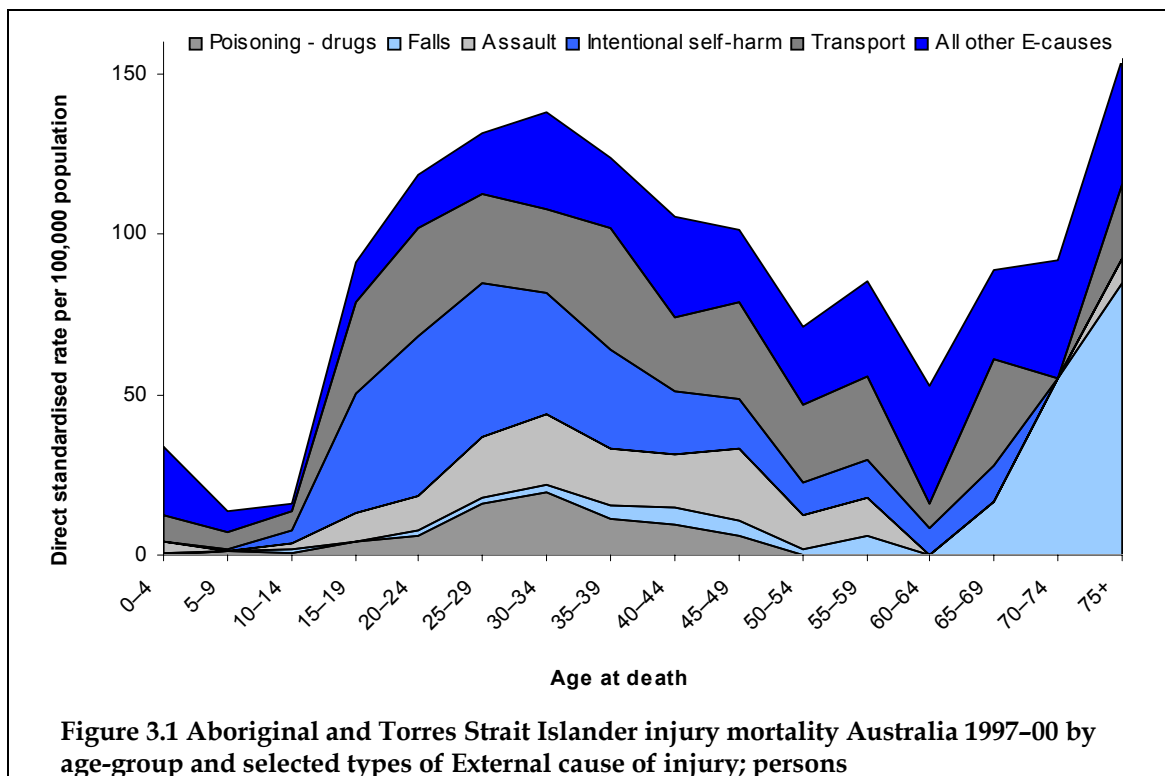


Figure 3.1 Aboriginal and Torres Strait Islander injury mortality Australia 1997-00 by age-group and selected types of External cause of injury; persons

Figure 3.1 shows rates for the selected types of External cause by age group. Overall, rates were highest in the third and fourth decades of age, and in old age. The impact of most External causes of injury on mortality differs with age. For example, Intentional self-harm peaked from late teenage to early middle age. In contrast, Falls were most common as a cause of death in old age. Rates differed between the sexes, with rates for

males usually exceeding those for females. The rates and case numbers underlying this figure, and equivalent data for males and females, are in Tables B2.14–B2.19 in Appendix B. Each of these five External causes of injury death is detailed in Section 3.3.

3.2.4 Reporting Regions

Table 3.3 presents data for reporting Regions A and B, which is similar to the data presented in Table 3.1 for the whole of Australia.

As shown in Section 2.7, reported cases of Aboriginal and Torres Strait Islander injury deaths are probably underestimates in both regions. However, under-enumeration is likely to be substantially more severe for Region B than for Region A. For this reason, differences in rates calculated for the two regions are not a reliable guide to differences in injury risk.

Table: 3.3 Aboriginal and Torres Strait Islander deaths due to total External causes registered 1997–00, selected indicators: Regions A and B

Indicators	Indigenous deaths Region A				Reported Indigenous deaths Region B			
	Males	Females	Persons	Ratios: male to female	Males	Females	Persons	Ratios: male to female
Number of deaths	671	276	947	2.4	210	75	285	2.8
Percentage of all Indigenous injury deaths in region	19.9	10.8	16.0		18.3	9.2	14.5	
Crude rate/100,000 population*	137.0	55.0	95.5	2.5	67.0	23.4	44.9	2.9
Mean years potential life lost (YPLL [†]) per death	45.2	45.7	45.3		44.6	45.9	44.9	

*Rates are annual averages over the four years 1997–2000, case numbers are four-year totals.

Region A aggregates SA, NT, WA, Qld, Region B aggregates NSW, Vic, ACT, Tas.

[†]Calculation of YPLL before age 75 years is described in section 2.4.8

In both regions, the all ages rate for Aboriginal and Torres Strait Islander males was significantly higher than the rate for Aboriginal and Torres Strait Islander females, and higher than the rate for other Australian males and females (Figure 3.2). The rate for Aboriginal and Torres Strait Islander males in Region A was nearly twice the rate for Aboriginal and Torres Strait Islander males in Region B. Rates for Aboriginal and Torres Strait Islander males were higher than rates for other Australian males in both regions, though less so in Region B than in Region A. The rate for Aboriginal and Torres Strait Islander females in Region A was significantly higher than the rate for Aboriginal and Torres Strait Islander females in Region B, and also higher than the rate for other Australian females in both regions, and higher than the rate for other Australian males in Region B.

Injury deaths tend to occur at young ages. If deaths before reaching 75 years are regarded as being premature, then the average number of years of potential life lost (YPLL) per case was about 45 for injury deaths among Aboriginal and Torres Strait Islander persons (Table 3.3). The YPLL value was similar for males and females, and for Region A and Region B. Average YPLL (before 75) per injury death was lower for the remainder of the population: 37 years for persons resident in Region A, and 36 years for Region B. This difference is partly due to the larger proportion of young people in the Aboriginal and Torres Strait Islander population.

For Aboriginal and Torres Strait Islander males in Region A from age 15 upwards, rates were much higher than for any other group (Figure 3.3). The pattern of rates for other Australian males was almost identical in both Region A and Region B. The pattern of rates for Aboriginal and Torres Strait Islander males in Region B was more similar to those of other Australian males than to Aboriginal and Torres Strait Islander males in Region A (note that small case numbers account for fluctuations in rates for older Aboriginal and Torres Strait Islander age groups).

There was little discernible difference between rates for other Australian females in either region (Figure 3.4). The pattern of rates for Aboriginal and Torres Strait Islander females in Region B was similar to that of other Australian females, though somewhat higher during mid-life. Rates for Aboriginal and Torres Strait Islander females in Region A were generally higher than rates for the other groups, but the overall pattern was not dissimilar to the other groups.

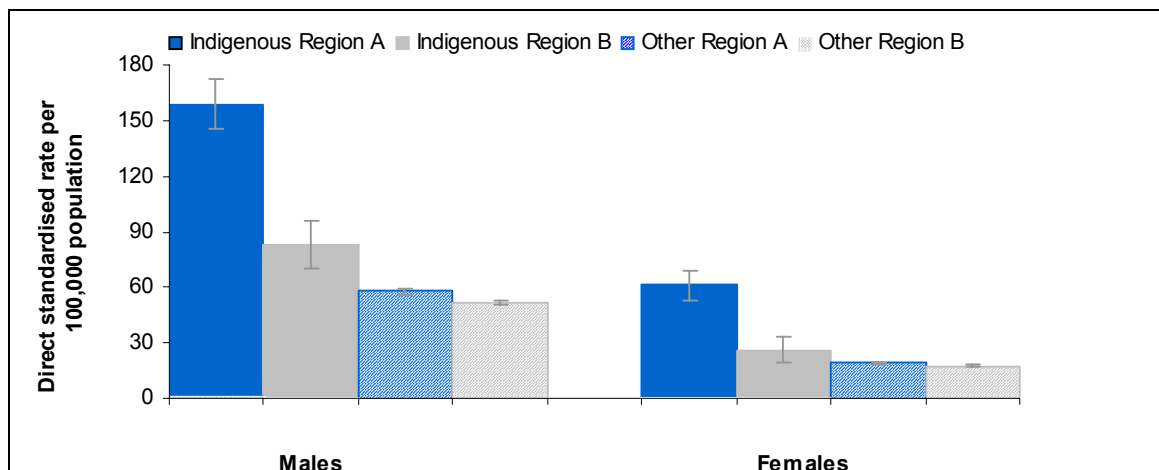


Figure 3.2 Total deaths due to External causes registered 1997-00, Aboriginal and Torres Strait Islander and other Australians by sex, all ages rates; Regions A and B

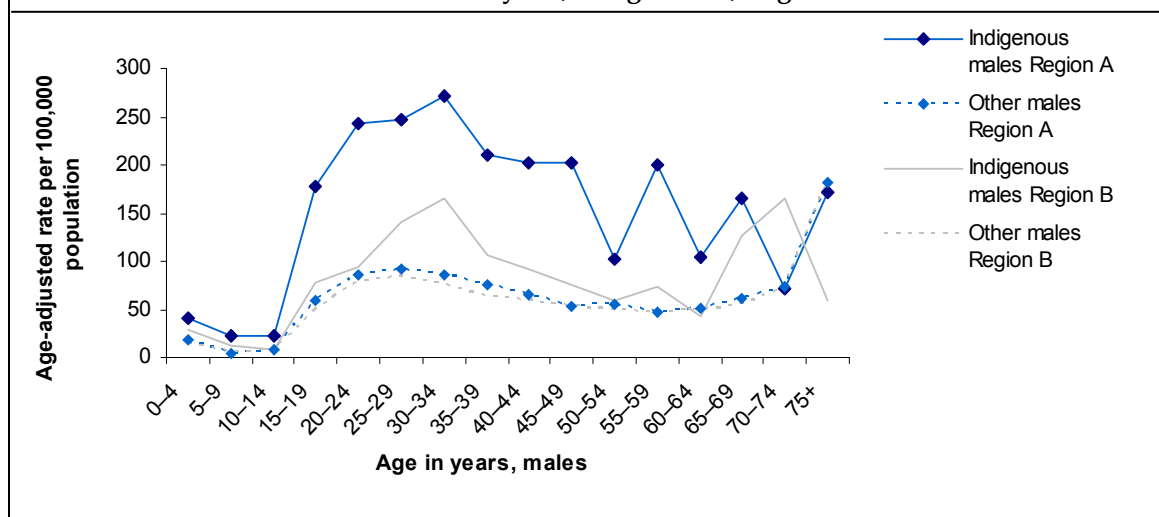


Figure 3.3 Total deaths due to External causes registered 1997-00, Aboriginal and Torres Strait Islander and other Australian males, in five-year age groups; Regions A and B

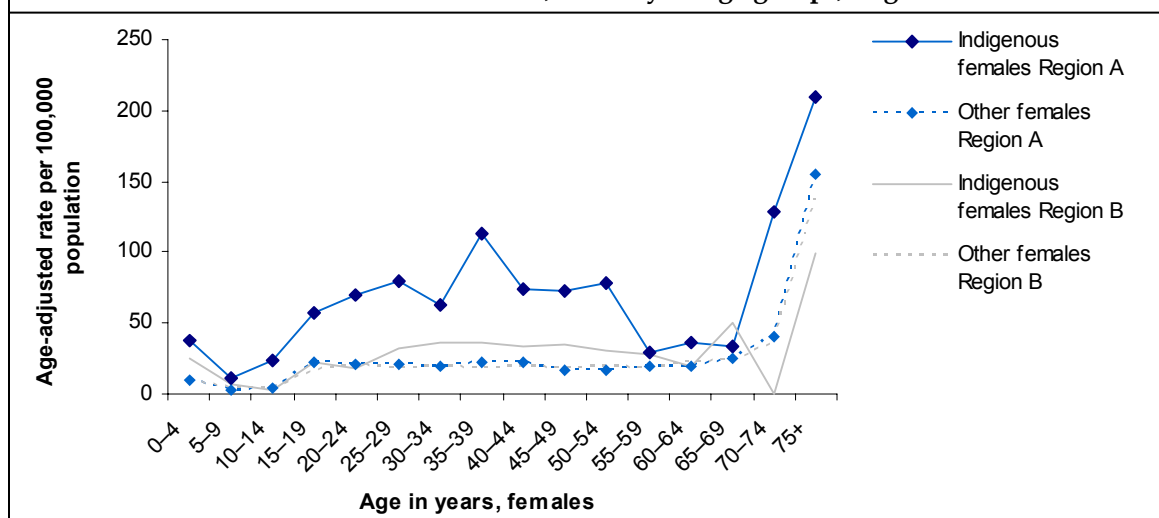


Figure 3.4 Total deaths due to External causes registered 1997-00, Aboriginal and Torres Strait Islander and other Australian females, in five-year age groups; Regions A and B

3.3 Major External causes of mortality

3.3.1 Introduction

In this section, Aboriginal and Torres Strait Islander injury mortality is reported in relation to External causes of injury. The first part of the section provides an overview for reporting Regions A and B. This is followed by separate interpretation of analyses in relation to five major types of External cause: Land transport, Poisoning by drugs, Falls, Intentional self-harm (suicide), and Intentional harm by another person (homicide and fatal assault) for both regions.

As stated in Chapter 2, caution must be exercised when interpreting and comparing mortality rates. This is particularly so for Region B, where ascertainment is probably much worse than in Region A.

The rates and case numbers underlying tables and figures in Section 3.3 are in Appendix B, Tables B2.20-B2.27.

3.3.2 Overview of External causes of mortality

The tables in the previous section show rates of mortality, from all External causes combined, for males and females in Region A and Region B.

The estimate of overall reported Aboriginal and Torres Strait Islander injury mortality in Region A (108.4 deaths per 100,000 population per year) is just over twice as high as the equivalent estimate for reported cases in Region B (53.0 deaths per 100,000 population), and about 25% higher than the equivalent value for Aboriginal and Torres Strait Islander injury mortality in Australia as a whole (Table 3.1).

The pattern of apparently higher Aboriginal and Torres Strait Islander injury mortality rates in Region A than in Region B, occurs both for males (Region A: 159.0 deaths per 100,000 population; Region B: 82.7) and for females (Region A: 61.3, Region B: 26.0).

Table 3.4 presents summary data for eleven types of External cause of injury for Region A. Table 3.5 provides equivalent data reported for Region B.

Table 3.4 Deaths recorded as being of Aboriginal or Torres Strait Islander persons; Region A; 1997-00: case counts, rates and rate ratios by type of External cause and sex

External Cause of Injury	Males			Females			Persons		
	count	rate*	ratio†	count	rate*	ratio†	count	rate*	ratio†
Unintentional injury									
Land transport (Transport)	176	43.2	2.9	77	15.3	2.8	253	28.6	2.8
Drowning	25	5.6	2.8	17	3.4	6.8	42	4.5	3.5
Poisoning - drugs	28	6.1	1.4	14	2.9	1.6	42	4.5	1.5
Poisoning - other substances	7	1.5	3.0	5	1.2	12.0	12	1.3	4.3
Falls	21	7.8	2.9	15	4.3	2.3	36	6.0	2.5
Fire, burns, scalds	9	2.9	4.8	11	4.9	24.5	20	4.1	10.3
Other unintentional injury	104	26.0	4.5	31	6.9	5.8	135	16.0	4.6
Intentional self harm (Suicide)	225	47.3	2.1	44	8.3	1.5	269	27.3	1.9
Intentional injury, inflicted by other person (Fatal assault)	61	15.0	7.5	56	11.7	11.7	117	13.3	8.9
Intentional injury - undetermined intent	13	3.0	2.1	2	0.6	1.0	15	1.7	1.7
Injury related to medical/surgical care	2	0.5	1.0	4	1.8	3.6	6	1.2	2.4
Total External causes	671	159.0	2.8	276	61.3	3.2	947	108.4	2.8

*Annual average rates per 100,000 population, age-standardised (direct method).

†Ratio of age-standardised rate for Indigenous deaths to the equivalent rate for deaths not recorded as Indigenous.

Shaded areas indicate three highest rates for specified injury (i.e. excludes 'Other unintentional injury').

Region A aggregates SA, NT, WA, Qld.

Table 3.5 Deaths recorded as being of Aboriginal or Torres Strait Islander persons; Region B; 1997-00: case counts, rates and rate ratios by type of External cause and sex

External Cause of Injury	Males			Females			Persons		
	count	rate*	ratio†	count	rate*	ratio†	count	rate*	ratio†
Unintentional injury									
Land transport (Transport)	48	17.9	1.4	23	7.3	1.4	71	12.4	1.4
Drowning	19	6.9	4.3	6	1.5	3.0	25	4.0	3.3
Poisoning - drugs	38	13.7	1.2	10	3.6	0.8	48	8.4	1.1
Poisoning - other substances	2	0.6	1.5	0	N/a	N/a	2	0.3	1.0
Falls	6	5.8	1.9	4	2.1	1.2	10	3.8	1.7
Fire, burns, scalds	5	2.3	3.8	4	1.4	4.7	9	1.7	3.4
Other unintentional injury	12	4.7	1.0	6	1.3	1.2	18	2.9	1.0
Intentional self harm (Suicide)	51	20.3	1.0	11	4.8	0.9	62	12.3	1.0
Intentional injury, inflicted by other person (Fatal assault)	28	10.2	2.5	10	3.7	1.9	38	6.8	2.3
Intentional injury - undetermined intent	1	0.4	1.3	0	N/a	N/a	1	0.2	0.7
Injury related to medical/surgical care	0	N/a	N/a	1	0.3	1.0	1	0.2	0.7
Total External causes	210	82.7	1.6	75	26.0	1.5	285	53.0	1.5

*Annual average rates per 100,000 population, age-standardised (direct method).

†Ratio of age-standardised rate for Indigenous deaths to the equivalent rate for deaths not recorded as Indigenous.

Shaded areas indicate three highest rates for specified injury (i.e. excludes 'Other unintentional injury').

Region B aggregates NSW, Vic, ACT, Tas.

The pattern seen for mortality from all External causes combined was broadly repeated for some of the types of External cause shown in Tables 3.4 and 3.5 (e.g. Transport, Suicide), but not for all types. A notable exception is deaths recorded to be due to Poisoning by drugs, for which reported rates were higher in Region B than Region A, especially for males. Conversely, the ratio between rates in Region A and Region B for female deaths due to Fatal assault was larger than the overall difference in rates between the two regions.

As noted above, mortality rates for all External causes combined were higher for Aboriginal and Torres Strait Islander Australians than for other Australians. This was so for males and females, and was more marked for rates recorded for Region A (rate ratio for males: 2.8:1, and for females 3.2:1) than rates recorded for Region B (rate ratio for males: 1.6:1, and for females 1.5:1).

This pattern was generally repeated for the types of External causes shown in Tables 3.4 and 3.5, though with variations.

For none of these External causes was the rate for Aboriginal and Torres Strait Islander males lower than that for other males in the same region, though for several categories the rates were about the same (i.e. Other unintentional injury and Suicide in Region B and Injury related to medical/surgical care in Region A – but note that case numbers for the last of these were very low). At the other extreme, the rate of deaths due to Fatal assault for Aboriginal and Torres Strait Islander males in Region A was over seven times higher than the equivalent rate for other males in this region.

In Region A, rates were more than ten times higher for Aboriginal and Torres Strait Islander females than for other females for three types of External cause: Fatal assault; Fire, burns, scalds, and Poisoning – other substances (but note that case numbers are low for the second and third of these types). The largest recorded rate ratio for females in Region B was 4.7:1, for Fire, burns, scalds. Rates were a little lower for Aboriginal and Torres Strait Islander females than for other females for two types of External cause in Region B: Poisoning by drugs, and Suicide.

Despite these apparent differences between values for Region A and Region B, some similarities are present. Suicide was the most common External cause of death for Aboriginal and Torres Strait Islander males in both regions, followed by Transport. However, the third-ranked External cause was Fatal assault for Aboriginal and Torres Strait Islander males in Region A, and Poisoning by drugs for Aboriginal and Torres Strait Islander males in Region B.

Transport was the most common External cause of death for Aboriginal and Torres Strait Islander females in both regions. Fatal assault and Suicide were the second and third most common External causes of death for Aboriginal and Torres Strait Islander females in Region A. It appeared that Suicide ranked second, and Fatal assault ranked third in Region B.

The complex differences between patterns of rates and proportions suggest that something more than a simple difference in the proportion of cases ascertained distinguishes Aboriginal and Torres Strait Islander injury mortality in Region A and in Region B.

Five types of External cause accounted for 76% of Aboriginal and Torres Strait Islander deaths from external cases in Region A and 80% in Region B. These are considered in turn below.

3.3.3 Land transport (Transport)

Land transport deaths are classified in ICD-10 as the range V01–V89. This includes:

- accidents involving devices conveying persons or goods;
- traffic accidents occurring on public highways, and non-traffic accidents occurring in any place other than a public highway;
- pedestrians (including persons changing wheels and making adjustments to motor of vehicle);
- user of a pedestrian conveyance (e.g. baby carriage, powered wheelchair, skateboard);
- passenger or driver occupants of vehicles;
- persons travelling on outside of vehicle;
- pedal and motor cyclists/vehiclists; and
- cars, pickup trucks or vans, heavy transports, buses, trains, streetcars, special purpose vehicles (including self-propelling farm vehicles and industrial vehicles), special all-terrain vehicles.

Several exclusions from this category should be noted:

- assault by crashing of motor vehicle (Y03.-);
- event of undetermined intent (Y32–Y33);
- intentional self-harm (X82–X83); and
- transport accidents due to cataclysm (X34–X38).

(WHO 1992)

For Aboriginal and Torres Strait Islander persons in Australia as a whole, Transport was the second most common injury mortality category in the period 1997–00, after Intentional self-harm. A total of 324 Aboriginal and Torres Strait Islander persons (male n=224, female n=100) were recorded as dying due to this cause, 78.1% of these deaths being in Region A (Table 3.5). Recorded rates for Aboriginal and Torres Strait Islander persons were 2.3 times higher in Region A than in Region B.

In both regions, Aboriginal and Torres Strait Islander rates for Transport mortality exceeded rates for other Australians (Table 3.6 and Figure 3.5). Aboriginal and Torres Strait Islander rates in Region A were around 3 times higher than rates for other Australians, and were around 1.5 times higher than for Aboriginal and Torres Strait Islander people in Region B. Rates for Aboriginal and Torres Strait Islander males in Region A were 2.4 times higher than in Region B, and rates for Aboriginal and Torres Strait Islander females were 2.1 times higher in Region A than in Region B. While rates for Aboriginal and Torres Strait Islander people were higher overall in Region A, the percentage of injury deaths attributed to Transport was similar for Aboriginal and Torres Strait Islander people in both regions.

In both regions, Aboriginal and Torres Strait Islander male rates were 2.5 times or more higher than rates for females. Males accounted for 69.6% of Transport fatalities recorded in Region A, and for 67.6% in Region B.

The rate for Aboriginal and Torres Strait Islander males in Region A was 2.4 times higher than that for Aboriginal and Torres Strait Islander males in Region B. Rates for

Aboriginal and Torres Strait Islander females (15.3), and persons (28.6) were 2.1 and 2.3 times higher, respectively, in Region A than in Region B. This may partially reflect ascertainment differences between the regions, but may also relate to geographical setting and remoteness (discussed in Section 3.5).

Table: 3.6 Aboriginal and Torres Strait Islander deaths due to Transport accidents registered 1997–00, selected indicators: Regions A and B

Indicators	Indigenous deaths Region A				Reported Indigenous deaths Region B			
	Males	Females	Persons	Ratios: male to female	Males	Females	Persons	Ratios: male to female
Number of deaths	176	77	253	2.3	48	23	71	2.1
Percentage of all Indigenous injury deaths in region	18.6	8.1	26.7	2.3	16.8	8.1	24.9	2.1
Crude rate/100,000 population*	35.9	15.3	24.7		15.3	7.2	9.2	
Age standardised (direct) rate/100,000 population*	43.2	15.3	28.6	2.8	17.9	7.3	12.4	2.5
Ratio of age standardised (dir) rates: Indigenous:other	2.9	2.8	2.8		1.4	1.4	1.4	

*Rates are annual averages over the four years 1997–2000, case numbers are four-year totals. Region A aggregates SA, NT, WA, Qld, Region B aggregates NSW, Vic, ACT, Tas.

As indicated by the 95% Confidence Intervals (CIs) in Figure 3.5, Aboriginal and Torres Strait Islander males and Aboriginal and Torres Strait Islander females had significantly higher rates in Region A than other Australian males and other Australian females.

Transport mortality rates vary by age-group. Case numbers for Aboriginal and Torres Strait Islander persons at specific age-groups are quite small, but some patterns can be seen, especially for males (Figure 3.9). Rates for Aboriginal and Torres Strait Islander males in Region A were higher than rates for other Australians. Differences were greatest, and Aboriginal and Torres Strait Islander rates were highest, for men in middle and older age.

For Aboriginal and Torres Strait Islander males in Region B, the patterns of age-specific rates were more similar to those of other Australian males and females than to Aboriginal and Torres Strait Islander rates in Region A.

Case numbers for Aboriginal and Torres Strait Islander females were too low to produce stable age-specific rates (Figure 3.10).

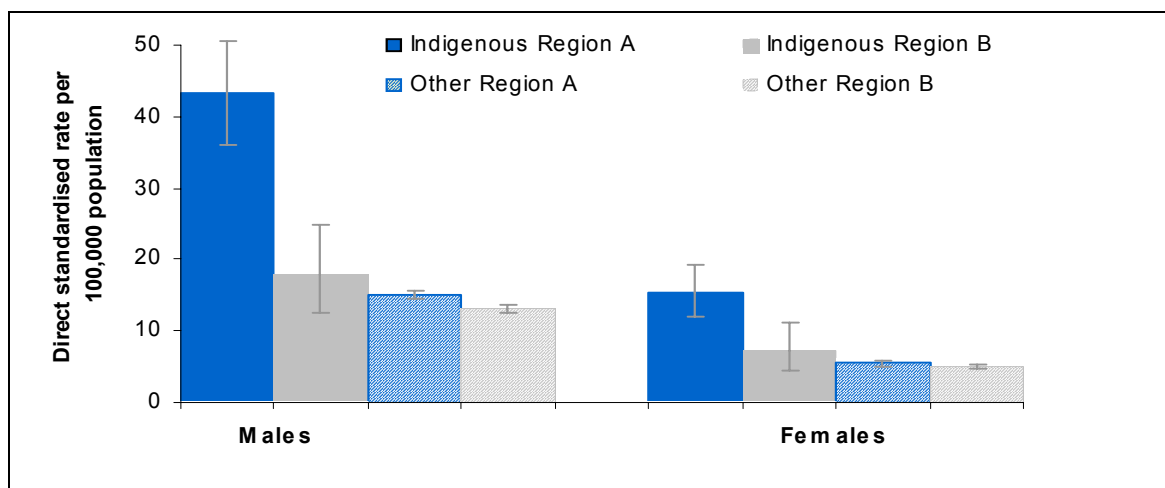


Figure 3.5 Total deaths due to Transport registered 1997-00 Aboriginal and Torres Strait Islander and other Australians by sex, all ages rates; Regions A and B

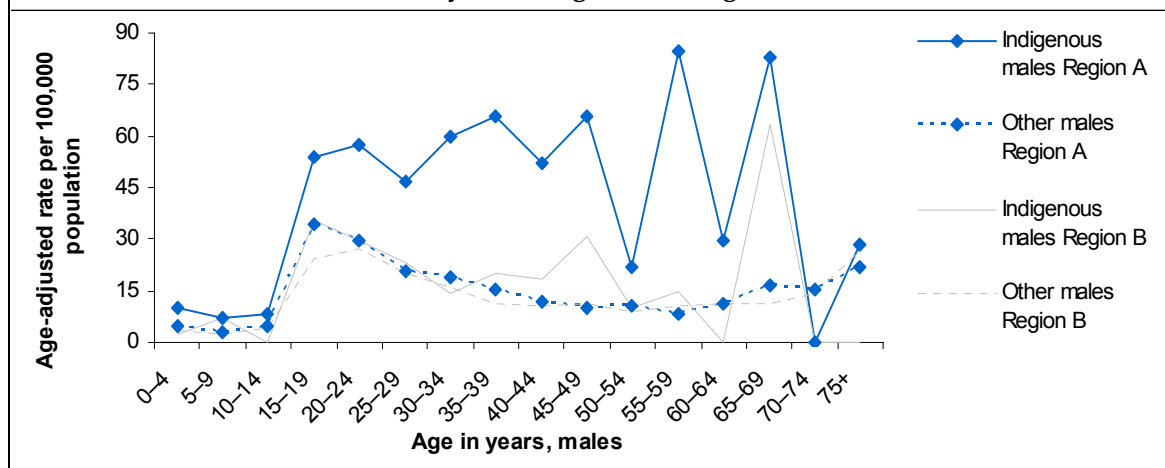


Figure 3.6 Total deaths due to Transport accidents registered 1997-00, Aboriginal and Torres Strait Islander and other Australian males, in five-year age groups; Regions A and B

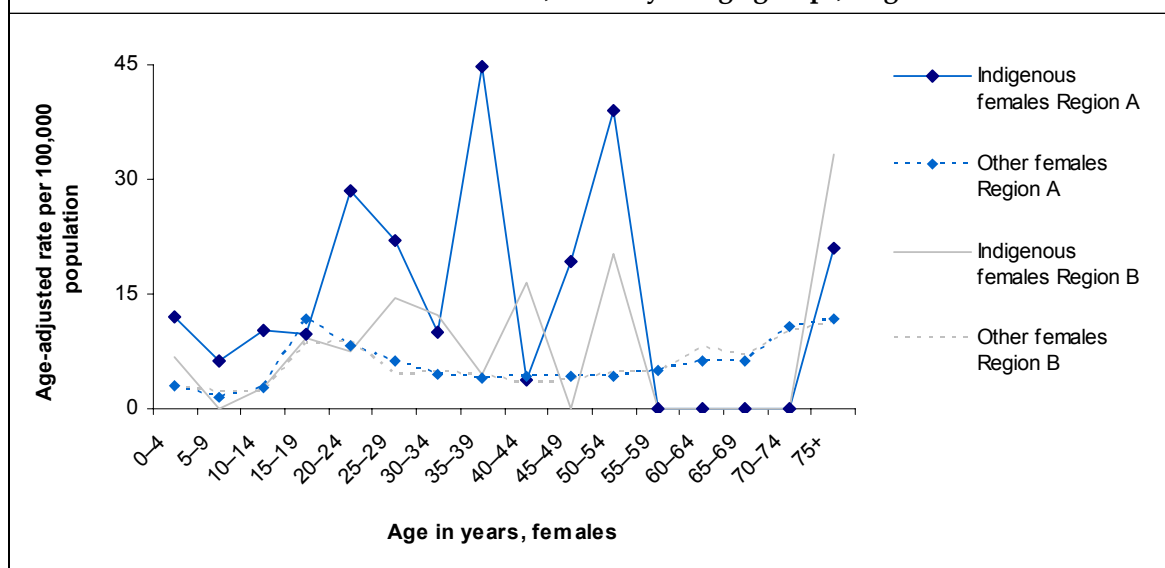


Figure 3.7 Total deaths due to Transport accidents registered 1997-00, Aboriginal and Torres Strait Islander and other Australian females, in five-year age groups; Regions A and B

3.3.4 Poisoning—Drugs

For this report, Poisoning by Drugs is defined by the ICD-10 classification range X40–X44. This includes:

- accidental overdose, wrong drug given, taken in error or inadvertently
- accidents in the use of drugs, medicaments and biological substances in medical and surgical procedures; and
- poisoning where intent is unknown.

This does not include:

- intentional self-poisoning (classifiable to X60–X69) or intentional administration by another person to cause death or other harm (X85–X90, Y10–Y19); or
- adverse effects of properly administered drugs, medicaments or biological substances (Y40–Y59).

The grouping includes a variety of illicit, as well as pharmaceutical drugs. A full list of drugs in this range is available in Volume 3 of the ICD-10 (WHO 1992).

A total of 90 Aboriginal and Torres Strait Islander persons (male n=66, females n=24) died of Drug-related causes in both regions, 53.3% occurring in Region A.

Drugs accounted for 4.4% of all External cause deaths for Aboriginal and Torres Strait Islander persons in Region A, and for 16.8% of all External cause deaths for Aboriginal and Torres Strait Islander persons in Region B (Table 3.7).

In Region A, 5.1% (n=42) of Drug-related deaths were reported as being Aboriginal and Torres Strait Islander persons. The male Aboriginal and Torres Strait Islander rate (6.1) was 1.4 times that of the rate for other Australian males in that region (4.5). The female Aboriginal and Torres Strait Islander rate (2.9) was 1.6 times that of other Australian females (1.8).

In Region B, persons identified as Aboriginal and Torres Strait Islander accounted for 2.7% (n=48) of total recorded Drug-related deaths. The rate for Aboriginal and Torres Strait Islander males (13.7) was 1.2 times higher than that for other Australian males (11.2) in that region. The rate for other Australian females (4.5) were 1.3 times higher than that for Aboriginal and Torres Strait Islander females (3.6).

Table: 3.7 Aboriginal and Torres Strait Islander deaths due to Drugs registered 1997–00, selected indicators: Regions A and B

Indicators	Indigenous deaths Region A				Reported Indigenous deaths Region B			
	Males	Females	Persons	Ratios: male to female	Males	Females	Persons	Ratios: male to female
Number of deaths	28	14	42	2.0	38	10	48	3.8
Percentage of all Indigenous injury deaths in region	3.0	1.5	4.4	2.0	13.3	3.5	16.8	3.8
Crude rate/100,000 population*	5.7	2.8	4.2		12.1	3.1	7.6	
Age standardised (direct) rate/100,000 population*	6.1	2.9	4.5	2.1	13.7	3.6	8.4	3.8
Ratio of age standardised (dir) rates: Indigenous:other	1.4	1.6	1.5		1.2	0.8	1.1	

*Rates are annual averages over the four years 1997–2000, case numbers are four-year totals. Region A aggregates SA, NT, WA, Qld, Region B aggregates NSW, Vic, ACT, Tas.

For this cause of death, recorded rates for Aboriginal and Torres Strait Islander males, and for other males, were high in Region B. Rates for both of these groups were significantly lower in Region A than in Region B (Figure 3.8).

For females, point estimates suggest a similar pattern at a lower level, though without the high Aboriginal and Torres Strait Islander rates in Region B, which were seen for males.

For males, age-specific rates were highest at early adult ages and were lower at younger and older ages (Figure 3.9). The pattern was similar for Aboriginal and Torres Strait Islander and other men, though the peak was at a slightly older age for Aboriginal and Torres Strait Islander men (30–34 years) than for other men (25–29 years). Rates were generally higher in Region B than Region A, but the pattern of age-specific rates was otherwise similar.

Relatively small case numbers complicate interpretation of age-specific rates for females (Figure 3.10). As for males, mortality from this cause was greatest at early and middle adult ages. Concentration of poisoning mortality at these ages was more marked for Aboriginal and Torres Strait Islander females than for other females.

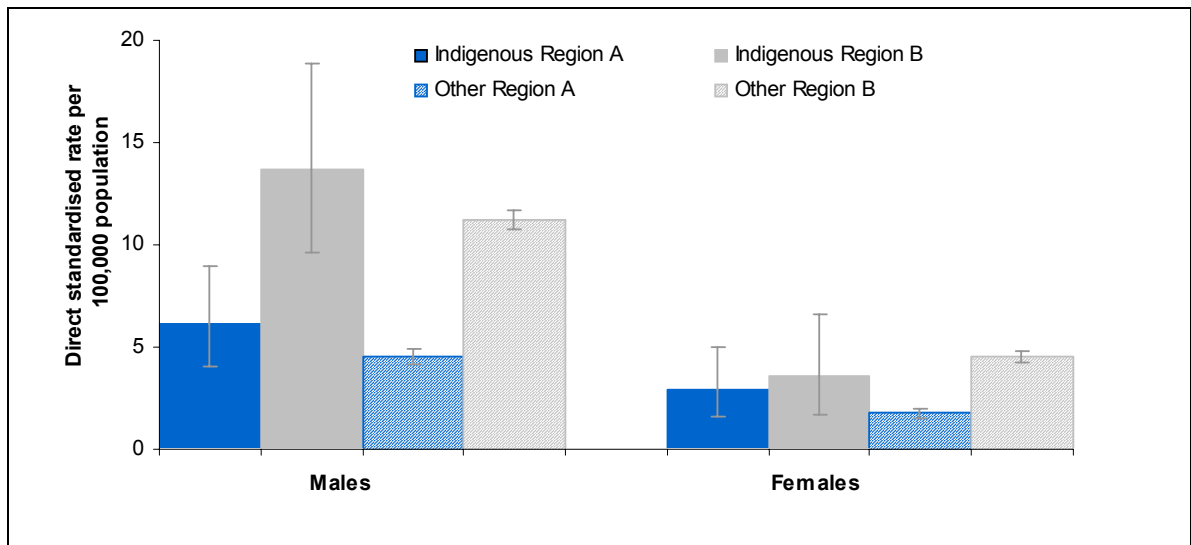


Figure 3.8 Total deaths due to Poisoning by drugs registered 1997-00, Aboriginal and Torres Strait Islander and other Australians by sex, all ages rates; Regions A and B

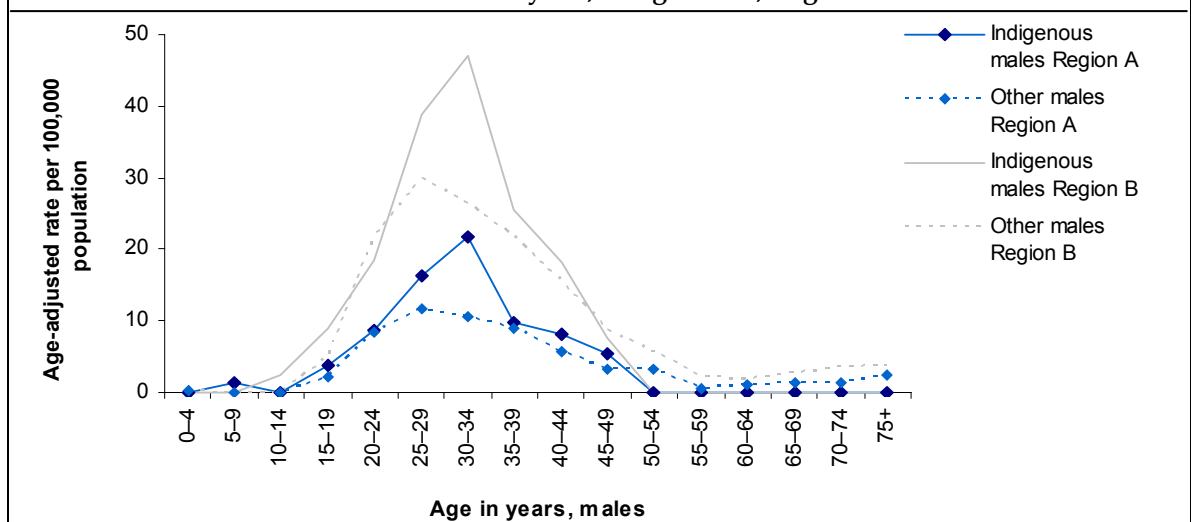


Figure 3.9 Total deaths due to Poisoning by drugs registered 1997-00, Aboriginal and Torres Strait Islander and other Australian males, in five-year age groups; Regions A and B

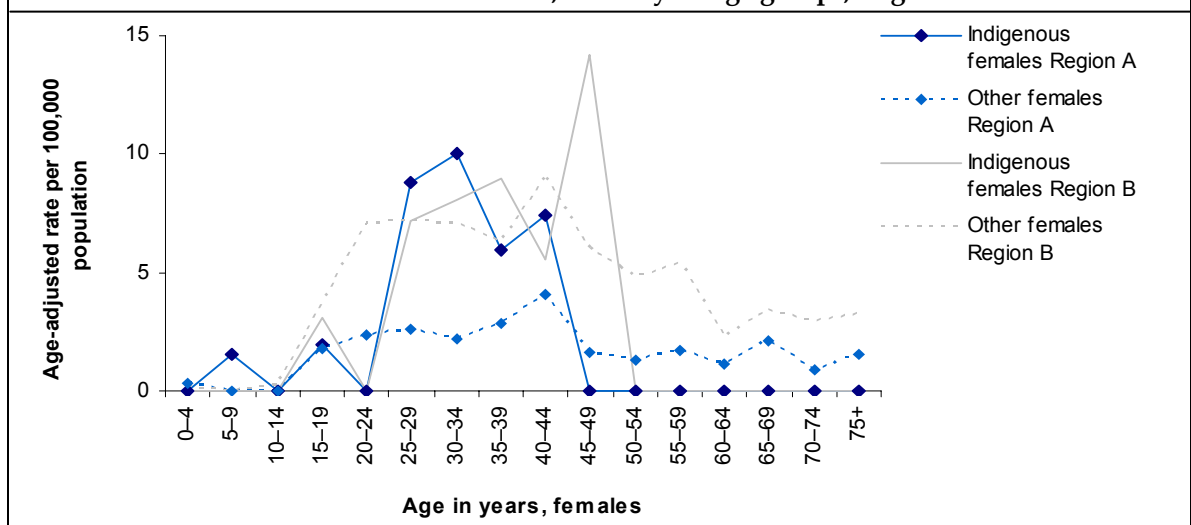


Figure 3.10 Total deaths due to Poisoning by drugs registered 1997-00, Aboriginal and Torres Strait Islander and other Australian females, in five-year age groups; Regions A and B

3.3.5 Intentional self-harm (Suicide)

Intentional self-harm is covered by the ICD-10 range X60–X84. The following forms of Suicide are described by this range:

- deliberate exposure to, or self-poisoning by a large range of drugs, medicaments, biological substances, alcohol;
- gases and vapours (including carbon monoxide poisoning);
- pesticides, chemicals and noxious substances (including petrol and glue sniffing);
- hanging, strangulation and suffocation;
- drowning and submersion;
- firearms discharge, explosives;
- harm originating from a heat source;
- sharp or blunt objects;
- deliberate falls;
- motor vehicles; and
- other specified and unspecified means.

Sequelae of intentional self-harm, assault and events of undetermined intent (Y87.0) is included in the definition used in this report (WHO 1992).

Suicide is the most common External cause of death in Australia, overall and for Aboriginal and Torres Strait Islander people. Suicide was recorded as the cause of death of 331 Aboriginal and Torres Strait Islander persons (m=276, f=55) in the period 1997–00, 81.3% of whom were residents of Region A (Table 3.8).

Suicide rates for Aboriginal and Torres Strait Islander persons were 2.2 times higher in Region A than those recorded in Region B.

The Suicide rate for Aboriginal and Torres Strait Islander residents of Region A was nearly twice as high as the rate for other residents. In contrast, the rate of recognised suicides for Aboriginal and Torres Strait Islander residents of Region B was similar to the rate for other residents of the region.

Table: 3.8 Aboriginal and Torres Strait Islander deaths due to Suicide registered 1997–00, selected indicators: Regions A and B

Indicators	Indigenous deaths Region A				Reported Indigenous deaths Region B			
	Males	Females	Persons	Ratios: male to female	Males	Females	Persons	Ratios: male to female
Number of deaths	225	44	269	5.1	51	11	62	4.6
Percentage of all Indigenous injury deaths in region	23.8	4.6	28.4	5.2	17.9	3.6	21.8	5.0
Crude rate/100,000 population*	46.0	8.8	27.1		16.3	3.4	9.8	
Age standardised (direct) rate/100,000 population*	47.3	8.3	27.3	5.7	20.3	4.8	12.3	4.2
Ratio of age standardised (dir) rates: Indigenous:other	2.1	1.5	1.9		1.0	0.9	1.0	

Rates are annual averages over the four years 1997–2000, case numbers are four-year totals. Region A aggregates SA, NT, WA, Qld, Region B aggregates NSW, Vic, ACT, Tas.

Rates for Aboriginal and Torres Strait Islander males in Region A were higher than any other male rates, and higher than female rates in either region (Figure 3.11). Rates for Aboriginal and Torres Strait Islander and other Australian males were significantly higher than rates for females in both regions.

Rates for Aboriginal and Torres Strait Islander females in Region A were higher than rates for Aboriginal and Torres Strait Islander females in Region B, and higher than rates for other Australian females in both regions.

For residents of Region A, rates of suicide by Aboriginal and Torres Strait Islander males were substantially higher than for other males for age groups from teens to about 50 years of age (Figure 3.12). The difference was particularly large for age groups 15-19 to 30-34 years.

The pattern of Aboriginal and Torres Strait Islander male rates apparent in Region B was more similar to that of other Australian males in both regions, than to male Aboriginal and Torres Strait Islander rates in Region A.

Rates for Aboriginal and Torres Strait Islander females in Region A were high in comparison with rates for other Australian females in several age-groups, particularly in late teen years and early adult years (Figure 3.13). In both regions, rates for other Australian females increased from youth to the middle years and decreased slightly in older age.

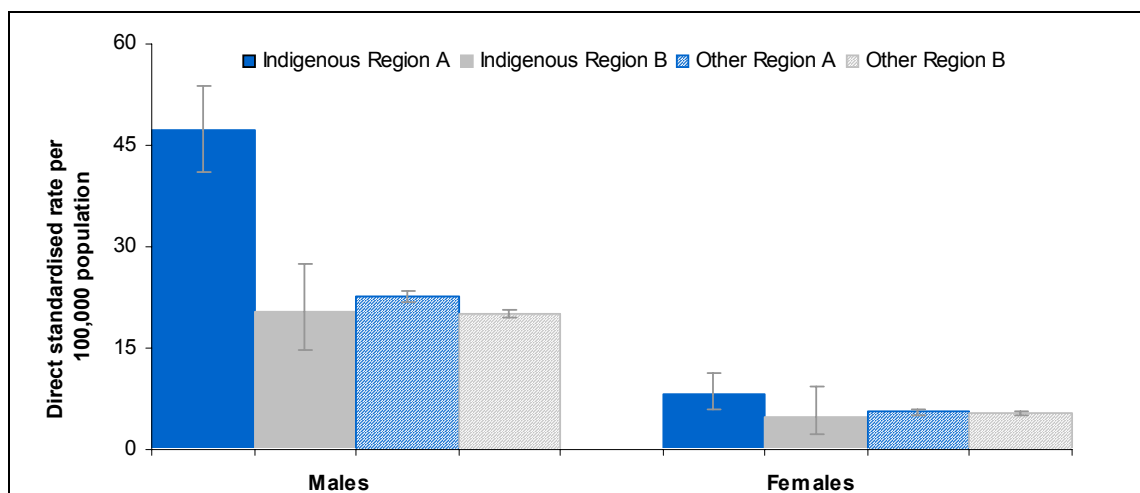


Figure 3.11 Total deaths due to Suicide registered 1997-00, Aboriginal and Torres Strait Islander and other Australians by sex, all ages rates; Regions A and B

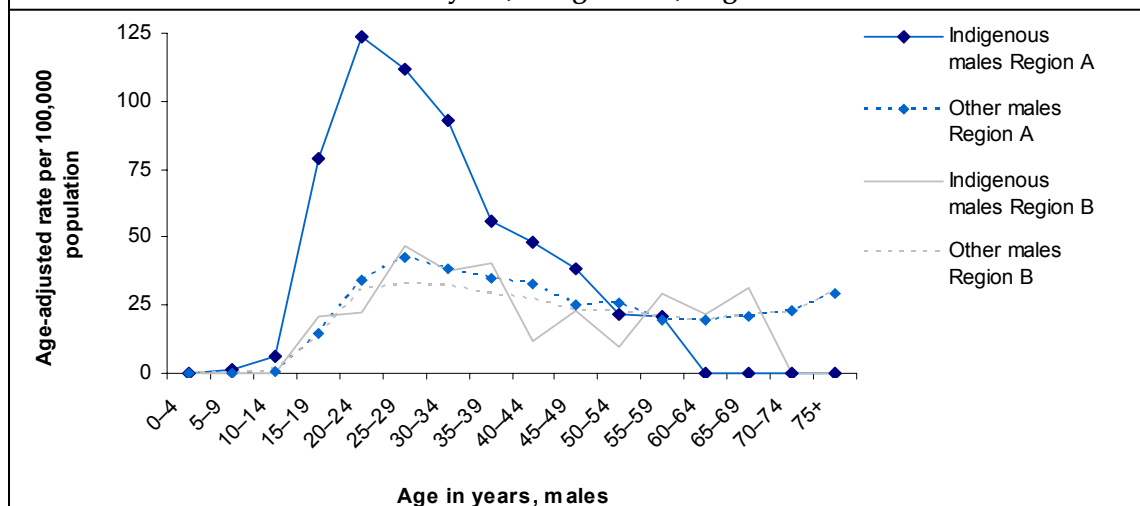


Figure 3.12 Total deaths due to Suicide registered 1997-00, Aboriginal and Torres Strait Islander and other Australian males, in five-year age groups; Regions A and B

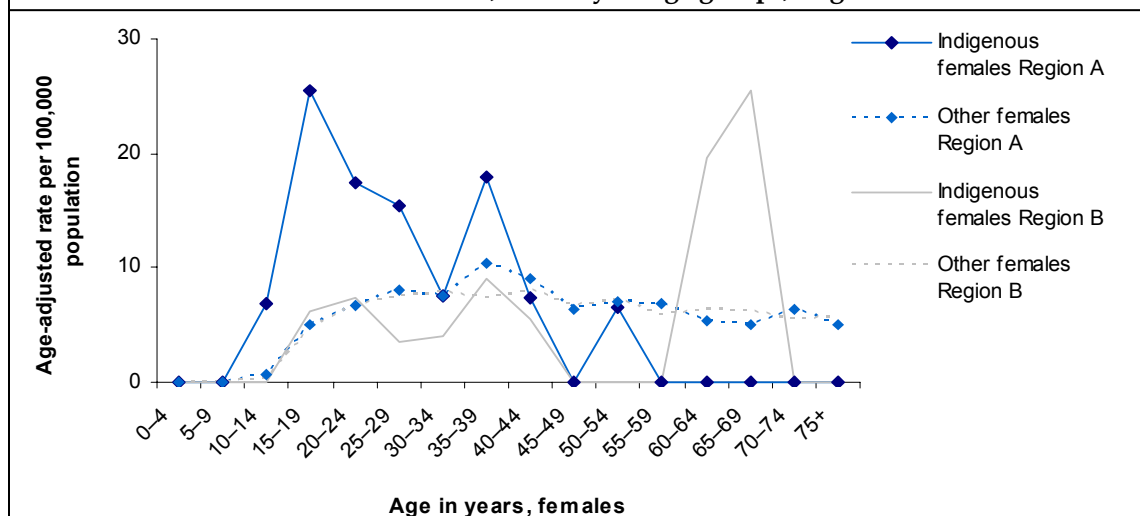


Figure 3.13 Total deaths due to Suicide registered 1997-00, Aboriginal and Torres Strait Islander and other Australian females, in five-year age groups; Regions A and B

3.3.6 Intentional harm by another (Fatal assault)

The category *Intentional harm by another person* includes ICD-10 codes X85–Y09. This range includes ‘homicide and injuries inflicted by another person with intent to injure or kill, by any means’ (WHO 1992). The following forms of assault are included by these codes:

- Assault by drugs, medicaments and biological substances, corrosive substances, pesticides, gases and vapours, specified and unspecified chemicals and noxious substances.
- Assault by hanging, strangulation and suffocation, drowning and submersion, specified and unspecified firearms discharge, explosive materials, smoke, fire and flames, steam, hot vapours and hot objects.
- Assault by sharp and blunt objects, by pushing from a high place, by pushing or placing victim before a moving object, by crashing of a motor vehicle.
- Assault by bodily force, sexual assault, neglect and abandonment, other maltreatment syndromes, assault by other specified and unspecified means.

Injuries excluded from this category are those due to:

- Injury caused by a range of legal interventions, legal execution, legal intervention involving specified and unspecified means (Y35); and
- A range of operations of war (Y36).

(WHO 1992)

In Australia, 155 Aboriginal and Torres Strait Islander deaths (m=89, f=66) were recorded for this category, with 75.5% of cases being recorded in Region A (Table 3.9). Fatal assault accounted for 12.4% of total External cause deaths for Aboriginal and Torres Strait Islander persons in Region A, and for an estimated 13.3% in Region B.

Rates of deaths due to this External cause were considerably higher for persons recorded as being Aboriginal and Torres Strait Islander than for other persons. Ratios of rates (Indigenous:other) were much larger for Region A than for Region B, and were largest for females living in Region A (11.7:1). The rate for Aboriginal and Torres Strait Islander females in Region A (11.7) was more than three times higher than the rate for Aboriginal and Torres Strait Islander females in Region B.

Table: 3.9 Aboriginal and Torres Strait Islander deaths due to Fatal assault registered 1997–00, selected indicators: Regions A and B

Indicators	Indigenous deaths Region A				Reported Indigenous deaths Region B			
	Males	Females	Persons	Ratios: male to female	Males	Females	Persons	Ratios: male to female
Number of deaths	61	56	117	1.1	28	10	38	2.8
Percentage of all Indigenous injury deaths in region	6.4	5.9	12.4	1.1	9.8	3.5	13.3	2.8
Crude rate/100,000 population*	12.5	11.2	11.8		8.9	3.1	6.0	
Age standardised (direct) rate/100,000 population*	15.0	11.7	13.3	1.3	10.2	3.7	6.8	2.8
Ratio of age standardised (dir) rates: Indigenous: other	7.5	11.7	8.9		2.5	1.9	2.3	

Rates are annual averages over the four years 1997–2000, case numbers are four-year totals. Region A aggregates SA, NT, WA, Qld, Region B aggregates NSW, Vic, ACT, Tas.

Rates for Aboriginal and Torres Strait Islander males were generally much higher in both regions than rates for other Australian males, and were highest from early adulthood to late middle age (Figure 3.15).

Rates were similar for young Aboriginal and Torres Strait Islander men in both regions, but were higher in Region A for middle-aged men.

From childhood through to late middle age, recorded rates for Aboriginal and Torres Strait Islander females in Region A were much higher than rates for Aboriginal and Torres Strait Islander females in Region B, and for other Australian females in both regions (Figure 3.16).

Rates for Aboriginal and Torres Strait Islander females in Region B were similar to those of other Australian females in both regions up to about 30 years, and fluctuated at older ages. A peak at age 30–39 years coincides with the much larger peak for Aboriginal and Torres Strait Islander females in Region A, but this is based on few cases.

For other males and females, age-specific mortality rates from this cause were generally higher for residents of Region B than Region A. Rates were higher for young adults than for people at other ages, but rates differed less with age than for Aboriginal and Torres Strait Islander Australians.

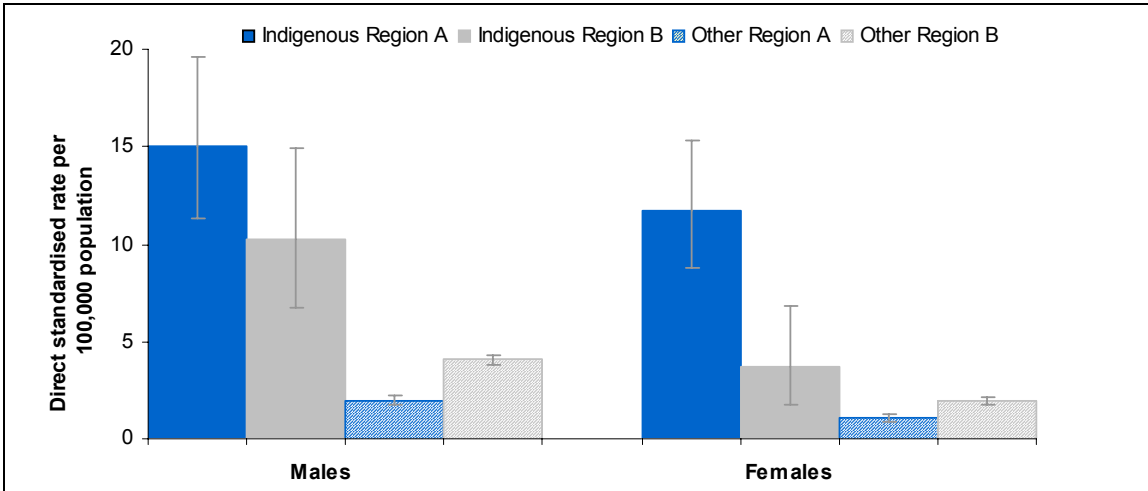


Figure 3.14 Total deaths due to Fatal assault registered 1997-00, Aboriginal and Torres Strait Islander and other Australians by sex, all ages rates; Regions A and B

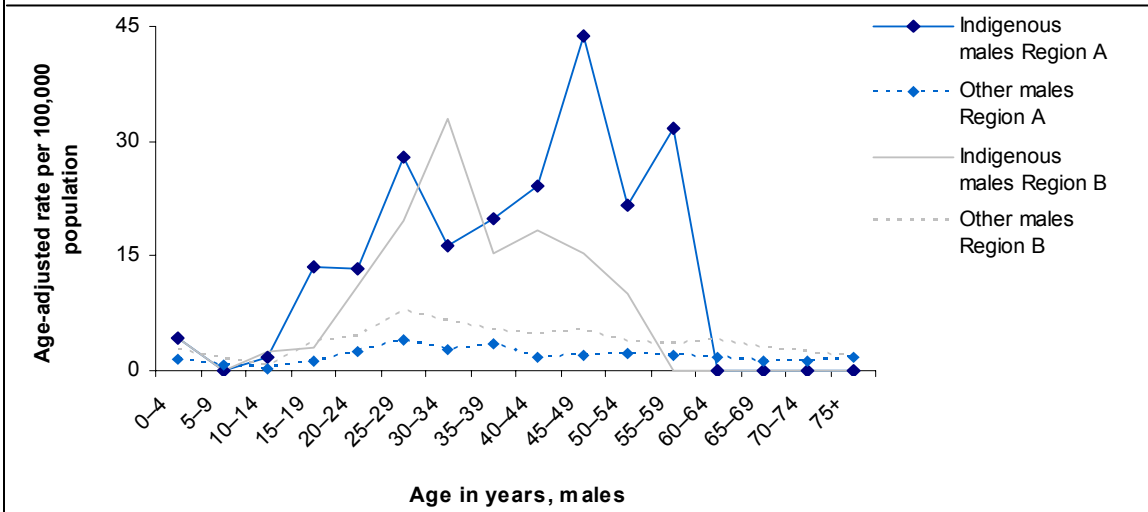


Figure 3.15 Total deaths due to Fatal assault registered 1997-00, Aboriginal and Torres Strait Islander and other Australian males, in five-year age groups; Regions A and B

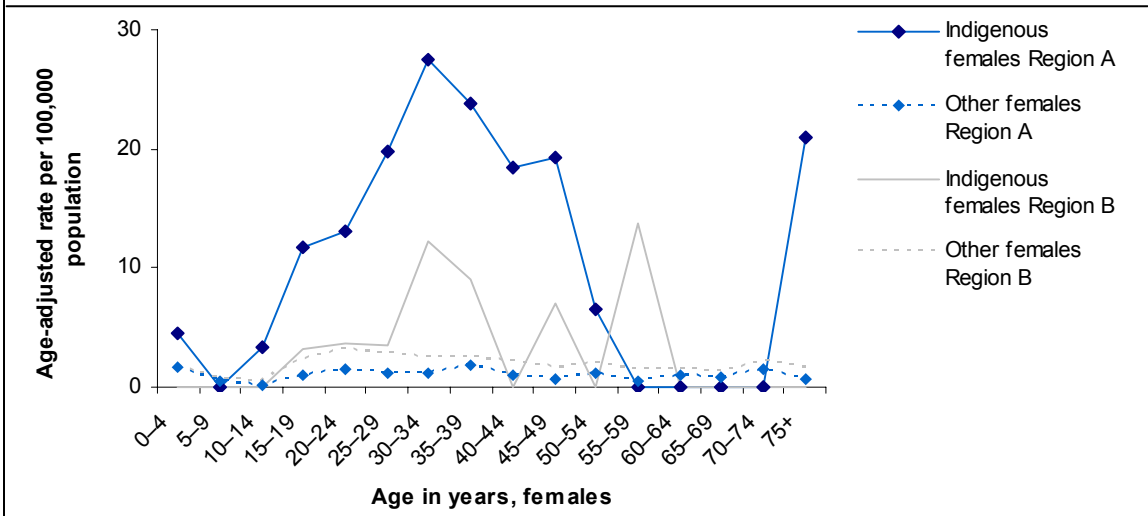


Figure 3.16 Total deaths due to Fatal assault registered 1997-00, Aboriginal and Torres Strait Islander and other Australian females, in five-year age groups; Regions A and B

3.3.7 Falls

The ICD-10 range for Falls (accidental) is W00-W19. This range includes: falls from same level, different levels, ice and snow accidents, skate, ski and skateboard events, accidents involving other persons, furniture, playground equipment, water and natural objects. In addition, the code X59 (Exposure to unspecified factor) is included when accompanied by a code for a fracture, which most likely resulted from a Fall (approximating the ICD-9 code E887, which does not have an equivalent inclusion in the W00-W19 range).

External causes which sometimes involve a Fall, but which are not included in this ICD-10 range are:

- acts of assault (Y01–Y02);
- incidents involving animals (V80.–);
- burning building (X00.–) and fire (X00–X04, X08–X09);
- water (where drowning occurs W65–W74);
- whilst operating machinery (W28–W31);
- where transport vehicles are involved (V01–V99); and
- cases of intentional self-harm (X80–X81).

(WHO 1992)

Throughout Australia, 46 Aboriginal and Torres Strait Islander persons (m=27, f=19) were registered as having died as a result of Falls in the 1997-00 period, representing 3.7% of total Aboriginal and Torres Strait Islander injury deaths. About 80% of these deaths occurred in Region A.

Aboriginal and Torres Strait Islander rates for Falls were about 1.6 times higher in Region A than in Region B.

Rates for Aboriginal and Torres Strait Islander persons in Region A were two and a half times higher than rates for other Australians in that region.

Table: 3.10 Aboriginal and Torres Strait Islander deaths due to Falls registered 1997-00, selected indicators: Regions A and B

Indicators	Indigenous deaths Region A				Reported Indigenous deaths Region B			
	Males	Females	Persons	Ratios: male to female	Males	Females	Persons	Ratios: male to female
Number of deaths	21	15	36	1.4	6	4	10	1.5
Percentage of all Indigenous injury deaths in region	2.2	1.6	3.8	1.4	2.1	1.4	3.5	1.5
Crude rate/100,000 population*	4.3	3.0	3.6		1.9	1.2	1.6	
Age standardised (direct) rate/100,000 population*	7.8	4.3	6.0	1.8	5.8	2.1	3.8	2.8
Ratio of age standardised (dir) rates: Indigenous: Other	2.9	2.3	2.5		1.9	1.2	1.7	

Rates are annual averages over the four years 1997–2000, case numbers are four-year totals. Region A aggregates SA, NT, WA, Qld, Region B aggregates NSW, Vic, ACT, Tas.

The all-ages rate for Aboriginal and Torres Strait Islander males in Region A was higher than the rate for other Australian males and females in both regions, and higher than the rate for Aboriginal and Torres Strait Islander females in Region B.

For residents of Region B, only non-significant differences were seen between the rates for Aboriginal and Torres Strait Islander males and Aboriginal and Torres Strait Islander females, and between the rates for Aboriginal and Torres Strait Islander males and other males (Figure 3.17). Point estimates were higher for Aboriginal and Torres Strait Islander males and females than for other Australians, but case numbers were small (Table 3.10) and the differences could have occurred by chance.

Rates for other Australian males were significantly higher than rates for other Australian females in both regions.

Aboriginal and Torres Strait Islander case numbers in both regions were very small, and are difficult to interpret on their own. However, when compared to the pattern of the larger case numbers of other Australian Falls deaths in both regions (Figures 3.18 and 3.19), it can be seen that in both groups, most cases of this type of fatal injury occur in the later years of life.

Case counts for Aboriginal and Torres Strait Islander males and females were much smaller in Region B than in Region A, so caution is again advised when attempting to interpret patterns in rates of Aboriginal and Torres Strait Islander deaths (Figures 3.18 and 3.19). For example, a total of 3,090 deaths due to Falls of other Australians were recorded in Region B, compared to a total of 10 deaths due to Falls of persons recorded as Aboriginal and Torres Strait Islander.

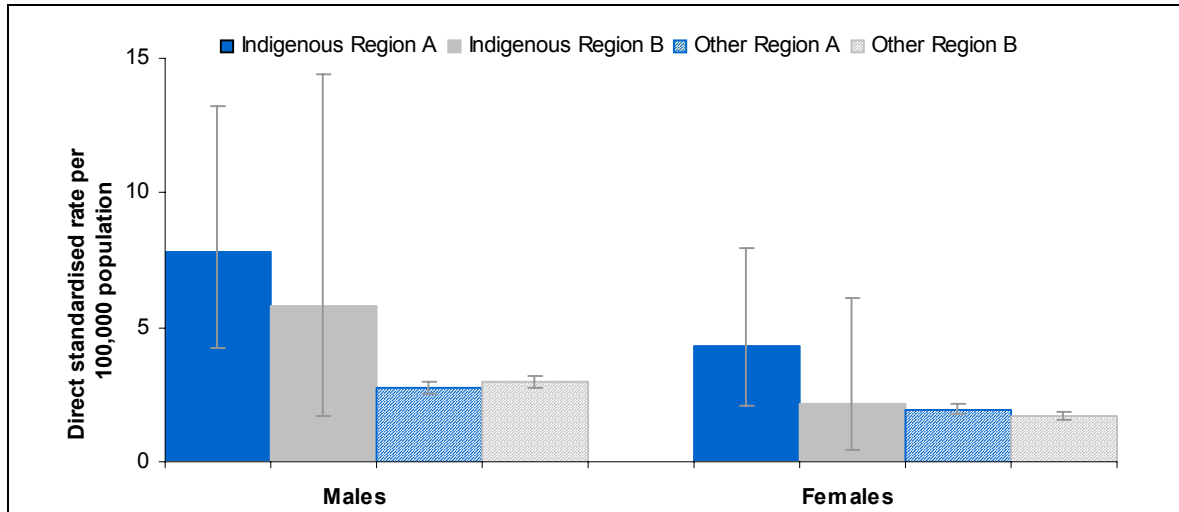


Figure 3.17 Total deaths due to Falls registered 1997-00, Aboriginal and Torres Strait Islander and other Australians by sex, all ages rates; Regions A and B

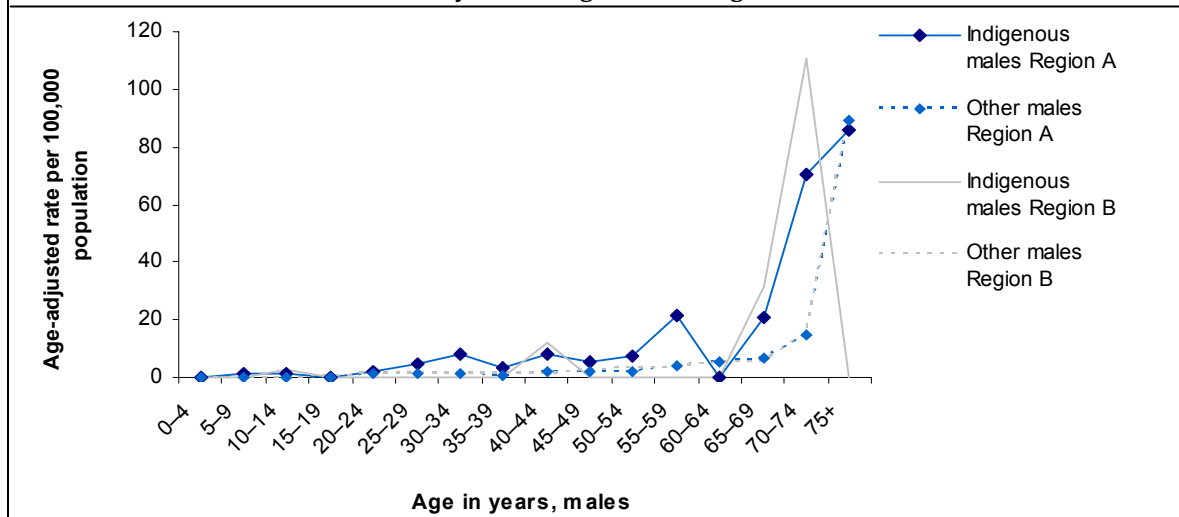


Figure 3.18 Total deaths due to Falls registered 1997-00, Aboriginal and Torres Strait Islander and other Australian males, in five-year age groups; Regions A and B

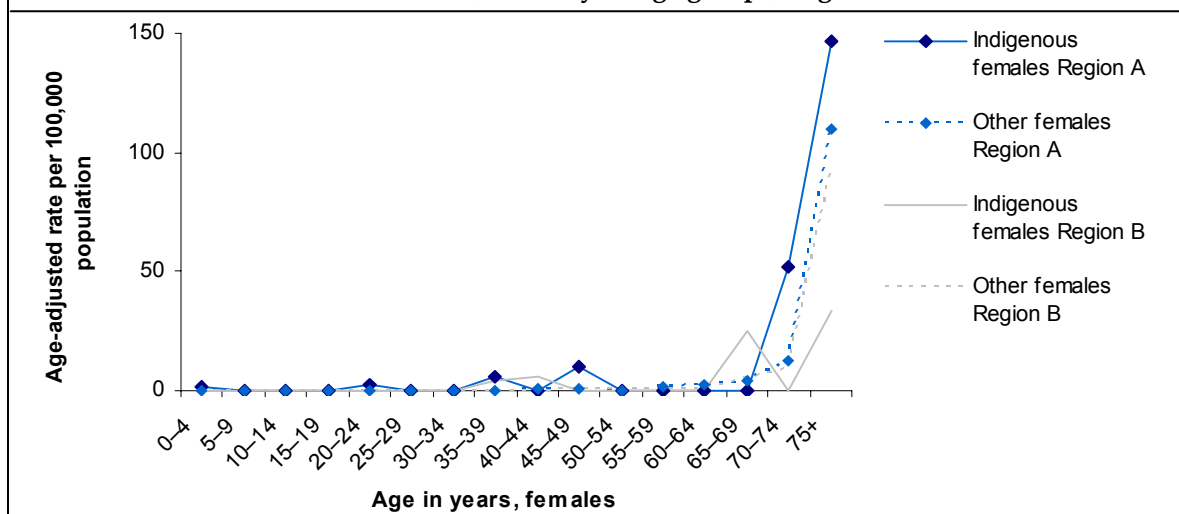


Figure 3.19 Total deaths due to Falls registered 1997-00, Aboriginal and Torres Strait Islander and other Australian females, in five-year age groups; Regions A and B

3.4 Remoteness

3.4.1 Introduction

External cause deaths were examined in terms of the two reporting regions described in Section 3.3. In this section of the report, Aboriginal and Torres Strait Islander injury mortality is described in relation to the remoteness of the usual place of residence of people who have died due to injury. Remoteness is described in relation to mortality from all External causes in each reporting region. In addition, we report on the same five common External causes that were reported on in Section 3.3; Transport, Poisoning by drugs, Suicide, Fatal assault and Falls.

We have analysed injury mortality in relation to remoteness, using aggregated case counts for 1997–00 by ASGC Remoteness zone of usual residence, and reporting Regions A and B. As described in Section 2.8, ARIA+ (Accessibility / Remoteness Index for Australia, + version) is the basis for the ASGC Remoteness Structure, which divides Australia, on a geographical basis, into five zones according to average levels of remoteness by road distance from service centres.

In this section we have used 2001 Census data (usual residence counts) as population denominators for both Aboriginal and Torres Strait Islander and other Australians. Census data were used as denominators because the population projections used elsewhere in this report were not available by remoteness zone (see Chapter 2).

The use of case data for 1997–2000 and population data for 2001 is not ideal. However, the effect of this mismatch of numerator and denominator data can be expected to be small in relation to relevant differences between groups, and in relation to uncertainty due to small case numbers and to unreliable identification of persons as Aboriginal and Torres Strait Islander.

In each section below, case numbers are shown in a table to illustrate the size of Aboriginal and Torres Strait Islander case counts relative to other Australian case counts assigned to each remoteness zone. Counts for persons recorded as Migratory are shown in the tables and were included in proportion calculations.

Please note that the vertical scale differs between charts in the following sections. In general, the scale for males and persons is twice that for females. An exception is that the scale for the females chart in the section on Falls is twice that for the charts on the same topic for males and persons.

The rates reported in this section are also presented in Appendix B, Tables B2.28–B2.45, and the populations used to calculate the rates are in Tables B2.2–B2.13.

3.4.2 Mortality from all External causes of mortality

Of all Australian males who died due to injury or poisoning during the study period, only 4.9% had lived in a Remote or Very Remote part of Australia (Table 3.11). The equivalent proportion for females was similar (Table 3.12). The pattern was very different for Aboriginal and Torres Strait Islander males and females who lived in Region A and died due to injury.

In Region A, around 55% of Aboriginal and Torres Strait Islander males who died due to an External cause had lived in a Remote or Very Remote place, contrasting with nearly 7% of other Australian males (Table 3.11). Equivalent proportions for External cause deaths of men who had lived in Region B were 9% (Aboriginal and Torres Strait Islander) and 1% (other).

The pattern for females (Table 3.12) was similar to that for males.

Table 3.11 Aboriginal and Torres Strait Islander and other Australian deaths due to all External causes registered 1997–00, males, Regions A and B, by Remoteness zone of residence

		Major cities	Inner regional	Outer regional	Remote	Very remote	Migratory	Remote/ Very remote %*
Region A	Indigenous males	111	40	144	114	253	9	54.7
	Other males	4,520	1,649	1,510	382	188	69	6.9
Reported Region B	Indigenous males	86	60	42	13	6	3	9.0
	Other males	8,339	3,274	1,276	109	24	88	1.0
Total		13,056	5,023	2,972	618	471	169	4.9

* 'Remote' plus 'Very Remote' as percentage of row total.

Table 3.12 Aboriginal and Torres Strait Islander and other Australian deaths due to all External causes registered 1997–00, females, Regions A and B, by Remoteness zone of residence

		Major cities	Inner regional	Outer regional	Remote	Very remote	Migratory	Remote/ Very remote %*
Region A	Indigenous females	32	12	72	44	111	9	55.4
	Other females	2,101	762	558	118	35	13	4.3
Reported Region B	Indigenous females	24	18	22	6	3	2	12.0
	Other females	3,955	1,442	491	32	4	13	0.6
Total		6,112	2,234	1,143	200	153	37	3.6

* 'Remote' plus 'Very Remote' as percentage of row total.

In the Major Cities remoteness zone, injury mortality rates for Aboriginal and Torres Strait Islander males in Region A and in Region B were significantly higher than rates for Australian males in either region (Figure 3.20). Rates for Aboriginal and Torres Strait Islander males and other males were similar for both regions in the Inner Regional zone. For the Outer Regional, Remote and Very Remote zones (and overall), rates for Aboriginal and Torres Strait Islander males in Region A were significantly higher than rates for other Australian males in both regions. Small case numbers for Aboriginal and Torres Strait Islander males in remote zones in Region B produce less certain rates, indicated by the wide 95% confidence intervals.

Rates for females were lower than those for males (Figure 3.21). Patterns of variation of rates by remoteness zone were broadly similar to those for males. However, rates for Aboriginal and Torres Strait Islander females in Major Cities did not differ significantly from rates for other females in either region. Significantly higher rates for Aboriginal and Torres Strait Islander females occurred only in the three most remote zones in Region A.

The pattern for persons was similar to that for males (Figure 3.22).

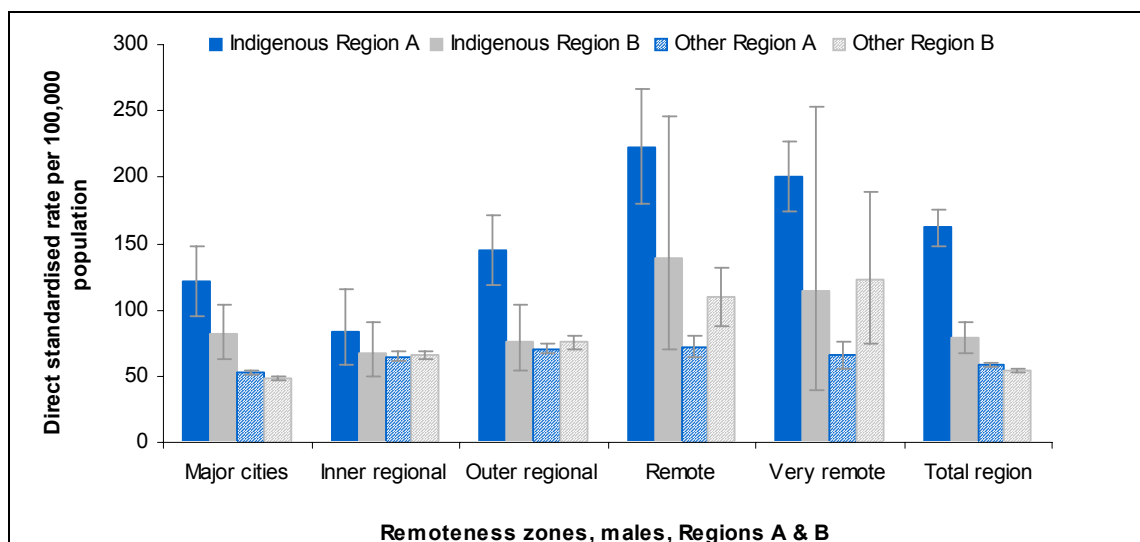


Figure 3.20 Total deaths due to External causes registered 1997-00, Aboriginal and Torres Strait Islander and other Australian males; Regions A and B

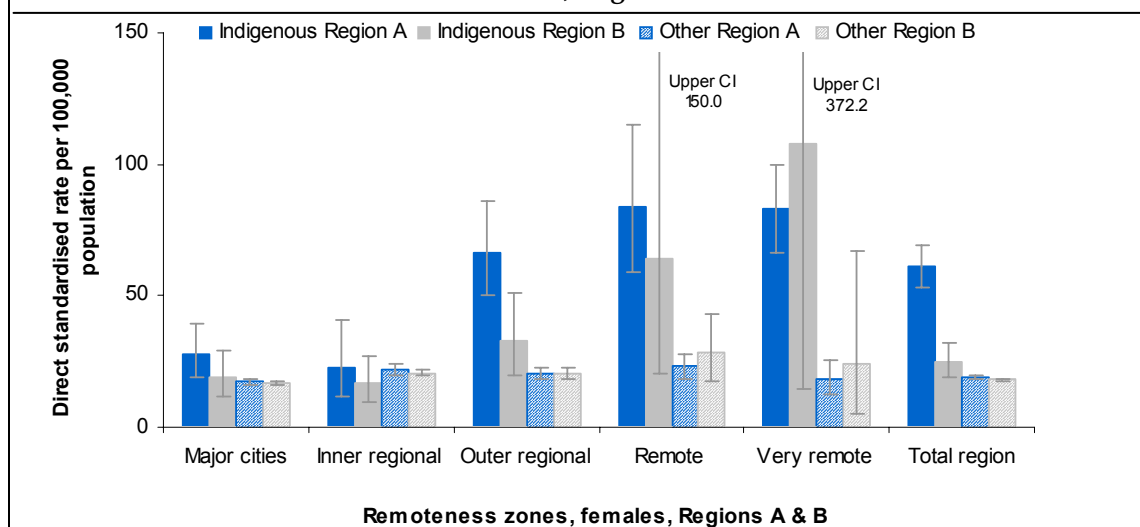


Figure 3.21 Total deaths due to External causes registered 1997-00, Aboriginal and Torres Strait Islander and other Australian females; Regions A and B

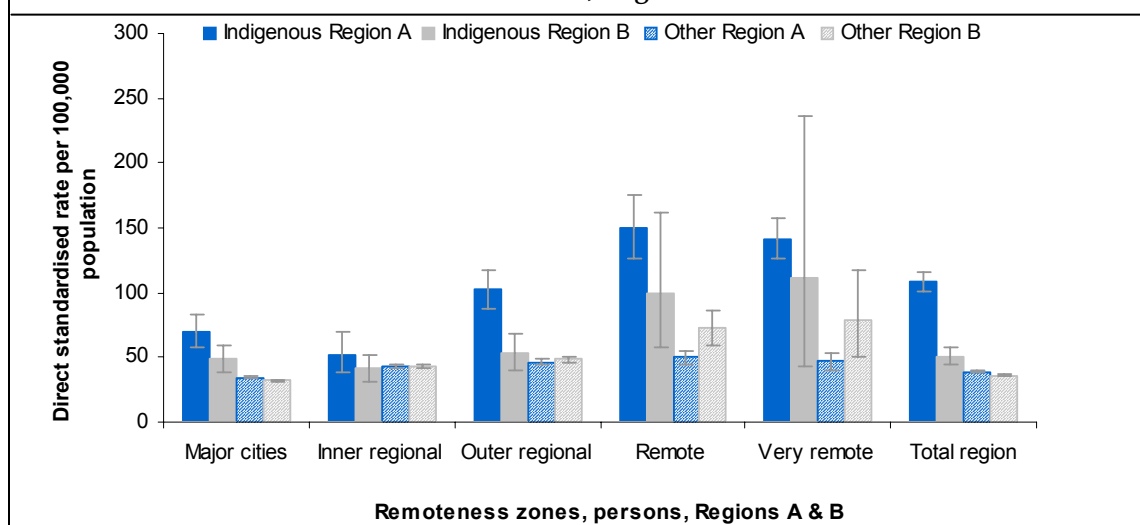


Figure 3.22 Total deaths due to External causes registered 1997-00, Aboriginal and Torres Strait Islander and other Australian persons; Regions A and B

3.4.3 Land transport (Transport)

Of all Australian males who died due to this External cause, 6.4% were normally resident in Remote or Very Remote areas of the country (Table 3.13). For females, the equivalent proportion was 4.9% (Table 3.14).

The proportion of remote area residents was higher among Transport deaths in Region A than in Region B, and higher among Aboriginal and Torres Strait Islander persons than other Australian persons. In Region A, 61% of Aboriginal and Torres Strait Islander males who died due to Transport injuries, and 59% of Aboriginal and Torres Strait Islander females, were residents of remote areas.

Table 3.13 Aboriginal and Torres Strait Islander and other Australian deaths due to Transport registered 1997–00, males, Regions A and B, by Remoteness zone of residence

		Major cities	Inner regional	Outer regional	Remote	Very remote	Migratory	Remote/Very remote %*
Region A	Indigenous males	27	5	35	24	84	1	61.4
	Other males	893	469	454	133	63	14	9.7
Reported Region B	Indigenous males	13	15	14	6	0	0	12.5
	Other males	1,776	889	366	26	6	15	1.0
Total		2,709	1,378	869	189	153	30	6.4

* 'Remote' plus 'Very Remote' as percentage of row total.

Table 3.14 Aboriginal and Torres Strait Islander and other Australian deaths due to Transport registered 1997–00, females, Regions A and B, by Remoteness zone of residence

		Major cities	Inner regional	Outer regional	Remote	Very remote	Migratory	Remote/Very remote %*
Region A	Indigenous females	9	4	19	14	32	0	59.0
	Other females	353	209	163	41	11	5	6.6
Reported Region B	Indigenous females	8	5	10	0	0	0	..
	Other females	778	368	130	8	0	2	0.6
Total		1,148	586	322	63	43	7	4.9

* 'Remote' plus 'Very Remote' as percentage of row total.

Transport mortality rates for other Australian males generally rose with the remoteness of their place of residence (Figure 3.23). A broadly similar pattern occurred for Aboriginal and Torres Strait Islander males, though with notably high rates for residents of the Remote zone and the Very Remote zone of Region A. The wide CI's indicate small case numbers in some categories.

The pattern of rates for females (Figure 3.24) is similar to that for males, but at lower rates (note the scale difference between Figure 3.24 and Figures 3.23 and 3.25). Rates for Aboriginal and Torres Strait Islander females in the Remote and Very Remote zones of Region A were higher than rates for Aboriginal and Torres Strait Islander

females in Region B, and higher than rates for other Australian females in both regions.

The pattern of rates for persons (Figure 3.25) is similar to that seen for males. Rates for Aboriginal and Torres Strait Islander persons in Region A were much higher than rates for Aboriginal and Torres Strait Islander persons in Region B, and higher than rates for Other Australian persons in both regions, in the Very Remote zone, and overall. The rate for Aboriginal and Torres Strait Islander persons in Region A was also higher than that for other Australian persons in the Major Cities, Outer Regional and Remote zones.

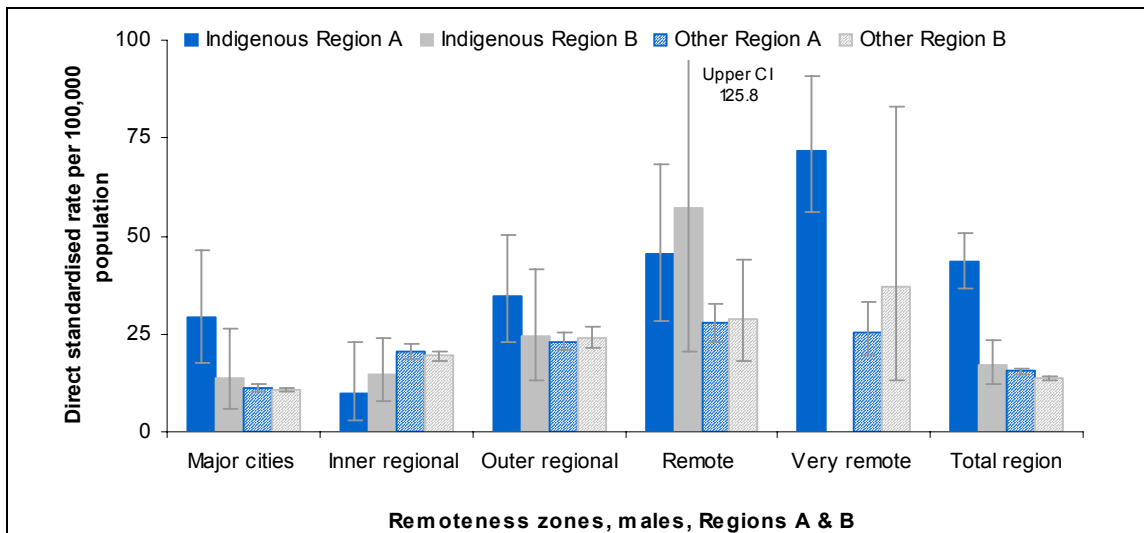


Figure 3.23 Total deaths due to Transport registered 1997-00, Aboriginal and Torres Strait Islander and other Australian males; Regions A and B

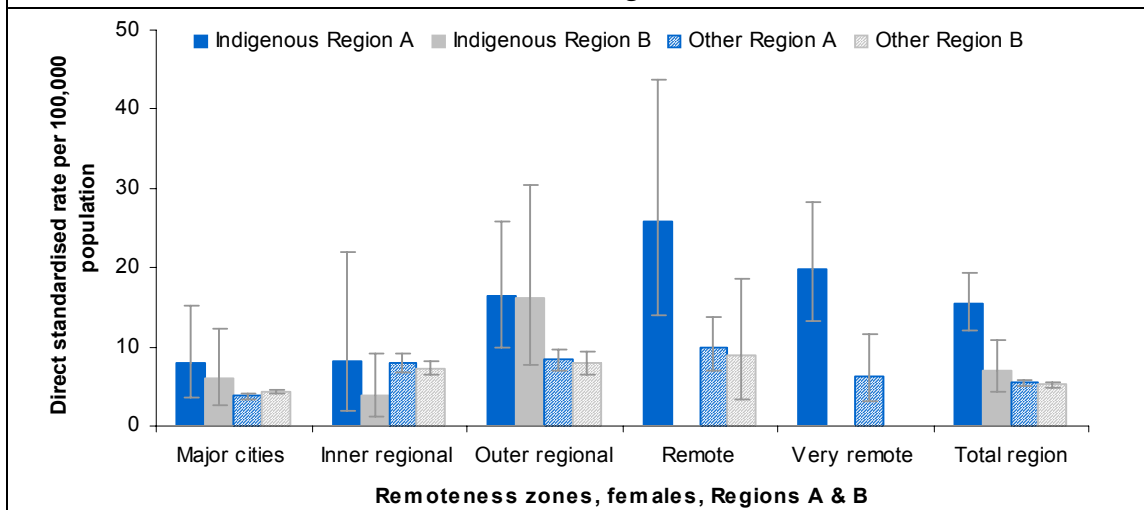


Figure 3.24 Total deaths due to Transport registered 1997-00, Aboriginal and Torres Strait Islander and other Australian females; Regions A and B

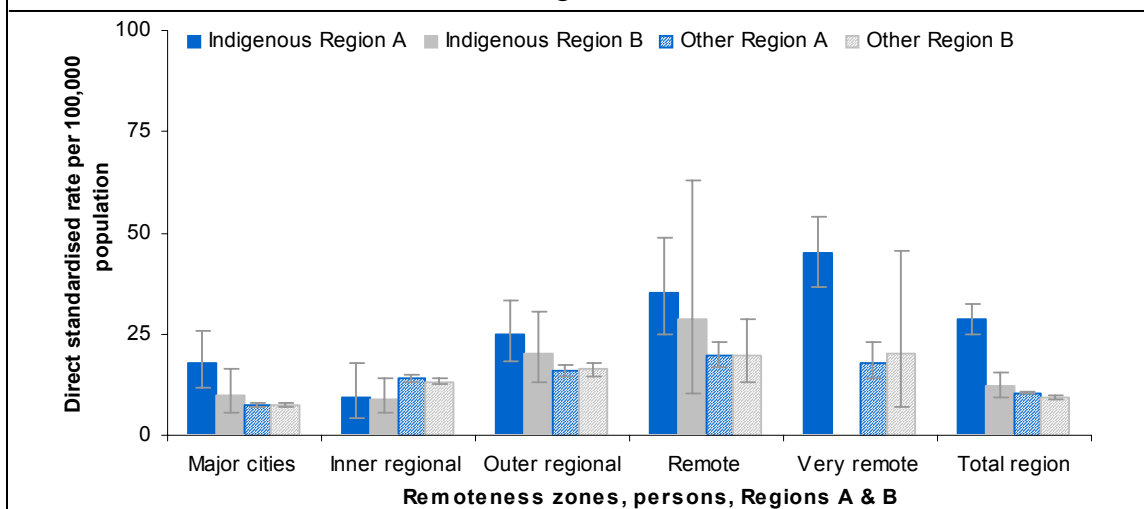


Figure 3.25 Total deaths due to Transport registered 1997-00, Aboriginal and Torres Strait Islander and other Australian persons; Regions A and B

3.4.4 Poisoning—drugs

For cases of death due to Poisoning by drugs, the pattern of deaths in relation to remoteness of place of usual residence was very different to that seen for the External cause Transport, particularly for Aboriginal and Torres Strait Islander males in Region A.

For all males whose death was attributable to poisoning by drugs, only 1.7% are known to have resided in Remote or Very Remote areas of Australia (Table 3.15). The proportion for females for total Australia was slightly lower, at 1.3% (Table 3.16). The proportion of remote-zone residents among Aboriginal and Torres Strait Islander males in Region A who died due to drug poisoning was much higher than for any other group (25%), but was lower than the equivalent proportion for all External causes (55%, Table 3.15).

In Region A, a total of 28 deaths due to Poisoning from drugs were recorded for Aboriginal and Torres Strait Islander males, 40% of these occurring among residents of Major Cities (Table 3.15). About 67% of other Australian male deaths (total n=593) also involved residents of Major Cities area. In Region B, 23 (57.5%) of 40 Aboriginal and Torres Strait Islander men who died from this cause had lived in Major Cities.

Case counts for both Aboriginal and Torres Strait Islander and other Australian females were lower than for males in both regions (Table 3.16). Twice as many deaths for other Australian females occurred in Region B than in Region A. Slightly more Aboriginal and Torres Strait Islander female deaths occurred in Region A than in Region B, though case numbers were low.

In both Region A and Region B, 50% of Aboriginal and Torres Strait Islander female cases were residents of the Major Cities area. For other Australian females, around 68% of poisoning cases were recorded for those residing in Major Cities in Region A, and nearly 79% in Region B.

Table 3.15 Aboriginal and Torres Strait Islander and other Australian deaths due to Poisoning—drugs registered 1997–00, males, Regions A and B, by Remoteness zone of residence

		Major cities	Inner regional	Outer regional	Remote	Very remote	Migratory	Remote/Very remote %*
Region A	Indigenous males	11	2	7	5	2	1	25.0
	Other males	395	95	62	15	9	17	4.0
Reported Region B	Indigenous males	23	10	6	0	0	1	..
	Other males	975	193	39	1	0	26	0.1
Total		1,404	300	114	21	11	32	1.7

* 'Remote' plus 'Very Remote' as percentage of row total.

Table 3.16 Aboriginal and Torres Strait Islander and other Australian deaths due to Poisoning-drugs registered 1997–00, females, Regions A and B, by Remoteness zone of residence

		Major cities	Inner regional	Outer regional	Remote	Very remote	Migratory	Remote/Very remote %*
Region A	Indigenous females	7	3	3	0	1	0	7.1
	Other females	160	42	26	7	0	1	3.0
Reported Region B	Indigenous females	5	4	1	0	0	0	..
	Other females	407	92	12	2	0	5	0.4
Total		579	141	42	9	1	6	1.3

* 'Remote' plus 'Very Remote' as percentage of row total.

In contrast to the other selected External causes, deaths due to Poisoning by drugs were highest for usual residents of the Major Cities zone, and lowest for residents of the Very Remote zone for both Aboriginal and Torres Strait Islander and other Australian males in both regions (Figure 3.26). In another contrast, rates for Aboriginal and Torres Strait Islander males were significantly higher in Region B than in Region A.

Rates for Aboriginal and Torres Strait Islander females were generally lower than for Aboriginal and Torres Strait Islander men, and were not higher in Region B than in Region A (Figure 3.27).

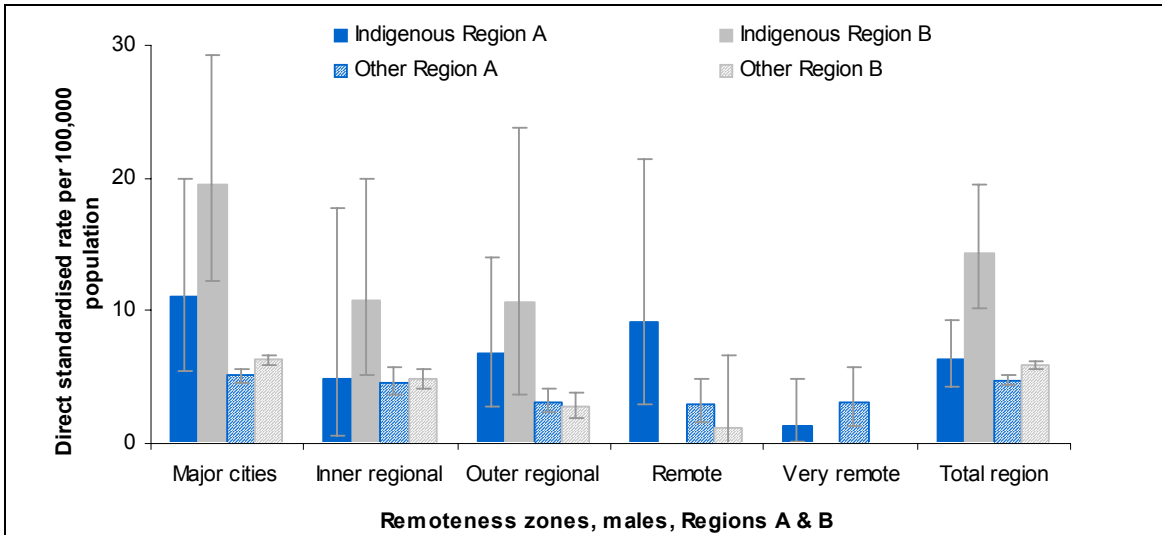


Figure 3.26 Total deaths due to Poisoning by drugs registered 1997-00, Aboriginal and Torres Strait Islander and other Australian males; Regions A and B

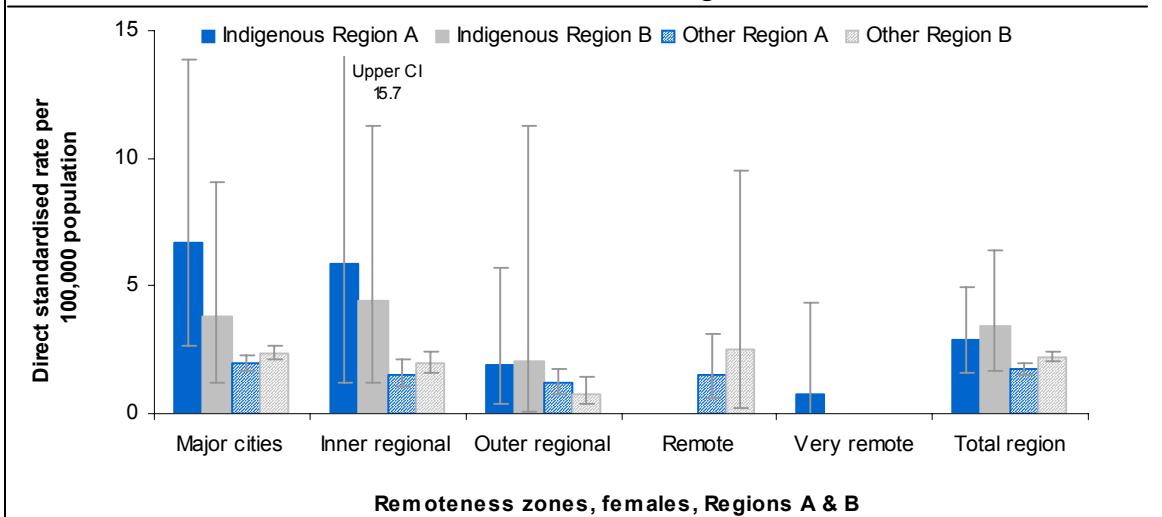


Figure 3.27 Total deaths due to Poisoning by drugs registered 1997-00, Aboriginal and Torres Strait Islander and other Australian females; Regions A and B

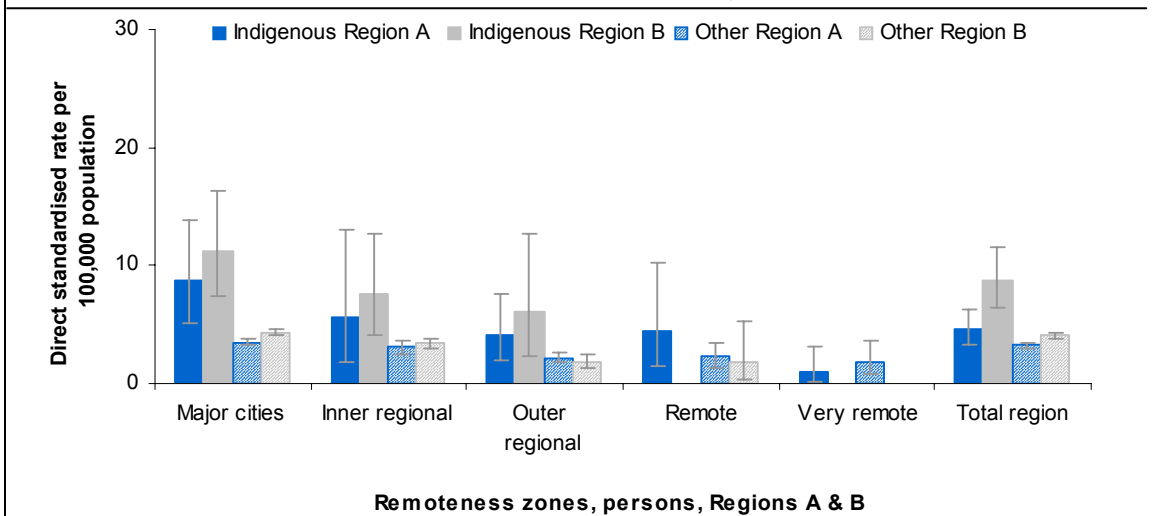


Figure 3.28 Total deaths due to Poisoning by drugs registered 1997-00, Aboriginal and Torres Strait Islander and other Australian persons; Regions A and B

3.4.5 Self-harm

Of all males in Australia who died by suicide, 4.2% were residents of Remote or Very Remote zones. The equivalent proportion for all female suicides was 2.3%.

In contrast, over half of the Aboriginal and Torres Strait Islander men from Region A who died by suicide had lived in Remote zones, as had one-third of the Aboriginal and Torres Strait Islander women (Tables 3.17 and 3.18).

Much the largest number of Aboriginal and Torres Strait Islander male deaths by suicide was recorded for residents of the Very Remote zone in Region A (n=84, Table 3.17). In contrast, suicides among other Australian males in Region A were predominantly among residents of Major Cities (n=1,833).

Case counts for Aboriginal and Torres Strait Islander males were about five times higher than those for their female counterparts in Region A and in Region B (Tables 3.16 and 3.17).

Table 3.17 Aboriginal and Torres Strait Islander and other Australian deaths due to Self-harm registered 1997–00, males, Regions A and B, by Remoteness zone of residence

		Major cities	Inner regional	Outer regional	Remote	Very remote	Migratory	Remote/Very remote %*
Region A	Indigenous males	34	17	47	42	84	3	55.5
	Other males	1,833	579	517	121	47	18	5.4
Reported Region B	Indigenous males	22	17	9	2	1	0	5.9
	Other males	3,027	1,223	428	33	10	26	0.9
Total		4,916	1,836	1,001	198	142	47	4.2

* 'Remote' plus 'Very Remote' as percentage of row total.

Table 3.18 Aboriginal and Torres Strait Islander and other Australian deaths due to Self-harm registered 1997–00, females, Regions A and B, by Remoteness zone of residence

		Major cities	Inner regional	Outer regional	Remote	Very remote	Migratory	Remote/Very remote %*
Region A	Indigenous females	10	2	16	4	11	2	33.3
	Other females	499	145	96	17	8	3	3.3
Reported Region B	Indigenous females	5	4	1	1	0	0	9.1
	Other females	903	274	83	5	2	3	0.6
Total		1,417	425	196	27	21	8	2.3

* 'Remote' plus 'Very Remote' as percentage of row total.

Rates for Aboriginal and Torres Strait Islander males in Region A were significantly higher than rates for Aboriginal and Torres Strait Islander males in Region B, and higher than rates for other Australian males in both regions, in the Outer Regional, Remote and Very Remote zones, and for all remoteness zones combined (Figure 3.29).

Although the rates were much lower, the pattern of rates for females is similar to that of males (Figure 3.30). Rates for Aboriginal and Torres Strait Islander and other females were similar across the remoteness zones, and between regions. In the Outer Regional zone, rates for Aboriginal and Torres Strait Islander females in Region A were significantly higher than rates for Aboriginal and Torres Strait Islander females in Region B. Total rates for Aboriginal and Torres Strait Islander females in Region A were higher than rates for Aboriginal and Torres Strait Islander females in Region B, and higher than rates for other Australian females in both regions.

The pattern of rates for persons in both regions resembles those of the males (Figure 3.31). Rates for Aboriginal and Torres Strait Islander persons in Region A were significantly higher than rates for Aboriginal and Torres Strait Islander persons in Region B, and higher than rates for other Australian persons in both regions in the Outer Regional and Remote zones, and overall.

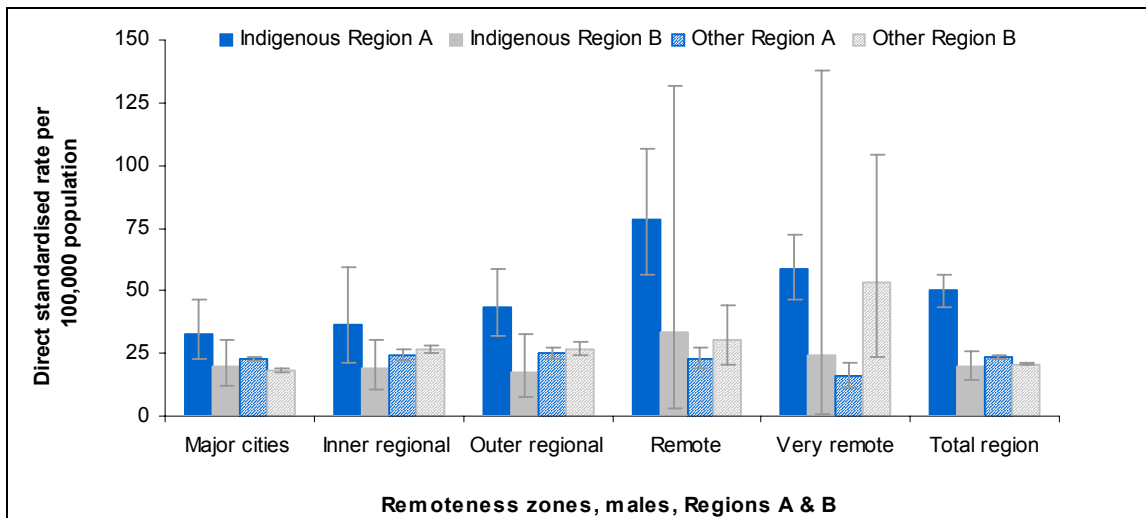


Figure 3.29 Total deaths due to Self-harm registered 1997-00, Aboriginal and Torres Strait Islander and other Australian males; Regions A and B

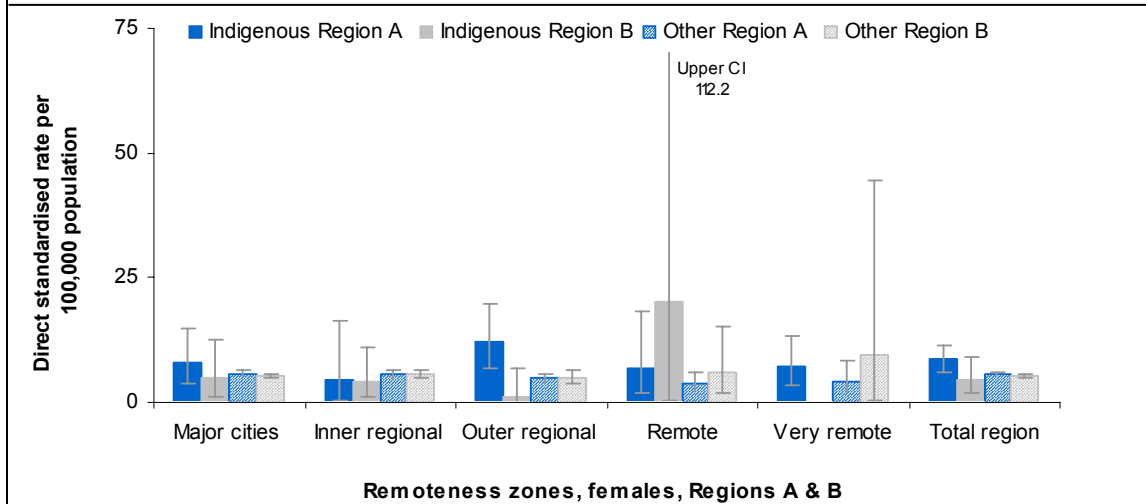


Figure 3.30 Total deaths due to Self-harm registered 1997-00, Aboriginal and Torres Strait Islander and other Australian females; Regions A and B

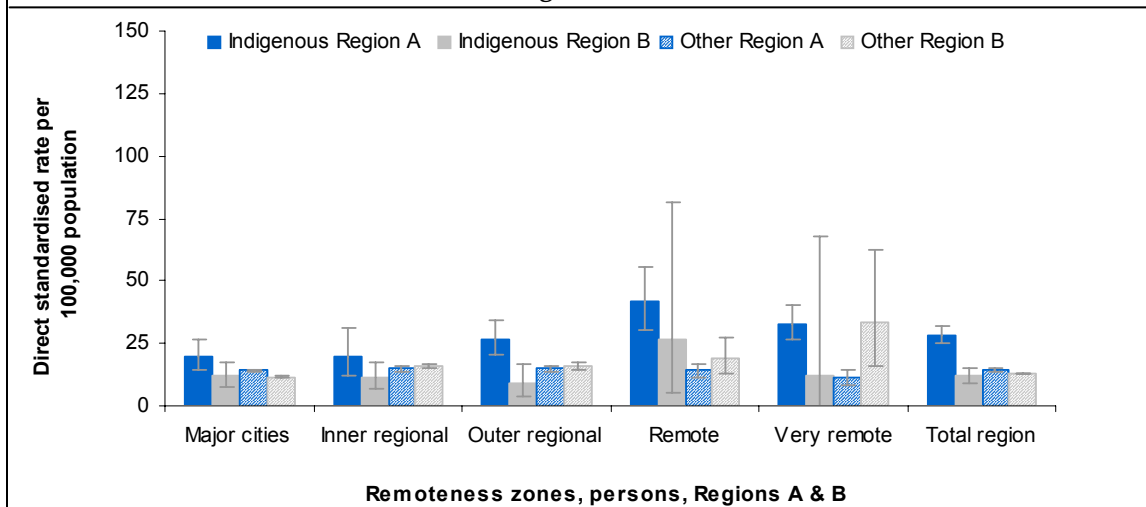


Figure 3.31 Total deaths due to Self-harm registered 1997-00, Aboriginal and Torres Strait Islander and other Australian persons; Regions A and B

3.4.6 Fatal assault

Eight per cent of all Australian males who died as a result of Fatal assault had been resident in the most remote parts of the country (Table 3.19). The equivalent proportion for Australian females (13%) was higher than that of males (Table 3.20).

Of the 61 Aboriginal and Torres Strait Islander male residents of Region A who died due to fatal assault, 36 (59%) were residents of the Remote and Very Remote zones (Table 3.19). The equivalent proportion among other male residents of Region A who died from this cause was 8%.

In Region B, case counts for both Aboriginal and Torres Strait Islander (59%), and other Australian (91%) males were concentrated in the Major Cities and Inner Regional areas. Case counts for Aboriginal and Torres Strait Islander males in the Major Cities and Inner Regional areas of Region B were higher than in Region A, and case counts in Region B were lower than in Region A for the Remote and Very Remote areas.

In Region A, 71% (n=40) of total Aboriginal and Torres Strait Islander female cases (n=56) were residents of the Remote zones (Table 3.20). Conversely, 80% of other Australian female cases (n=110) involved residents of Major Cities and Inner Regional zones.

As was the case for their male counterparts, counts for Aboriginal and Torres Strait Islander females in Region B were mostly in the Major Cities and Regional zones, but in very small numbers.

Table 3.19 Aboriginal and Torres Strait Islander and other Australian deaths due to Fatal assault registered 1997-00, males, Regions A and B, by Remoteness zone of residence

		Major cities	Inner regional	Outer regional	Remote	Very remote	Migratory	Remote/ Very remote %*
Region A	Indigenous males	8	3	12	10	26	2	59.0
	Other males	161	40	43	12	9	7	7.7
Reported Region B	Indigenous males	11	6	5	3	2	2	17.2
	Other males	349	87	31	5	2	7	1.5
Total		529	136	91	30	39	18	8.2

* 'Remote' plus 'Very Remote' as percentage of row total.

Table 3.20 Aboriginal and Torres Strait Islander and other Australian deaths due to Fatal assault registered 1997-00, females, Regions A and B, by Remoteness zone of residence

		Major cities	Inner regional	Outer regional	Remote	Very remote	Migratory	Remote/ Very remote %*
Region A	Indigenous females	1	0	13	9	31	2	71.4
	Other females	83	27	15	8	4	1	8.7
Reported Region B	Indigenous females	2	4	2	1	0	1	10.0
	Other females	153	47	17	0	0	1	..
Total		239	78	47	18	35	5	12.6

* 'Remote' plus 'Very Remote' as percentage of row total.

Mortality from this cause generally rose with remoteness. This pattern was more marked for Aboriginal and Torres Strait Islander males and females than for others (Figures 3.32–3.34).

For males resident in Region A, the Aboriginal and Torres Strait Islander rate was significantly higher than the rate for other males in all remoteness zones except Inner Regional (Figure 3.32). A similar pattern is present for females resident in Region A, except for the Major Cities zone, where the number of Aboriginal and Torres Strait Islander cases was very small (Figure 3.33).

The pattern of rates for persons (Figure 3.34) was similar to that of males.

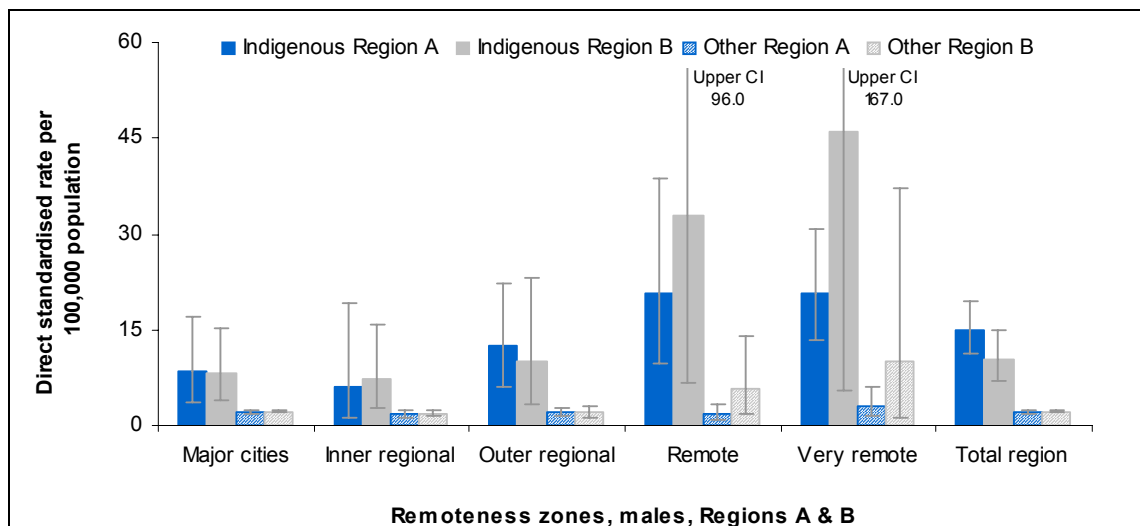


Figure 3.32 Total deaths due to Fatal assault registered 1997-00, Aboriginal and Torres Strait Islander and other Australian males; Regions A and B

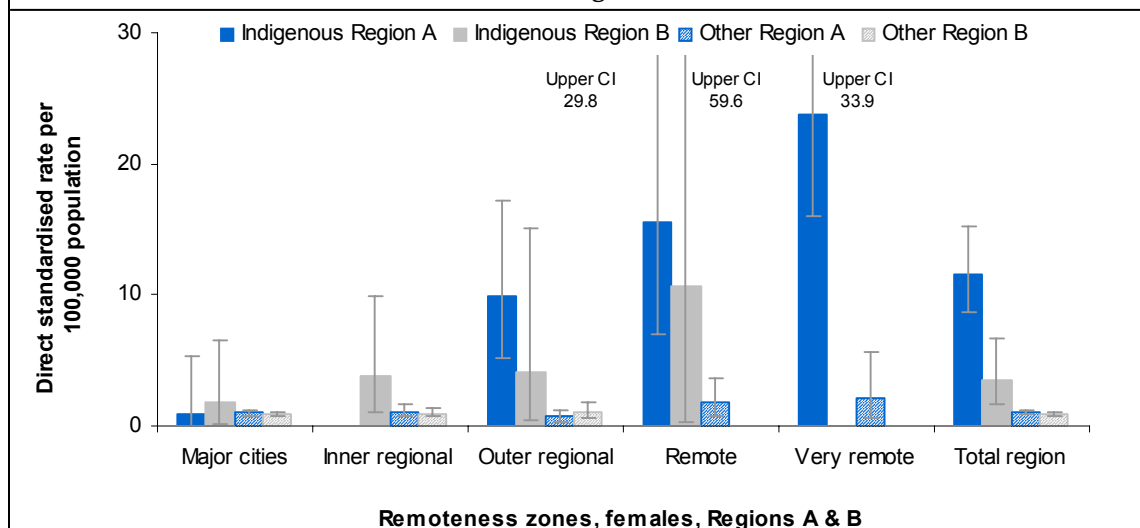


Figure 3.33 Total deaths due to Fatal assault registered 1997-00, Aboriginal and Torres Strait Islander and other Australian females; Regions A and B

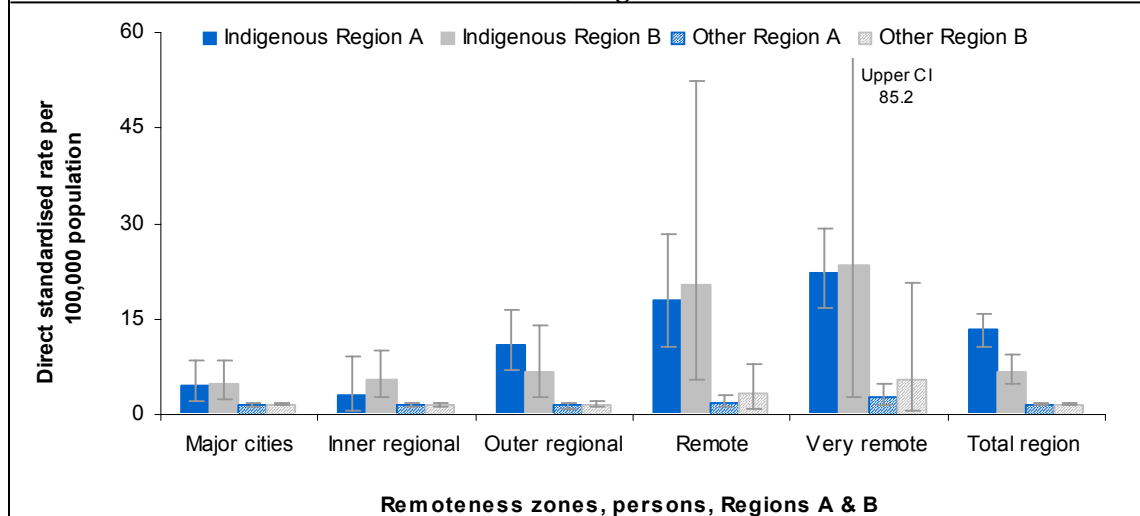


Figure 3.34 Total deaths due to Fatal assault registered 1997-00, Aboriginal and Torres Strait Islander and other Australian persons; Regions A and B

3.4.7 Falls

Falls are a common External cause of death in Australia, but not among Aboriginal and Torres Strait Islander Australians. This reflects the small number of Aboriginal and Torres Strait Islander people who live to the ages at which this cause of death is common.

Of all Australian males who died from a fall, 2.3% lived in remote zones (Table 3.21). The equivalent proportion for females was 1.7% (Table 3.22).

The small numbers of Aboriginal and Torres Strait Islander cases (36 in Region A and 10 in Region B) complicate assessment of their distribution by remoteness zone. Nevertheless, residents of remote areas were prominent among Aboriginal and Torres Strait Islander fall-related deaths in Region A.

Table 3.21 Aboriginal and Torres Strait Islander and other Australian deaths due to Falls registered 1997-00, males, Regions A and B, by Remoteness categories

		Major cities	Inner regional	Outer regional	Remote	Very remote	Migratory	Remote/Very remote %*
Region A	Indigenous males	3	2	8	4	4	0	38.1
	Other males	423	164	122	23	10	3	4.4
Reported Region B	Indigenous males	3	2	1	0	0	0	..
	Other males	942	316	132	5	3	0	0.6
Total		1,371	484	263	32	17	3	2.3

* 'Remote' plus 'Very Remote' as percentage of row total.

Table 3.22: Aboriginal and Torres Strait Islander and other Australian deaths due to Falls registered 1997-00, females, Regions A and B, by Remoteness categories

		Major cities	Inner regional	Outer regional	Remote	Very remote	Migratory	Remote/Very remote %*
Region A	Indigenous females	1	1	4	3	6	0	60.0
	Other females	643	212	174	25	3	1	2.6
Reported Region B	Indigenous females	1	0	1	0	1	1	25.0
	Other females	1,086	437	161	10	0	0	0.6
Total		1,731	650	340	38	10	2	1.7

* 'Remote' plus 'Very Remote' as percentage of row total.

Variation of mortality rates with remoteness of place of residence was less evident for falls than for the other External causes considered in this section (Figures 3.35-3.37). The pattern did not differ much between males and females (note that the high point estimate for females in the Very Remote zone of Region B is based on a single death). Nor did the pattern differ greatly between Region A and Region B.

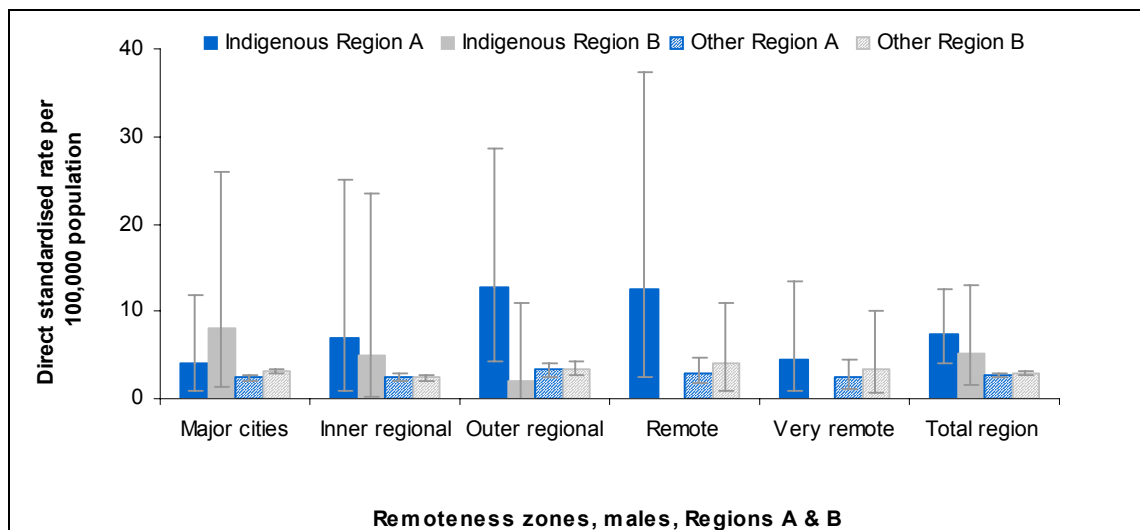


Figure 3.35 Total deaths due to Falls registered 1997–00, Aboriginal and Torres Strait Islander and other Australian males; Regions A and B

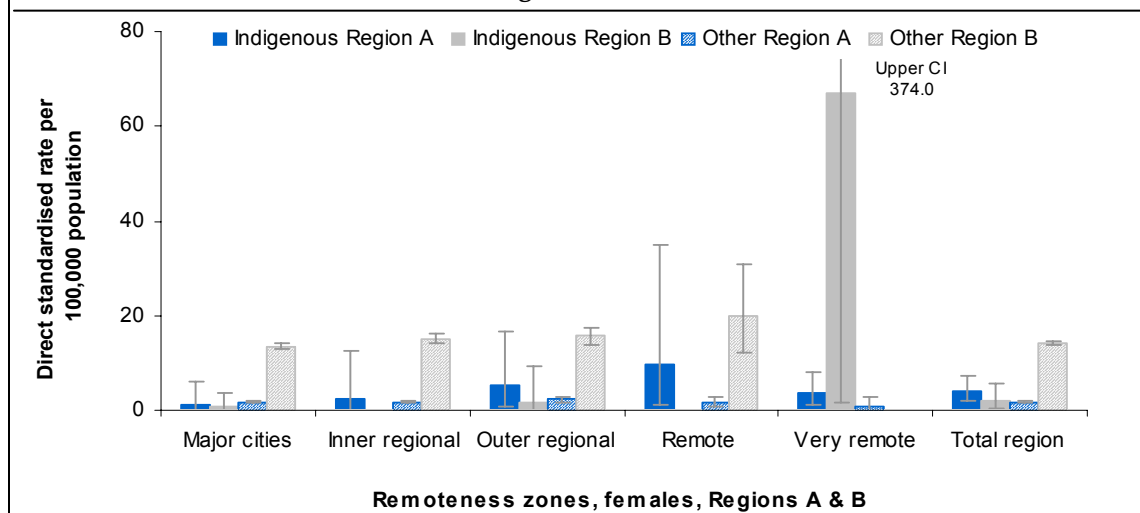


Figure 3.36 Total deaths due to Falls registered 1997–00, Aboriginal and Torres Strait Islander and other Australian females; Regions A and B

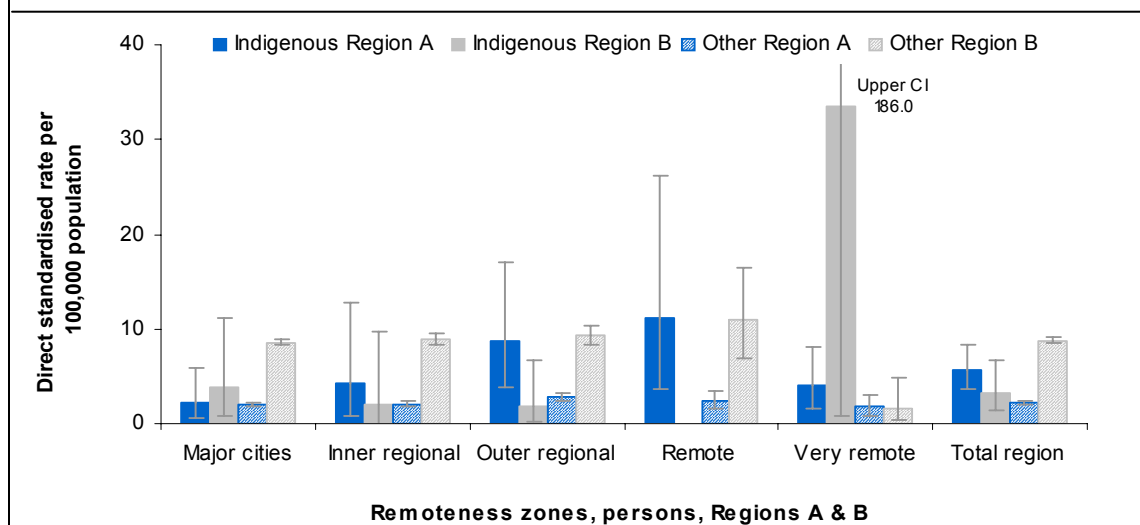


Figure 3.37 Total deaths due to Falls registered 1997–00, Aboriginal and Torres Strait Islander and other Australian persons; Regions A and B

3.5 Adjusting for the effect of remoteness

Results presented in Section 3.4 show marked differences in levels of injury mortality between the Aboriginal and Torres Strait Islander and other segments of the Australian population. In general, however, rates tend to rise with remoteness.

The proportion of Aboriginal and Torres Strait Islander Australians who live in remote areas is much larger than the proportion in the rest of the population, especially in Region A (Table 3.23).

Table 3.23 Populations by Aboriginal and Torres Strait Islander status, reporting region and remoteness zone, Australia 2001 (column percentages)

Remoteness zone	Region A		Region B	
	Indigenous	Other	Indigenous	Other
Major cities	23.8	60.4	40.5	70.5
Inner regional	11.1	18.9	34.0	21.7
Outer regional	24.7	15.2	20.7	7.3
Remote	11.9	3.7	3.5	0.4
Very remote	28.4	1.7	1.3	0.1
Migratory	0.1	0.1	0.0	0.0
Total Australia	100	100	100	100

Because remoteness of usual residence is a risk factor for injury mortality, and as distribution by remoteness differs for Aboriginal and Torres Strait Islander and other persons, part of the overall excess injury mortality rate observed for Aboriginal and Torres Strait Islander Australians might be explained in terms of the differences in patterns of residence. This section presents results of an analysis of the nature and extent of the impact of remoteness on injury mortality rates.

This section reports an analysis based on direct standardisation, taking the whole population distribution by remoteness zones as the reference. This is a preliminary to multivariate modelling, planned for later work.

The method is equivalent to that used throughout this report to standardise rates to allow for different age structures of Aboriginal and Torres Strait Islander and other segments of the Australian population. Rates standardised by age are compared with rates standardised by age and remoteness to provide an indication of the extent to which remoteness accounts for observed findings. This is assessed in terms of the effect of remoteness adjustment on ratios of Aboriginal and Torres Strait Islander injury mortality rates to injury mortality rates in the rest of the population.

The values of the rate ratios before adjustment for remoteness are nearly all above 1.0 (i.e. Aboriginal and Torres Strait Islander rates are higher than other rates, see Tables 3.24 and 3.25).

In Region A (Table 3.24), Aboriginal and Torres Strait Islander:other rate ratios were reduced by as much as one-half, when adjusted for remoteness for all External causes examined, except for Poisoning by drugs, for which the rate ratio nearly doubled. This indicates that the large proportion of Aboriginal and Torres Strait Islander people living in the remote areas, in which injury rates are high, is a factor contributing

substantially to the excess injury mortality of this part of the Australian population. This pattern is much more marked for Region A than for Region B. In large part, this is because most of Australia's remote residents live in Region A.

The influence of adjustment for remoteness differed in extent and direction between the types of External cause considered. Aboriginal and Torres Strait Islander rates for mortality due to Transport, Self-harm and Fatal assault declined when adjusted for remoteness, and rates for Poisoning rose (Tables 3.24 and 3.25). The effect of adjustment for remoteness was much more pronounced for Aboriginal and Torres Strait Islander persons in Region A than for Aboriginal and Torres Strait Islander persons in Region B, or for other persons in either region (Figures 3.35 and 3.36).

Table 3.24 Total deaths due to selected and total External causes registered 1997-00, Aboriginal and Torres Strait Islander and other Australian persons: Region A

External cause of injury	Persons	Adjusted rates			
		Age*	Ratio†	Age and remoteness^	Ratio†
Transport	Indigenous	28.7	2.7	17.3	1.7
	Other	10.5		10.0	
Poisoning - drugs	Indigenous	4.6	1.4	7.4	2.3
	Other	3.2		3.2	
Suicide	Indigenous	28.4	2.0	21.0	1.5
	Other	14.4		14.3	
Fatal assault	Indigenous	13.3	8.5	5.3	3.5
	Other	1.6		1.5	
Falls	Indigenous	5.6	2.5	3.5	1.6
	Other	2.2		2.2	
Total External causes	Indigenous	108.4	2.8	72.0	1.9
	Other	38.8		38.0	

*Annual average rates per 100,000 population, age-standardised (direct method).

^Standardised for age and remoteness.

† Ratio of age-standardised rate for Indigenous to equivalent rate for Other persons.
Region A comprises SA, NT, WA and Qld.

Table 3.25 Total deaths due to selected and total External causes registered 1997–00, Aboriginal and Torres Strait Islander and other Australian persons: Region B

External cause of injury	Persons	Adjusted rates			
		Age*	Ratio†	Age and remoteness^	Ratio†
Transport	Indigenous	12.0	1.3	11.0	1.1
	Other	9.4		10.0	
Poisoning - drugs	Indigenous	8.7	2.1	9.6	2.5
	Other	4.0		3.8	
Suicide	Indigenous	11.9	0.9	11.7	0.9
	Other	13.0		13.5	
Fatal assault	Indigenous	6.8	4.3	5.7	3.5
	Other	1.6		1.6	
Falls	Indigenous	3.3	1.4	3.5	1.5
	Other	2.3		2.3	
Total External causes	Indigenous	50.8	1.4	49.4	1.3
	Other	35.9		37.4	

*Annual average rates per 100,000 population, age-standardised (direct method).

^Standardised for age and remoteness.

† Ratio of age-standardised rate for Indigenous to equivalent rate for Other persons.

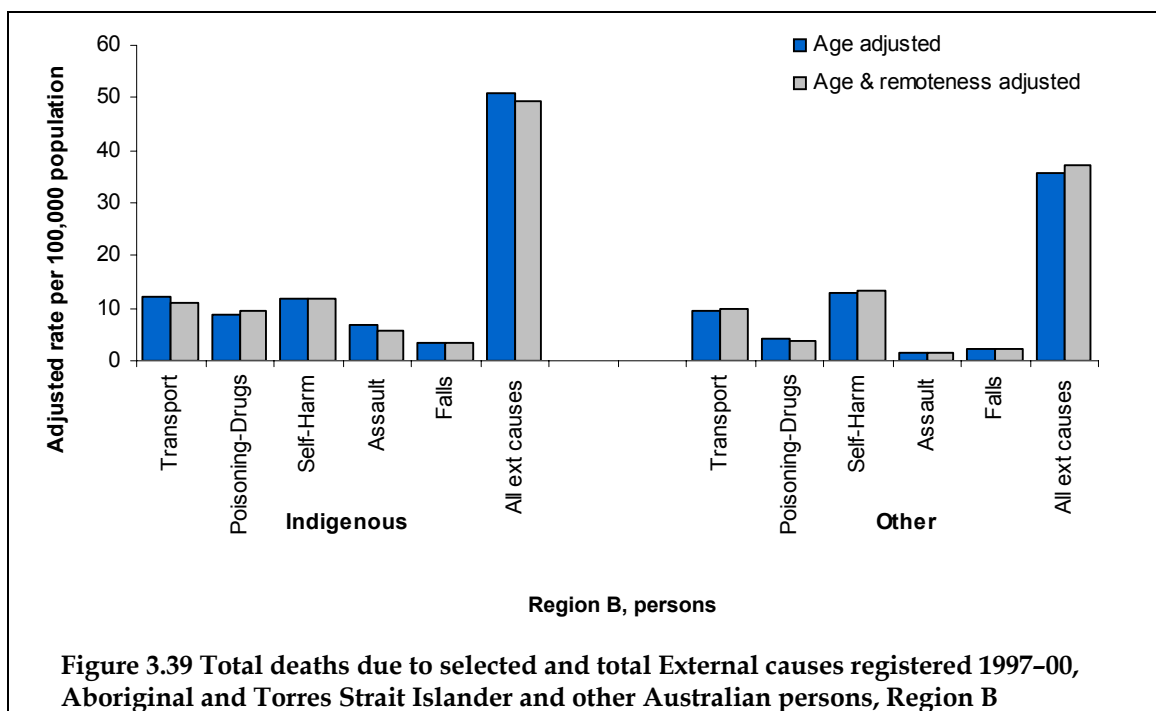
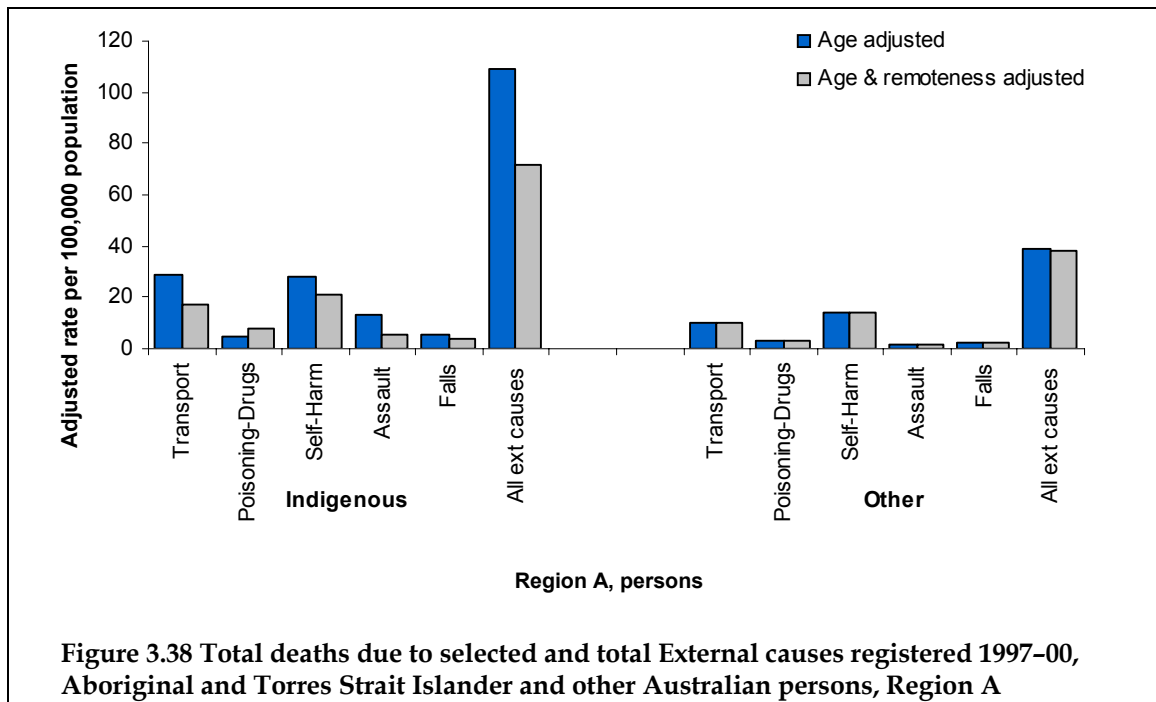
Region B comprises NSW, Vic, Tas and ACT.

Figure 3.38 shows, for reporting Region A, the difference between age-adjusted rates, and age and remoteness-adjusted rates for total External causes and the five sub-types analysed in this report, for Aboriginal and Torres Strait Islander and other Australians.

This figure shows the reduction in age and remoteness-adjusted rates for Aboriginal and Torres Strait Islander persons for all selected External causes except Poisoning by drugs, which increased with adjustment. Remoteness-adjustment had little effect on rates for other Australian persons in Region A.

Figure 3.39 presents equivalent information for Region B. The effect of remoteness-adjustment on Aboriginal and Torres Strait Islander rates was similar to that seen in Region A, but less pronounced. The effect of remoteness-adjustment on rates for other Australians was a little more pronounced than in Region A, but still small.

Remoteness is a risk factor for injury mortality, overall and for most sub-types studied in this report. The impact of this risk factor is greater for Aboriginal and Torres Strait Islander persons than for the remainder of the Australian population because a larger proportion of the former live in remote parts of Australia.



4 Discussion

4.1 Findings

This report describes the reported injury mortality experience of Aboriginal and Torres Strait Islander Australians during the period 1997–2000. Age, sex, major types of External cause of fatal injury and remoteness of place of usual residence are the main variables considered, in addition to comparison of injury death rates for persons recorded as being Aboriginal and Torres Strait Islander with rates for other Australians. Trends are not reported because uncertainties about data reliability are too great.

Findings have generally been reported separately for two parts of Australia, described as Region A and Region B. Region B comprises the three states in the South-East part of Australia (New South Wales, Victoria and Tasmania) and the Australian Capital Territory. Region A is the rest of Australia. This approach was adopted to help enable two aims to be met. The aims are to report available data for all parts of Australia, and to do so in a way that acknowledges likely differences in the completeness of ascertainment of Aboriginal and Torres Strait Islander status in source data (see section 2.3 for further details).

Rates of injury mortality for Aboriginal and Torres Strait Islander persons were generally much higher than rates for other Australians. In Region A, the overall injury mortality rate was 2.8 times higher for Aboriginal and Torres Strait Islander persons than for other persons. This is in keeping with previous reports (Harrison & Moller 1994; ABS 2003; ABS/AIHW 1999; ABS/AIHW 2001; Cunningham & Paradies 2000).

Injury mortality rates were generally higher for Aboriginal and Torres Strait Islander males than females. While rates were highest for Aboriginal and Torres Strait Islander males, rate ratios for some types of External cause of injury death were higher for Aboriginal and Torres Strait Islander females than for Aboriginal and Torres Strait Islander males. For example, the annual rate of death due to assault in Region A was higher for Aboriginal and Torres Strait Islander men (15.0 deaths per 100,000 population) than for Aboriginal and Torres Strait Islander women (11.7 deaths per 100,000 population). However, the factor by which the Aboriginal and Torres Strait Islander rates exceeded rates for the rest of the population was 7.5 for men and 11.7 for women.

When jurisdictions were grouped to reflect regions of better (Region A) and lesser (Region B) quality of Aboriginal and Torres Strait Islander ascertainment, Aboriginal and Torres Strait Islander rates and rate ratios were generally much higher in the former. While poorer ascertainment in Region B is probably the main explanation (see Section 4.2), this does not explain all differences observed. In particular, the death rate of Aboriginal and Torres Strait Islander persons due to poisoning by drugs was higher in Region B than in Region A. The period covered by this report coincides with a peak in drug-related mortality, largely concentrated in Sydney and Melbourne, both within Region B.

Remoteness of place of usual residence tends to be associated with higher rates of mortality from External causes of injury. The impact of this factor was greatest in Region A (where 88% of residents of Australia's Remote and Very Remote zones live), and especially for the Aboriginal and Torres Strait Islander part of the population of this region (93% of Aboriginal and Torres Strait Islander Australian persons who lived in Remote or Very Remote zones resided in Region A).

When adjustment was made to allow for the effect of remoteness on mortality rates, the difference between rates for Aboriginal and Torres Strait Islander and other groups became smaller overall and for most External causes studied. Hence, differences in patterns of usual place of residence, in terms of remoteness, account for part of the excess injury mortality rate of Aboriginal and Torres Strait Islander persons.

However, injury mortality rates for Aboriginal and Torres Strait Islander persons remained higher than those for other persons in both regions after adjustment for age and remoteness. This indicates that factors other than age and remoteness of place of usual residence contribute to the excess injury mortality rates observed for Aboriginal and Torres Strait Islander Australians.

As might be expected, *transport-related* fatal injury was found to be influenced by remoteness. In Region A, the rate ratio (Indigenous:other) declined from 2.7 before adjustment for remoteness to 1.7 after adjustment. Long distances between destinations, differences in terrain and quality of road conditions, standard of vehicles, and likelihood of higher speeds sustained for longer periods might contribute to this finding.

A study of single-vehicle roll-over accidents in the 'Top End' of the Northern Territory found that major factors associated with such incidents were road surface, defective vehicles, maleness and Aboriginality, excessive speed, not wearing seat belts and influence of alcohol (Treacy et al. 2002). A study of road injury in Western Australia between 1971 and 1997 found that rates were higher for Aboriginal and Torres Strait Islander people than for non-Indigenous people, and that while the trend was for decreasing rates over time for other Australians, that the trend for Aboriginal and Torres Strait Islander persons was increasing rates (Cercarelli & Knuiman 2002).

Nationally, around 20% of total fatal crashes in 2000 involved unrestrained victims, with a notable increase in male victims (Boswell 2001). Drink driving, lower levels of seat belt usage, driver fatigue and lower levels of law enforcement in rural to remote areas were identified as risks to South Australian drivers in 2000 (Transport SA 2001). Longhurst reported that driving on country or remote roads was found to add to injury severity and the risk of mortality, due to remoteness from medical aid (Safe Driver Training 2004). The same source states that in rural road crashes in developed countries, the main risk factors are speeding, driver fatigue, alcohol level and seatbelt non-compliance.

For Aboriginal and Torres Strait Islander males, the rate ratio for *poisoning by drugs* increased, rather than decreased in both reporting regions after adjustment for remoteness. For Aboriginal and Torres Strait Islander females, there was a small increase in the rate ratio for Poisoning by drugs in Region B, and a substantial rate ratio increase in Region A. This suggests that drug mortality among persons identified as being Aboriginal and Torres Strait Islander is concentrated in the part of the Aboriginal and Torres Strait Islander population recorded as residing in urban areas. Living in urban areas might be a risk factor for drug-related deaths due to greater access to sources of supply of substances such as heroin. This could facilitate use by

existing residents, and existing users might tend to move to live near sources of supply.

Unemployment, lack of nearby health professionals, lack of transport to treatment facilities and division between Aboriginal and Torres Strait Islander and non-Indigenous groups within remote communities have previously been identified as factors contributing to drug use and related harm beyond major urban centres (ANCD 2000).

Williams (Williams 2001) found that although there had been an increase in drug use in regional areas between 1988 and 1998, there were still proportionally fewer users than in metropolitan areas, and these users were more likely than their city counterparts to cease using drugs. The same author also found evidence of an increase in overall crime rates in regional areas during the study period, and reason to associate this upward trend with the increase in drug use (Williams 2001). Williams also reported that people who commenced drug use in metropolitan areas were much more likely to continue using than people who had first experienced drugs elsewhere.

Rates of *fatal self-harm*, or suicide, by both Aboriginal and Torres Strait Islander and other males rose with remoteness. When adjustment was made for remoteness, the rate ratio (Indigenous:other) reduced substantially for males in Region A, and slightly for females. In other words, excess suicide among Aboriginal and Torres Strait Islander males in Region A was predominantly among residents of the more remote areas. Remoteness-adjustment had little effect in Region B.

Suicide has been reported to be higher in rural and remote areas for males in the overall population (Dudley et al. 1998), though findings have not been uniform (Cantor & Slater 1997), and for Aboriginal and Torres Strait Islander males (AIHW 2003).

Many factors contribute to this complex problem (Harrison et al. 2001). A report examining suicides (Aboriginal and non-Aboriginal) in the 'Top End' of the Northern Territory between 1991 and 1998 found that where blood alcohol was measured at time of death, mean levels for Aboriginal cases were almost double the mean levels for other cases (Parker & Ben-Tovim D I 2002). A report based on events in North Queensland examines the Aboriginal cultural, historical and symbolic contexts of suicide, with particular emphasis on the association of alcohol, hanging as a mode of death, and Aboriginal deaths in custody (Hunter et al. 2001). A comprehensive study on Aboriginal suicide with comparison to aboriginal suicide in other countries is also available (Tatz 1999). The Aboriginal and Torres Strait Islander Women's Task Force on Violence examined the effect of dysfunctional community syndrome, trans-generational trauma and marginalisation as some of the precursors to assault, describing a model of violence in socio-structural and historical context (DATSIPD 2000). These and other factors around disruption of traditional community structures are discussed in relation to self-harm and assault in Harrison et al.

Suicide was a major theme for the Royal Commission into Aboriginal Deaths in Custody (Royal Commission into Aboriginal Deaths in Custody 1991), and has been considered in more recent reports (Steenkamp 2000; Dalton 1999). Data available for the present report did not enable this topic to be revisited.

The Healthy Horizons report highlighted higher rates of suicide for males in remote areas, and also the urgent need to improve Aboriginal and Torres Strait Islander health inequalities in remote areas, and improve services such as transport in remote regions,

and the availability of specialist mental health care (National Rural Health Policy Forum 1999).

Adjustment for the effect of remoteness for the External cause category *fatal assault* (i.e. homicide and related causes of death) reduced the rate ratio (Indigenous:other) for Region A by more than half. The rate ratio in Region B decreased by a smaller amount. After adjustment for age and remoteness, the rate ratio (Indigenous:other) was the same in both reporting regions (3.5:1).

While only 1% of the total Australian population was resident in the Northern Territory in the period 1989–1996, 6.6% of total homicides were recorded there (James 1997). In contrast, residents of the Australian Capital Territory were 1.7% of the national population and 0.4% of homicide deaths. The large difference in homicide rates between some regions can be obscured if only large area rates are considered. James points out that for Australia as a whole, the proportions of homicide deaths in urban and rural areas approximated the population in these zones.

In seeking to understand the high rate of homicide in the Northern Territory, James (1997), examined Aboriginality as a factor. This author found that victimisation rates for the non-Indigenous population in that jurisdiction were also higher than for the rest of Australia. When examining alcohol intoxication of the victim, it was found that 75% of Aboriginal and Torres Strait Islander victims were adversely affected, while only 25% of non-Indigenous victims were affected. This author concluded ‘...that rather than the number of Aboriginal homicides, the high level of alcohol involvement is the primary factor underlying the high victimisation rates’ (James 1997).

For the deaths due to unintentional *falls* the rate ratio (Indigenous:other) in Region A decreased by almost half when adjusted for remoteness. In contrast to most other External causes, deaths resulting from Falls are much less prominent for Aboriginal and Torres Strait Islander persons than for the rest of the population. This cause of death is most common in old age, and only a small proportion of the Aboriginal and Torres Strait Islander population reaches the ages at which falls mortality is highest. Small case numbers in the Aboriginal and Torres Strait Islander group makes further interpretation difficult.

In summary the findings reported here confirm previous findings of higher injury mortality rates for Aboriginal and Torres Strait Islander persons than for other Australians. Part of the difference is related to differences in age composition of the two populations, and differences in proportions living in remote areas.

Suicide and transport-related injury are the most common types of External cause of fatal injury for both groups. Differences (and ratios) between rates for the Aboriginal and Torres Strait Islander and other groups differ considerably by type of External cause, gender, age group, and remoteness of usual residence. Aboriginal and Torres Strait Islander deaths due to transport, suicide and fatal assault were particularly prominent in the more remote regions, while deaths due to drug poisoning were prominent in major cities and the less remote areas.

4.2 Data issues

The chief difficulty in the work reported here is the uncertain, and probably poor and varying, ascertainment of Aboriginal and Torres Strait Islander persons among

registered deaths, and the effect of similar misclassification on population estimates. This issue is discussed in section 2.3, in relation to decisions concerning some aspects of the methods used for this project.

This problem is not unique to the topic of injury, and it constrains most population-based investigations of the health status of Aboriginal and Torres Strait Islander people in Australia (Harrison et al. 2001; Cunningham & Paradies 2000; ABS 2003).

From an analytic point of view, the problem is similar to misclassification. However, it is complicated by the fact that it is open to individuals to opt whether to identify themselves (or, in some situations, their family members) as being Aboriginal or Torres Strait Islander, and the fact that propensity to identify as such varies. When combined with factors such as differing data collection practices over time, between places and between information systems, the net effect is ascertainment that is known to vary greatly, but the extent of which is not known with useful precision.

In analyses of the total Australian population, or large parts of it, the type of misclassification described above threatens the validity of estimates for the Aboriginal and Torres Strait Islander population, but normally cannot have a large impact on estimates for the remainder of the population. This is because the highest likely number of misclassified Aboriginal and Torres Strait Islander cases might be large in relation to the number of recognised Aboriginal and Torres Strait Islander cases, but is small in relation to the rest of the population.

The situation is different when analysis focuses on a segment of the Australian population in which the proportion of (recognised) Aboriginal and Torres Strait Islander cases is high. An example is the Very Remote zone of reporting Region A, in which 37% of the total population is estimated to be Aboriginal and Torres Strait Islander (Appendix B). Under these conditions, under-ascertainment of cases as Aboriginal and Torres Strait Islander can misleadingly inflate estimates for the segment not identified as Aboriginal and Torres Strait Islander, as well as falsely lowering Aboriginal and Torres Strait Islander rates (AIHW 2003). For this reason, estimates for both Aboriginal and Torres Strait Islander and other population segments should be interpreted cautiously, particularly for the Very Remote zone of reporting Region A.

While the problem of ascertainment of Aboriginal and Torres Strait Islander status for injury mortality is probably broadly similar to that for other causes of death, there are some special considerations. As noted in Chapter 2, deaths from injury and poisoning tend to be sudden and unexpected, and they are normally reported to police and referred to a coroner for investigation and certification. Of all deaths recorded as being of an Aboriginal or Torres Strait Islander person, about one in three is certified by a coroner. In contrast, about one in seven of other deaths is certified by a coroner (based on registrations in 2000). The circumstances of injury deaths and the special administrative systems following them might result in ascertainment that differs from that for other types of deaths. Evidence on the relative quality of Aboriginal and Torres Strait Islander ascertainment for deaths certified by coroners is lacking, though there is some evidence of under-ascertainment (Clayer & Czechowicz 1991). Furthermore, ascertainment might differ among types of deaths referred certified to coroners, for reasons such as the special scrutiny given to certain injury deaths (e.g. homicides), and by place (e.g. ascertainment might differ between cases in remote areas and cases in major cities).

Some types of injury death, notably suicide, might sometimes be misclassified because of social stigma attached to this cause of death, in which case a less judgemental classification may be used (Steenkamp 2000; Tatz 1999). We are not aware of evidence of the frequency of this, nor whether it is more or less common among Aboriginal and Torres Strait Islander cases.

The validity and reliability of Aboriginal and Torres Strait Islander population estimates is also problematic. Change between Censuses in propensity to self-identify as Aboriginal and Torres Strait Islander significantly affect the interpretability of counts derived from successive Censuses, and is a reason to prefer the experimental population projections produced by the ABS on the basis of Census data and other information (Steenkamp 2000). Values from the low series ABS population projections were used as denominators for calculating rates in section 3.2 of this report. We could not use this source to provide denominators for sections 3.3 and 3.4 because values were not available by remoteness zone. For these sections we used usual residence data from the 2001 Census (see Appendix B Tables 2.2–2.13).

Considerable efforts have been made in recent years to improve the quality of the data sources needed to measure and monitor the health of Aboriginal and Torres Strait Islander peoples. The fourth edition of 'The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples' (ABS 2003) reports that in 2003, the jurisdictions referred to as Region A in this report have consistently attained coverage criteria for Aboriginal and Torres Strait Islander ascertainment in mortality data. Coverage is estimated by comparing actual recorded deaths with expected deaths, using experimental life tables (ABS 2003). Another recent publication on mortality (AIHW 2003) also supports this grouping of jurisdictions, particularly in the context of the data years used in this report.

While these improvements are welcome, they have not yet resolved the data quality problems sufficiently to enable reliable reporting of topics such as injury mortality. Indeed, the efforts to improve data quality can, in the short term, complicate reporting: an increasing number of deaths from some condition recorded as Aboriginal and Torres Strait Islander might be due to increasing mortality, or to better case-recognition, or both.

Improvement based on the care and effort exerted in collecting data for routine sources (Census, deaths data collection, etc.) will be inherently limited while the data systems are structured in a manner that does not enable account to be taken of variation, over time or between sources, of which individuals identify as being Aboriginal or Torres Strait Islander.

While ascertainment of Aboriginal and Torres Strait Islander status was the main data issue for this project, some others warrant mention.

We have reported injury deaths in terms of place of usual residence. This is consistent with the use of Estimated Resident Populations as denominators for rates. However, this approach does not fit well with some classes of injury deaths.

Deaths of persons while travelling interstate will not be recorded in the jurisdiction in which the death occurred, but from where they 'usually live'. Similarly, a person may be fatally injured while in a remoteness zone other than the one in which he or she usually resides.

The importance of this depends on the purpose of analysis. For example, place of usual residence provides some insight into social circumstances, while place at which

injury was sustained may provide insight into environmental risk factors. Denominators suitable for use in terms of place of injury tend to be difficult to obtain. In the study period, 1997–2000, the proportion of injury deaths for which state or territory of death registration differed from state or territory of usual residence was 3.4% for Aboriginal and Torres Strait Islander cases, and the same for the rest of the population.

The proportion of such cases varies over time (e.g. reflecting seasonal patterns of recreation and some types of work), between External causes (e.g. transport-related fatal injury is particularly likely to occur while away from home) and places (e.g. where a large population straddles the boundary of a reporting area). While there might be differences in such patterns between Aboriginal and Torres Strait Islander and other groups, case numbers are too low to allow meaningful analysis.

Consistent application of a usual residence based approach requires exclusion of deaths in Australia of persons usually resident elsewhere, and inclusion of deaths outside Australia of persons usually resident in Australia. We did the former (based on place of usual residence as recorded in the deaths data), but suitable information on Australians who died elsewhere due to injury was not available. This would not have a material effect on this report unless Aboriginal and Torres Strait Islander Australians were over-represented among overseas injury deaths.

Finally, the completeness and reliability of ascertainment of injury deaths in Australia has generally been regarded as good, though formal studies have not been reported. A likely exception is euthanasia and related causes of death, which are known to occur, but are not normally recorded as such in mortality statistics (Kuhse et al. 1997). The National Coroners Information System is an innovation that is enabling more detailed analysis and validation of the majority of injury deaths, which are brought to the attention of a coroner (Driscoll et al. 2003). The main group of recognised injury deaths known to be outside the scope of the coronial system is deaths by older persons following a fall, an uncommon cause of death for Aboriginal and Torres Strait Islander persons.

4.3 Conclusions

This technical report of data concerning injury mortality of Aboriginal and Torres Strait Islander Australians confirms previous findings of high rates. It provides indicative evidence on patterns of mortality by age, sex, remoteness and type of External cause of injury.

Interpretation of findings is complicated by imperfect ascertainment of Aboriginal and Torres Strait Islander status, particularly in the part of Australia that we have designated Region B. Estimates of rates are particularly susceptible to poor or variable ascertainment. Hence, it is not clear whether the generally lower rates of measured Aboriginal and Torres Strait Islander injury mortality in Region B are due to lower incidence, poorer ascertainment, or a combination of both factors. A striking exception to this general pattern is the high rate of Aboriginal and Torres Strait Islander drug deaths in the Major Cities remoteness zone of Region B. This is likely to reflect high rates rather than to be (solely) a consequence of poor case ascertainment. However, if ascertainment of Aboriginal and Torres Strait Islander status was substantially more complete for drug deaths than for deaths from other External causes, the relative prominence of this cause of death could be overstated.

Age-specific patterns of rates (as distinct from the absolute values of the rates) will only be affected by poor ascertainment if the extent of under-ascertainment varies substantially with age. For certain External causes (notably drug deaths and falls), patterns of age-specific rates were similar for Aboriginal and Torres Strait Islander persons in regions A and B. However, patterns for other External causes (transport, suicide) differ considerably between Aboriginal and Torres Strait Islander persons in Region A and Region B. This could be explained by cause-specific differences in ascertainment between the two regions. However, we think that it is more likely that the differences reflect, at least in part, differences in case incidence.

Further work is required to enable reliable rate estimates of Aboriginal and Torres Strait Islander injury mortality, for Australia as a whole, and for regions and remoteness zones. An important aim is to achieve estimates which are sufficiently reliable to enable meaningful monitoring of trends over time. The data reported here are sufficient to confirm that Aboriginal and Torres Strait Islander Australians experience much higher injury mortality rates than the population as a whole, and provide some insight into patterns of occurrence that can inform injury prevention.

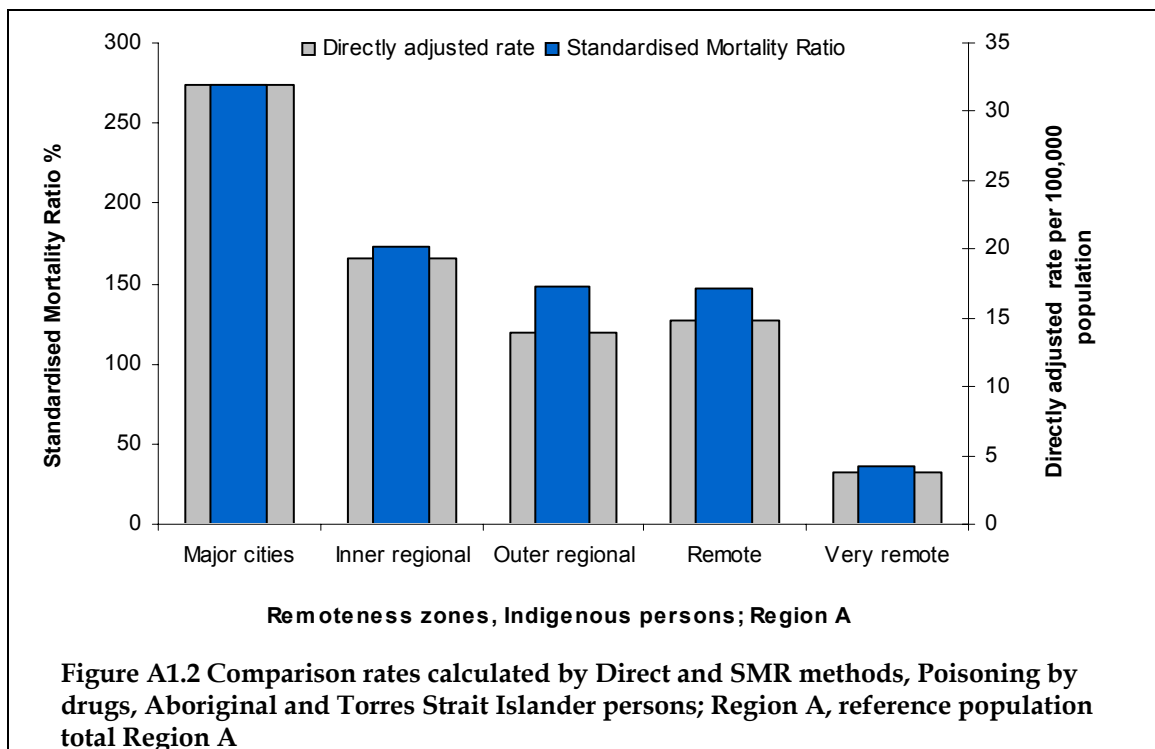
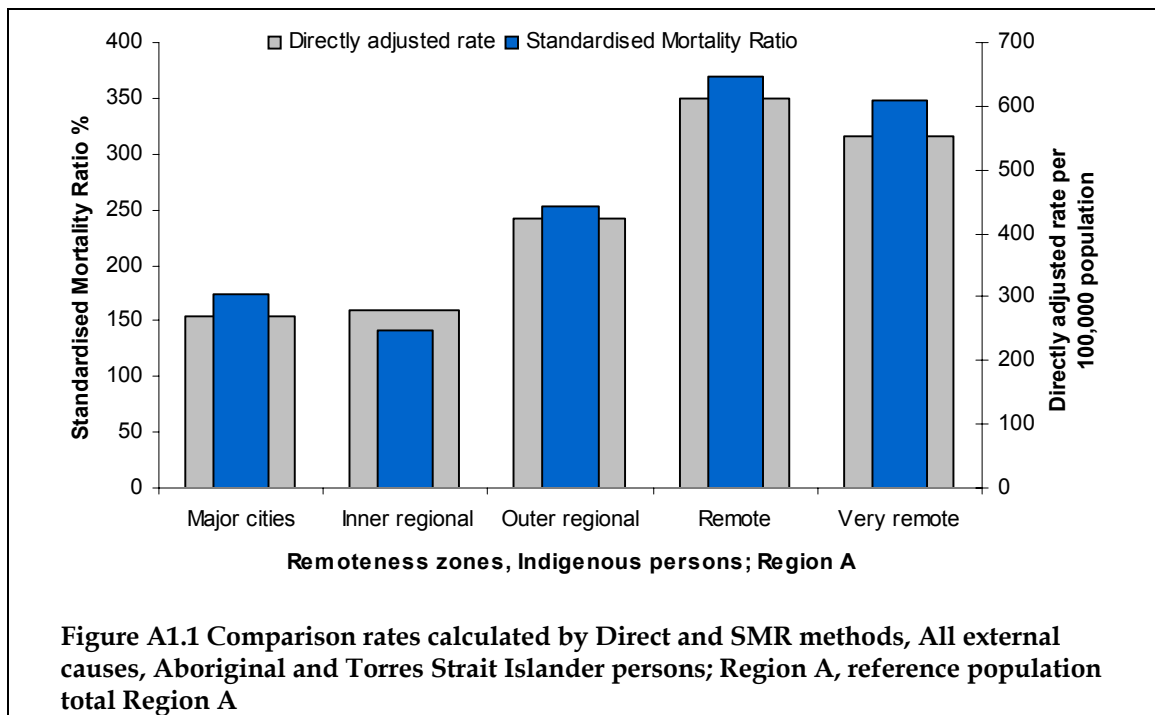
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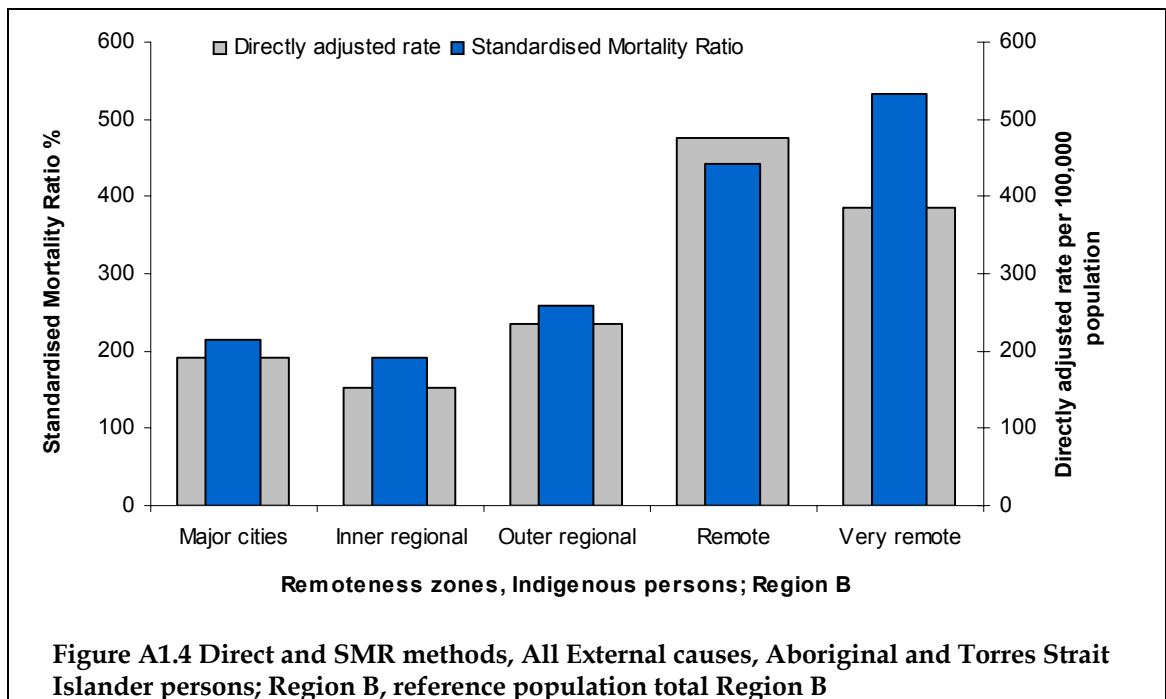
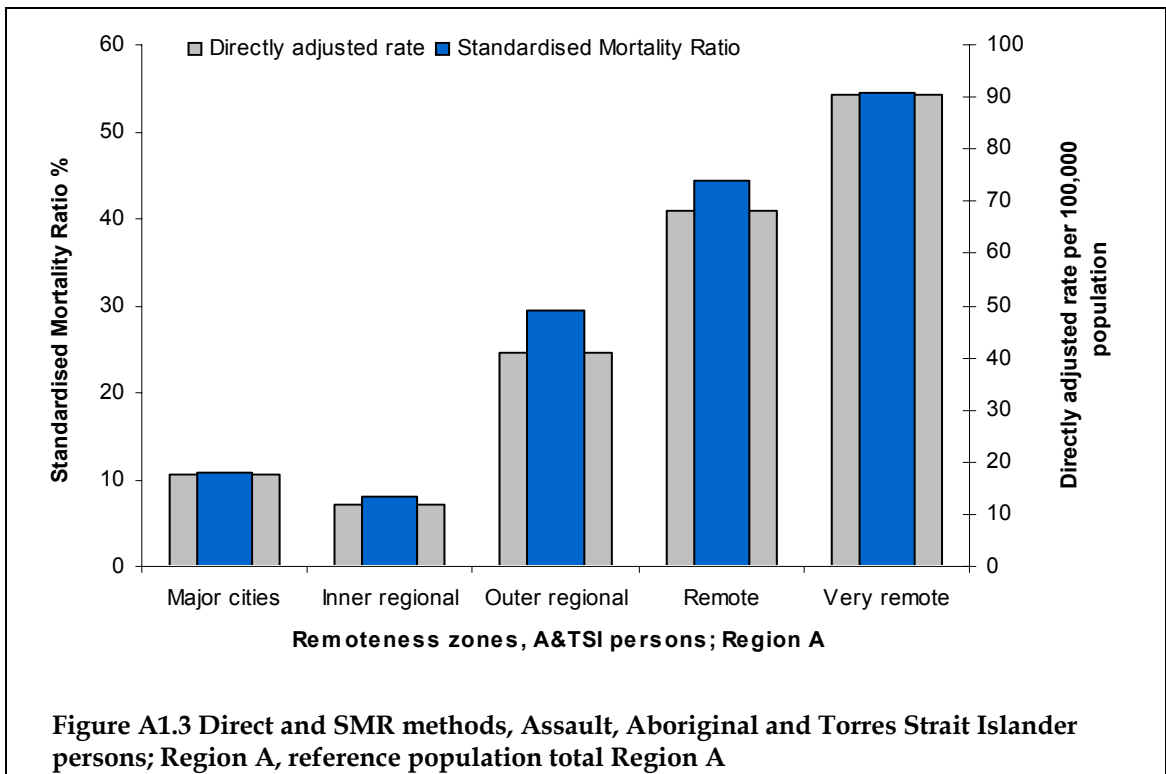
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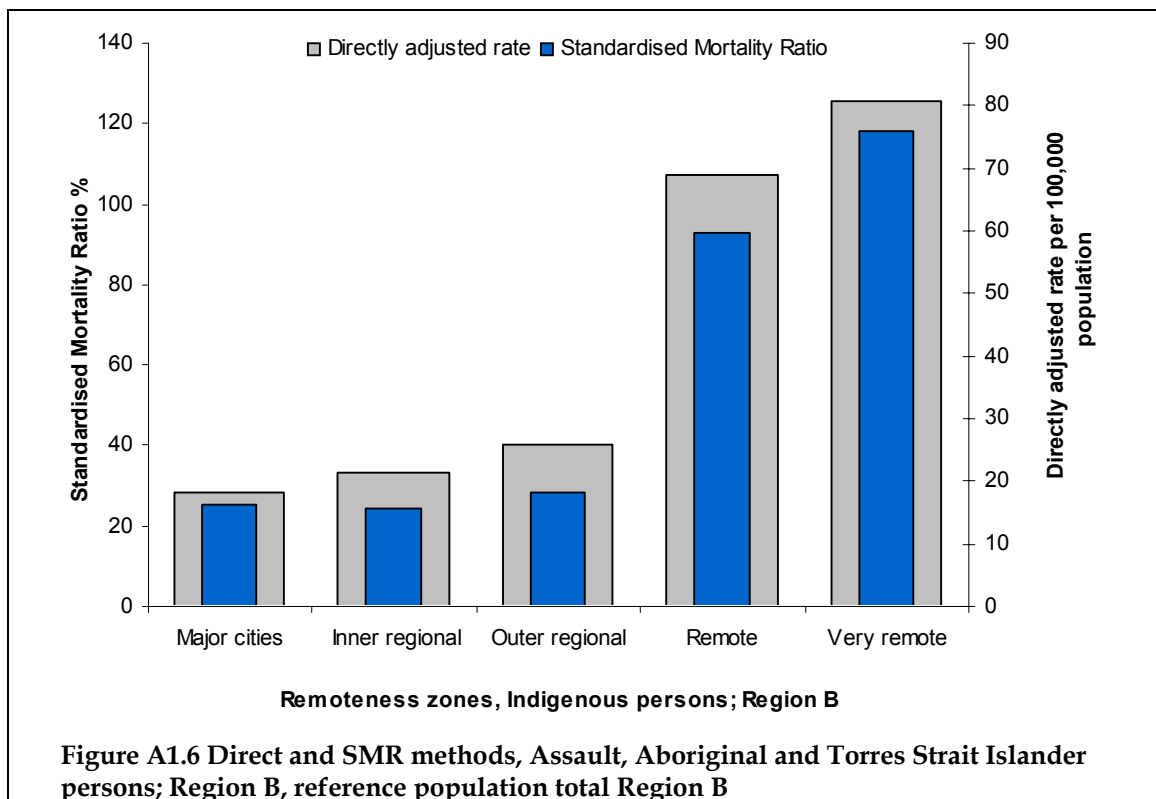
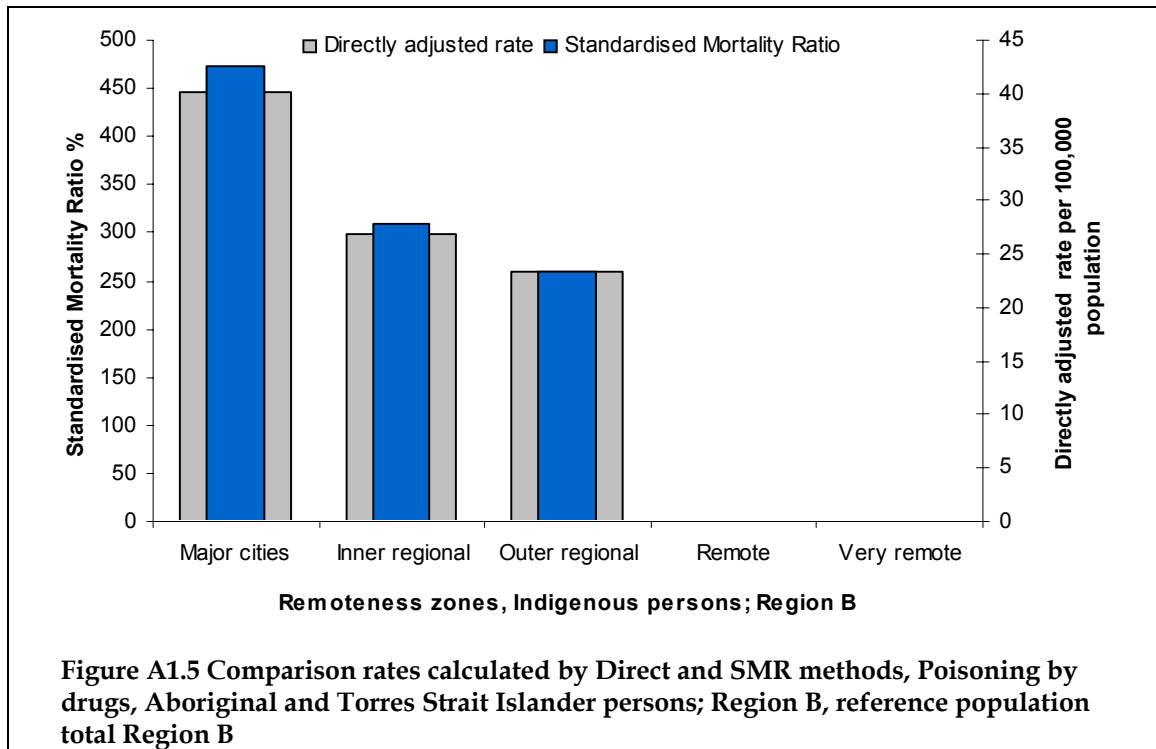
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Appendix A







Appendix B

Table B2.1 Projected population estimates for Aboriginal and Torres Strait Islander persons by gender: regions and Australia; 1997–00

Jurisdiction	1997			1998			1999			2000		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
New South Wales	55,232	56,935	112,167	56,360	58,051	114,411	57,484	59,168	116,652	58,613	60,282	118,895
Victoria	11,397	11,605	23,002	11,631	11,772	23,403	11,868	11,933	23,801	12,096	12,099	24,195
Queensland	52,866	54,692	107,558	54,219	56,105	110,324	55,581	57,530	113,111	56,957	58,962	115,919
South Australia	11,004	11,499	22,503	11,204	11,749	22,953	11,397	12,008	23,405	11,591	12,266	23,857
Western Australia	28,319	28,944	57,263	28,842	29,479	58,321	29,370	30,012	59,382	29,901	30,540	60,441
Tasmania	7,747	7,834	15,581	7,874	7,967	15,841	8,006	8,100	16,106	8,131	8,242	16,373
Northern Territory	26,335	26,447	52,782	26,841	26,846	53,687	27,342	27,245	54,587	27,837	27,643	55,480
Australian Capital Territory	1,559	1,602	3,161	1,600	1,666	3,266	1,646	1,726	3,372	1,697	1,783	3,480
Australia	194,568	199,646	394,214	198,680	203,724	402,404	202,803	207,812	410,615	206,933	211,908	418,841

Note: taken from Experimental Projections of the Aboriginal and Torres Strait Islander Population 30 June 1996–30 June 2006, low series (ABS 1998).

Table B2.2 Population data by remoteness zones for Aboriginal and Torres Strait Islander males, Australia 2001 Census: counts and age groups, Region A

Remoteness zone	0-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+		Total
	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts		
Major cities	3,883	4,262	3,702	3,174	2,319	2,198	2,080	1,739	1,455	1,142	861	496	320	216	122	145	28,114																
Inner regional	1,859	2,123	1,967	1,407	1,024	965	897	814	694	521	390	257	196	131	65	63	13,373																
Outer regional	4,028	4,348	4,105	3,039	2,228	2,232	2,069	1,805	1,615	1,203	923	572	420	302	181	207	29,277																
Remote	1,807	1,973	1,882	1,357	1,113	1,157	1,145	1,033	848	633	516	354	219	160	119	151	14,467																
Very remote	4,257	4,578	4,097	3,581	3,291	3,083	2,705	2,303	1,844	1,563	1,170	789	603	435	296	374	34,989																
Migratory	3	3	3	3	16	16	7	11	8	7	6	0	0	0	3	8	94																
Total	15,837	17,287	15,756	12,561	9,991	9,651	8,903	7,705	6,464	5,069	3,866	2,468	1,758	1,244	786	948	120,294																

Table B2.3 Population data by remoteness zones for Aboriginal and Torres Strait Islander females, Australia 2001 Census: counts and age groups, Region A

Remoteness zone	0-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+		Total
	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts		
Major cities	1,891	2,004	1,779	1,439	1,035	1,107	1,076	943	762	550	439	281	212	132	85	101	13,836																
Inner regional	3,938	3,949	3,649	3,162	2,584	2,545	2,473	2,085	1,708	1,426	995	636	480	294	204	262	30,390																
Outer regional	3,813	4,084	3,890	3,131	2,513	2,631	2,607	2,187	1,752	1,471	1,095	717	557	373	253	292	31,366																
Remote	1,759	1,889	1,658	1,403	1,181	1,234	1,266	1,123	950	685	546	366	276	178	121	189	14,824																
Very remote	4,123	4,344	3,753	3,453	3,258	3,120	2,727	2,463	1,868	1,512	1,144	810	733	533	357	524	34,722																
Migratory	9	0	0	3	8	3	6	3	0	3	0	3	0	3	3	4	48																
Total	15,533	16,270	14,729	12,591	10,579	10,640	10,155	8,804	7,040	5,647	4,219	2,813	2,258	1,513	1,023	1,372	125,186																

Note: Tables B2.2-B2.13 are based on a table supplied by the ABS on 28 January 2003: 2001 Census of Population and Housing: Age group by Remoteness Areas by Indigenous Status and Sex (usual residence).

Table B2.4 Population data by remoteness zones for Aboriginal and Torres Strait Islander persons, Australia 2001 Census: counts and age groups, Region A

Remoteness zone	0-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+		Total Counts
	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts		
Major cities	7,821	8,211	7,351	6,336	4,903	4,743	4,553	3,824	3,163	2,568	1,856	1,132	800	510	326	407	58,504																
Inner regional	3,750	4,127	3,746	2,846	2,059	2,072	1,973	1,757	1,456	1,071	829	538	408	263	150	164	27,209																
Outer regional	7,841	8,432	7,995	6,170	4,741	4,863	4,676	3,992	3,367	2,674	2,018	1,289	977	675	434	499	60,643																
Remote	3,566	3,862	3,540	2,760	2,294	2,391	2,411	2,156	1,798	1,318	1,062	720	495	338	240	340	29,291																
Very remote	8,380	8,922	7,850	7,034	6,549	6,203	5,432	4,766	3,712	3,075	2,314	1,599	1,336	968	653	898	69,691																
Migratory	12	3	3	6	24	19	13	14	8	10	6	3	0	3	6	12	142																
Total	31,370	33,557	30,485	25,152	20,570	20,291	19,058	16,509	13,504	10,716	8,085	5,281	4,016	2,757	1,809	2,320	245,480																

Note: Tables B2.2-B2.13 are based on a table supplied by the ABS on 28 January 2003: 2001 Census of Population and Housing: Age group by Remoteness Areas by Indigenous Status and Sex (usual residence).

Table B2.5 Population data by remoteness zones for other Australian males, Australia 2001 Census: counts and age groups, Region A

Remoteness zone	0-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+		Total Counts
	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts			
Major cities	132,458	141,531	143,621	154,730	149,910	147,701	151,394	150,496	150,588	141,985	139,255	105,872	81,690	65,821	61,235	95,685	2,013,972																
Inner regional	43,188	49,537	52,165	46,757	33,214	34,625	39,572	44,816	48,648	45,453	43,996	36,828	31,496	27,265	24,486	33,539	635,585																
Outer regional	36,743	39,708	39,451	35,762	31,267	35,136	38,652	40,662	41,612	38,973	37,575	30,324	25,724	20,253	16,776	21,299	529,917																
Remote	9,537	9,807	9,075	7,130	7,739	10,006	11,080	11,578	11,579	10,253	10,047	8,127	6,730	5,121	3,977	4,129	135,915																
Very remote	3,641	3,484	2,956	3,094	4,613	6,170	6,379	6,305	6,096	5,677	5,375	4,733	4,134	3,083	2,051	1,673	69,484																
Migratory	49	54	56	144	513	579	547	507	380	340	338	265	188	142	110	276	4,488																
Total	225,616	244,121	247,324	247,617	227,256	234,217	247,624	254,364	258,903	242,681	236,586	186,149	149,962	121,685	108,635	156,601	3,389,341																

Table B2.6 Population data by remoteness zones for other Australian females, Australia 2001 Census: counts and age groups, Region A

Remoteness zone	0-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+		Total	
	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts			
Major cities	126,099	134,126	136,563	151,197	149,485	150,408	157,956	159,592	162,210	152,678	144,235	105,781	84,092	71,862	72,408	154,527	2,113,219																	
Inner regional	41,089	47,171	49,175	44,894	32,373	36,830	43,905	49,752	51,831	46,677	43,926	36,781	31,687	27,157	24,996	45,463	653,707																	
Outer regional	34,980	37,331	36,990	32,342	29,163	35,019	38,641	40,670	40,685	36,767	34,208	27,903	23,068	18,022	16,043	28,540	510,372																	
Remote	8,746	9,273	8,289	5,900	6,360	9,020	9,794	9,874	9,424	8,283	7,970	6,741	5,435	4,139	3,088	4,615	116,951																	
Very remote	3,258	3,324	2,602	1,950	3,113	4,124	4,189	3,880	3,609	3,477	3,924	3,693	3,024	2,069	1,329	1,426	48,991																	
Migratory	23	15	21	51	132	123	67	68	53	80	98	104	131	102	78	97	1,243																	
Total	214,195	231,240	233,640	236,334	220,626	235,524	254,552	263,836	267,812	247,962	234,361	181,003	147,437	123,351	117,942	234,668	3,444,483																	

Note: Tables B2.2-B2.13 are based on a table supplied by the ABS on 28 January 2003: 2001 Census of Population and Housing: Age group by Remoteness Areas by Indigenous Status and Sex (usual residence)

Table B2.7 Population data by remoteness zones for other Australian persons, Australia 2001 Census: counts and age groups, Region A

Remoteness zone	0-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+		Total	
	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts			
Major cities	258,557	275,657	280,184	305,927	299,395	298,109	309,350	310,088	312,798	294,663	283,490	211,653	165,782	137,683	133,643	250,212	4,127,191																	
Inner regional	84,277	96,708	101,340	91,651	65,587	71,455	83,477	94,568	100,479	92,130	87,922	73,609	63,183	54,422	49,482	79,002	1,289,292																	
Outer regional	71,723	77,039	76,441	68,104	60,430	70,155	77,293	81,332	82,297	75,740	71,783	58,227	48,792	38,275	32,819	49,839	1,040,289																	
Remote	18,283	19,080	17,364	13,030	14,099	19,026	20,874	21,452	21,003	18,536	18,017	14,868	12,165	9,260	7,065	8,744	252,866																	
Very remote	6,899	6,808	5,558	5,044	7,726	10,294	10,568	10,185	9,705	9,154	9,299	8,426	7,158	5,152	3,380	3,099	118,455																	
Migratory	72	69	77	195	645	702	614	575	433	420	436	369	319	244	188	373	5,731																	
Total	439,811	475,361	480,964	483,951	447,882	469,741	502,176	518,200	526,715	490,643	470,947	367,152	297,399	245,036	226,577	391,269	6,833,824																	

Note: Tables B2.2-B2.13 are based on a table supplied by the ABS on 28 January 2003: 2001 Census of Population and Housing: Age group by Remoteness Areas by Indigenous Status and Sex (usual residence).

Table B2.8 Population data by remoteness zones for Aboriginal and Torres Strait Islander males, Australia 2001 Census: counts and age groups, Region B

Remoteness zone	0-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+		Total
	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts		
Major cities	4,232	4,573	4,123	3,452	2,798	2,676	2,422	2,002	1,817	1,501	1,103	749	527	365	183	222	32,745																
Inner regional	3,896	4,045	3,862	3,049	2,095	1,891	1,840	1,691	1,581	1,248	946	631	422	293	177	164	27,831																
Outer regional	2,252	2,589	2,399	1,783	1,084	1,014	1,029	1,061	981	790	628	505	346	227	105	130	16,923																
Remote	389	425	340	268	205	206	189	213	171	139	131	84	69	43	19	19	2,910																
Very remote	121	171	136	101	74	85	100	87	52	64	58	35	22	15	12	11	1,144																
Migratory	3	0	0	0	5	7	4	3	3	3	0	0	3	0	0	0	31																
Total	10,893	11,803	10,860	8,653	6,261	5,879	5,584	5,057	4,605	3,745	2,866	2,004	1,389	943	496	546	81,584																

Table B2.9 Population data by remoteness zones for Aboriginal and Torres Strait Islander females, Australia 2001 Census: counts and age groups, Region B

Remoteness zone	0-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+		Total
	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts			
Major cities	4,113	4,343	3,898	3,462	2,736	2,880	2,765	2,400	2,048	1,611	1,253	758	548	380	291	357	33,843																
Inner regional	3,753	3,844	3,685	2,984	1,925	2,041	1,990	1,892	1,628	1,265	966	656	482	331	248	272	27,962																
Outer regional	2,246	2,363	2,193	1,664	1,182	1,157	1,310	1,199	1,039	763	599	444	337	235	129	176	17,036																
Remote	345	396	326	253	196	205	234	197	181	128	120	63	76	50	31	23	2,824																
Very remote	115	158	117	59	78	88	87	72	60	52	38	41	20	15	13	16	1,029																
Migratory	0	0	0	0	0	6	0	0	0	3	0	0	0	3	0	3	15																
Total	10,572	11,104	10,219	8,422	6,117	6,377	6,386	5,760	4,956	3,822	2,976	1,962	1,463	1,014	712	847	82,709																

Note: Tables B2.2-B2.13 are based on a table supplied by the ABS on 28 January 2003: 2001 Census of Population and Housing: Age group by Remoteness Areas by Indigenous Status and Sex (usual residence).

Table B2.10 Population data by remoteness zones for Aboriginal and Torres Strait Islander persons, Australia 2001 Census: counts and age groups, Region B

Remoteness zone	0-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+		Total Counts
	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts		
Major cities	8,345	8,916	8,021	6,914	5,534	5,556	5,187	4,402	3,865	3,112	2,356	1,507	1,075	745	474	579	66,588																
Inner regional	7,649	7,889	7,547	6,033	4,020	3,932	3,830	3,583	3,209	2,513	1,912	1,287	904	624	425	436	55,793																
Outer regional	4,498	4,952	4,592	3,447	2,266	2,171	2,339	2,260	2,020	1,553	1,227	949	683	462	234	306	33,959																
Remote	734	821	666	521	401	411	423	410	352	267	251	147	145	93	50	42	5,734																
Very remote	236	329	253	160	152	173	187	159	112	116	96	76	42	30	25	27	2,173																
Migratory	3	0	0	0	5	13	4	3	3	6	0	0	3	3	0	3	46																
Total	21,465	22,907	21,079	17,075	12,378	12,256	11,970	10,817	9,561	7,567	5,842	3,966	2,852	1,957	1,208	1,393	164,293																

Note: Tables B2.2-B2.13 are based on a table supplied by the ABS on 28 January 2003: 2001 Census of Population and Housing: Age group by Remoteness Areas by Indigenous Status and Sex (usual residence).

Table B2.11 Population data by remoteness zones for other Australian males, Australia 2001 Census: counts and age groups, Region B

Remoteness zone	0-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+		Total Counts
	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts		
Major cities	272,108	280,535	275,681	284,313	294,090	310,965	320,284	317,508	304,900	275,614	261,219	202,578	158,402	129,053	117,978	178,849	3,984,077																
Inner regional	83,791	95,516	100,233	93,862	69,560	68,877	77,117	85,994	94,464	90,397	85,897	68,476	57,429	48,291	45,625	65,606	1,231,135																
Outer regional	27,756	32,276	34,148	28,689	19,497	21,761	25,308	29,776	33,393	31,586	31,147	26,110	23,693	20,068	17,873	23,338	426,419																
Remote	1,685	1,794	1,546	1,271	1,266	1,546	1,778	1,896	2,064	1,936	1,885	1,688	1,456	1,265	994	1,013	25,083																
Very remote	286	307	254	210	271	333	346	377	367	413	392	377	329	221	184	201	4,868																
Migratory	31	27	67	65	302	285	268	249	208	187	175	133	95	59	40	94	2,285																
Total	385,657	410,455	411,929	408,410	384,986	403,767	425,101	435,800	435,396	400,133	380,715	299,362	241,404	198,957	182,694	269,101	5,673,867																

Table B2.12 Population data by remoteness zones for other Australian females, Australia 2001 Census: counts and age groups, Region B

Remoteness zone	0-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+		Total
	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts		
Major cities	258,152	266,043	262,489	274,876	291,027	319,558	335,105	325,020	316,655	287,432	267,530	200,609	161,701	140,609	138,882	291,285	4,136,973																
Inner regional	79,040	90,691	95,396	89,192	65,440	69,905	82,344	92,606	99,465	91,596	84,490	67,788	57,931	51,374	49,940	101,463	1,268,661																
Outer regional	26,342	30,695	32,111	25,243	17,375	21,670	26,294	30,485	33,113	29,653	28,802	24,815	22,118	18,706	17,483	32,280	417,185																
Remote	1,612	1,690	1,558	1,019	976	1,278	1,626	1,601	1,651	1,524	1,520	1,367	1,198	951	822	1,318	21,711																
Very remote	285	244	246	160	193	254	283	300	311	296	316	231	246	163	127	209	3,864																
Migratory	14	15	54	53	113	76	56	49	36	40	48	35	49	33	23	47	741																
Total	365,445	389,378	391,854	390,543	375,124	412,741	445,708	450,061	451,231	410,541	382,706	294,845	243,243	211,836	207,277	426,602	5,849,135																

Note: Tables B2.2-B2.13 are based on a table supplied by the ABS on 28 January 2003: 2001 Census of Population and Housing: Age group by Remoteness Areas by Indigenous Status and Sex (usual residence).

Table B2.13 Population data by remoteness zones for other Australian persons, Australia 2001 Census: counts and age groups, Region B

Remoteness zone	0-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+		Total	
	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts			
Major cities	530,260	546,578	538,170	559,189	585,117	630,523	655,389	642,528	621,555	563,046	528,749	403,187	320,103	269,662	256,860	470,134	8,121,050																	
Inner regional	162,831	186,207	195,629	183,054	135,000	138,782	159,461	178,600	193,929	181,993	170,387	136,264	115,360	99,665	95,565	167,069	2,499,796																	
Outer regional	54,098	62,971	66,259	53,932	36,872	43,431	51,602	60,261	66,506	61,239	59,949	50,925	45,811	38,774	35,356	55,618	843,604																	
Remote	3,297	3,484	3,104	2,290	2,242	2,824	3,404	3,497	3,715	3,460	3,405	3,055	2,654	2,216	1,816	2,331	46,794																	
Very remote	571	551	500	370	464	587	629	677	678	709	708	608	575	384	311	410	8,732																	
Migratory	45	42	121	118	415	361	324	298	244	227	223	168	144	92	63	141	3,026																	
Total	751,102	799,833	803,783	798,953	760,110	816,508	870,809	885,861	886,627	810,674	763,421	594,207	484,647	410,793	389,971	695,703	11,523,002																	

Note: Tables B2.2-B2.13 are based on a table supplied by the ABS on 28 January 2003: 2001 Census of Population and Housing: Age group by Remoteness Areas by Indigenous Status and Sex (usual residence)

Table B2.14 Deaths recorded as being Aboriginal and Torres Strait Islander persons, Australia 1997–00: case counts and rates; selected External causes and age groups

External Cause of Injury	0–4		5–9		10–14		15–19		20–24		25–29		30–34		35–39		40–44		45–49		50–54		55–59		60–64		65–69		70–74		75+		Total		
	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	
Transport accidents	19	8.4	12	5.5	48	6.1	28.5	33.8	49	33.8	28.2	26.1	37.8	23.2	30.2	24.4	26.4	33.3	8.1	33.3	0.0	0.0	2	6	2	6	0	0	0	0	3	324	22.3		
Poisoning—drugs	0	0.0	2	0.9	1	0.5	4.2	6.2	9	23	16.2	19.6	11.3	9.3	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90	6.0
Suicide	0	0.0	1	0.5	8	3.7	63	72	68	47.9	37.5	31.2	19.7	15.1	10.2	11.7	8.1	11.1	2	2	0	0	2	2	0	0	0	0	0	0	0	0	0	331	21.6
Fatal Assault	8	3.5	0	0.0	4	2.0	8.9	11.0	16	19.0	22.0	18.0	16.2	22.7	10.2	11.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1	155	10.7	
Falls	1	0.4	1	0.5	2	1.0	0.0	1.4	2	1.4	2.9	2.4	3.8	5.8	4.5	2.0	5.9	0.0	16.7	3	6	0	3	0	3	6	11	46	5.1						

Rates (shaded) are age adjusted annual averages over the four years 1997–2000. Total rates are directly standardised all ages rates.

Table B2.15 Deaths recorded as being Aboriginal and Torres Strait Islander males, Australia 1997–00: case counts and rates; selected External causes and age groups

External Cause of Injury	0–4		5–9		10–14		15–19		20–24		25–29		30–34		35–39		40–44		45–49		50–54		55–59		60–64		65–69		70–74		75+		Total		
	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	
Transport accidents	8	6.9	8	7.2	5	5.0	46.8	47.0	34	37.9	26	25	24	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	224	33.3
Poisoning—drugs	0	0.0	1	0.9	1	0.5	5.8	12.5	9	24.8	17	18	8	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66	9.0
Suicide	0	0.0	1	0.9	4	5.6	56.1	85.8	62	87.4	60	42	25	14	10	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	276	37.1
Fatal Assault	5	4.3	0	0.0	2	9.4	12.5	24.8	9	24.8	17	13	9	9	10	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	89	13.0
Falls	0	0.0	1	0.9	2	2.0	0	1.4	2	2.9	3	3	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27	7.1

Rates (shaded) are age adjusted annual averages over the four years 1997–2000. Total rates are directly standardised all ages rates.

Table B2.16 Deaths recorded as being Aboriginal and Torres Strait Islander females, Australia 1997–00: case counts and rates; selected External causes and age groups

External Cause of Injury	0–4		5–9		10–14		15–19		20–24		25–29		30–34		35–39		40–44		45–49		50–54		55–59		60–64		65–69		70–74		75+		Total			
	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates		
Transport accidents	11	4.7	4	7.8	7	15.1	14	16.4	7	16.4	4	4.4	4	4.4	8	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	2.0	100	12.2		
Poisoning—drugs	0	0.0	1	2.4	0	0.0	6	6.7	6	6.7	3	3.3	4	4.4	0	0.0	0	0.0	2	2.2	5.7	6.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	24	3.2
Suicide	0	0.0	4	15.1	10	10.9	8	8.8	4	4.4	3	3.3	8	8.8	1	1.1	0	0.0	1	1.1	0	0.0	1	1.1	1	1.1	10.0	10.0	0	0.0	0	0.0	0	0.0	55	7.0
Fatal Assault	3	0.0	2	7.7	7	10.9	10	14.3	14	19.9	5	5.5	10	14.3	1	1.1	5	5.5	5	5.5	0.0	0.0	1	1.1	1	1.1	7.5	7.5	0	0.0	0	0.0	1	1.1	66	8.6
Falls	1	0.0	0	0.0	1	1.1	0	0.0	0	0.0	3	3.3	0	0.0	2	2.2	1	1.1	2	2.2	14.4	14.4	0	0.0	0	0.0	0	0.0	0	0.0	2	2.0	19	19.0	3.5	

Rates (shaded) are age adjusted annual averages over the four years 1997–2000. Total rates are directly standardised all ages rates.

Table B2.17 Deaths recorded as being other Australian persons, Australia 1997–00: case counts and rates; selected External causes and age groups

External Cause of Injury	0–4		5–9		10–14		15–19		20–24		25–29		30–34		35–39		40–44		45–49		50–54		55–59		60–64		65–69		70–74		75+		Total	
	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates
Transport accidents	171	3.5	114	2.2	174	3.4	975	18.6	986	18.6	740	12.9	606	10.9	501	8.5	413	7.4	383	7.4	324	7.0	259	7.3	281	9.4	268	9.9	302	12.3	670	16.8	7,167	9.6
Poisoning—drugs	13	0.3	1	0.0	5	0.1	177	3.5	593	11.2	825	14.4	717	12.9	645	11.0	531	9.6	288	5.5	193	4.1	99	2.8	51	1.7	72	2.7	61	2.5	117	2.9	4,388	6.1
Suicide	0	0.0	0	0.0	38	0.8	497	9.7	1,035	19.5	1,271	22.2	1,170	21.1	1,167	19.9	1,054	15.3	795	15.3	732	15.7	471	13.2	380	12.8	362	13.4	334	13.6	595	14.9	9,901	13.2
Fatal Assault	98	2.0	45	0.9	24	0.5	120	2.3	166	3.1	245	4.3	196	3.5	201	3.4	150	2.7	139	2.7	113	2.4	72	2.0	67	2.3	48	1.8	50	2.0	61	1.5	1,795	2.5
Falls	12	0.2	8	0.2	7	0.1	16	0.3	46	0.9	47	0.8	45	0.8	44	0.7	57	1.0	75	1.4	83	1.8	88	2.5	102	5.2	140	5.2	316	12.8	3,805	95.2	2.3	

Rates (shaded) are age adjusted annual averages over the four years 1997–2000. Total rates are directly standardised all ages rates.

Table B2.18 Deaths recorded as being other Australian males, Australia 1997–00: case counts and rates; selected External causes and age groups

External Cause of Injury	0–4		5–9		10–14		15–19		20–24		25–29		30–34		35–39		40–44		45–49		50–54		55–59		60–64		65–69		70–74		75+		Total	
	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates		
Transport accidents	99	3.9	65	2.5	114	4.4	731	27.8	764	28.3	594	20.6	475	17.2	376	12.8	310	11.2	279	10.7	221	9.3	175	6.6	171	6.3	176	6.5	166	6.1	386	14.5	5,102	13.8
Poisoning—drugs	7	0.3	1	0.0	1	0.0	103	3.9	454	16.8	668	23.2	570	20.6	497	17.0	332	12.0	174	6.7	112	4.7	28	1.5	23	1.5	31	2.3	32	2.8	52	3.4	3,085	8.7
Suicide	0	0.0	0	0.0	26	0.9	376	14.3	861	31.9	1,053	36.6	955	34.5	919	31.4	821	29.6	626	24.0	570	24.1	361	19.9	290	19.5	282	21.3	258	22.5	462	29.9	7,860	21.0
Fatal Assault	56	2.2	30	1.2	14	0.5	75	2.9	101	3.7	182	6.3	140	5.1	136	4.6	100	3.6	104	4.0	74	3.1	52	2.9	48	3.2	32	2.4	24	2.1	27	1.7	1,195	3.3
Falls	5	0.2	3	0.1	2	0.1	14	0.5	39	1.4	41	1.4	41	1.5	34	1.2	47	1.7	59	2.3	67	2.8	65	3.6	80	5.4	78	5.9	177	15.4	1,387	2.9	2,139	2.9

Rates (shaded) are age adjusted annual averages over the four years 1997–2000. Total rates are directly standardised all ages rates.

Table B2.19 Deaths recorded as being other Australian females, Australia 1997–00: case counts and rates; selected External causes and age groups

External Cause of Injury	0–4		5–9		10–14		15–19		20–24		25–29		30–34		35–39		40–44		45–49		50–54		55–59		60–64		65–69		70–74		75+		Total	
	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates		
Transport accidents	72	3.0	49	2.0	60	2.4	244	9.8	222	8.5	146	5.1	131	4.7	125	4.3	103	3.7	104	4.0	103	4.5	84	4.8	110	7.4	92	6.7	136	10.4	284	11.6	2,065	5.2
Poisoning—drugs	6	0.3	0	0.0	4	0.1	74	3.0	139	5.4	157	5.5	147	5.3	148	5.0	199	7.1	114	4.4	81	3.5	71	4.0	28	1.9	41	3.0	29	2.2	65	2.7	1,303	3.5
Suicide	0	0.0	0	0.0	12	0.4	121	4.9	174	6.7	218	7.6	215	7.7	248	8.4	233	8.4	169	6.5	162	7.1	110	6.3	90	6.1	80	5.8	76	5.8	133	10.6	2,041	5.4
Fatal Assault	42	1.8	15	0.6	10	0.4	45	1.8	65	2.5	63	2.2	56	2.0	65	2.2	50	1.8	35	1.4	39	1.7	20	1.1	19	1.3	16	1.2	26	2.0	34	1.4	600	1.6
Falls	7	0.3	5	0.2	5	0.2	2	0.1	7	0.3	6	0.2	4	0.1	10	0.3	10	0.4	16	0.6	16	0.7	23	1.3	22	1.5	62	4.5	139	10.6	2,418	1.8	2,752	1.8

Rates (shaded) are age adjusted annual averages over the four years 1997–2000. Total rates are directly standardised all ages rates.

Table B2.20 Deaths recorded as being Aboriginal and Torres Strait Islander males, Region A 1997–00: case counts and rates; selected External causes and age groups

External Cause of Injury	0–4		5–9		10–14		15–19		20–24		25–29		30–34		35–39		40–44		45–49		50–54		55–59		60–64		65–69		70–74		75+		Total					
	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts					
Transport accidents	7	10.1	5	7.3	5	8.3	28	54.1	26	57.3	20	46.5	22	59.9	20	65.8	13	52.3	12	65.4	3	21.7	8	84.5	2	29.6	4	82.7	0	0.0	0	0.0	1	28.7	176	43.2		
Poisoning—drugs	0	0.0	1	0.0	0	0.0	2	4.0	4	8.8	7	16.3	8	21.8	3	9.9	2	8.0	1	5.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	28	6.1
Suicide	0	0.0	1	1.5	4	4.1	41	79.2	56	123.3	48	111.7	34	92.6	17	55.9	12	48.3	7	38.2	3	21.7	2	21.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	225	47.3
Fatal Assault	3	4.3	0	0.0	1	1.7	7	13.5	6	13.2	12	27.9	6	16.3	6	19.7	6	24.1	8	43.6	3	21.7	3	31.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	61	15.0
Falls	0	0.0	1	1.5	1	1.7	0	0.0	1	2.2	2	4.7	3	8.2	1	3.3	2	8.0	2	5.5	1	7.2	2	21.1	0	0.0	1	20.7	1	70.4	2	86.0	3	21	7.8			

Rates (shaded) are age adjusted annual averages over the four years 1997–2000. Total rates are directly standardised all ages rates. Region A aggregates SA, NT, WA, Qld.

Table B2.21 Deaths recorded as being other Australian males, Region A 1997–00: case counts and rates; selected External causes and age groups

External Cause of Injury	0–4		5–9		10–14		15–19		20–24		25–29		30–34		35–39		40–44		45–49		50–54		55–59		60–64		65–69		70–74		75+		Total			
	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts			
Transport accidents	43	4.7	28	2.9	47	4.8	337	34.3	299	29.8	223	21.0	194	19.1	165	15.3	120	11.6	97	9.9	92	10.4	54	8.0	62	11.5	78	16.6	62	15.2	119	21.7	2,020	15.1		
Poisoning—drugs	2	0.2	0	0.0	0	0.0	21	2.1	85	8.5	124	11.7	107	10.6	97	9.0	60	5.8	33	3.4	28	3.2	3	0.4	6	1.1	7	1.5	6	1.5	6	1.5	13	2.4	592	4.5
Suicide	0	0.0	0	0.0	7	144	144	344	344	451	451	387	376	341	376	341	331	341	246	246	229	229	129	129	106	98	98	94	94	161	161	3,113	22.7			
Fatal Assault	13	1.4	7	0.7	3	0.3	13	1.3	26	2.6	42	4.0	27	2.7	39	3.6	18	1.7	20	2.0	19	2.1	13	1.9	10	1.9	6	1.3	5	1.2	9	1.6	270	2.0		
Falls	0	0.0	1	0.1	0	0.0	3	0.3	11	1.1	13	1.2	14	1.4	10	0.9	18	1.7	19	1.9	19	2.1	27	4.0	29	6.4	30	6.1	61	488	743	2.7				

Rates (shaded) are age adjusted annual averages over the four years 1997–2000. Total rates are directly standardised all ages rates. Region A aggregates SA, NT, WA, Qld.

Table B2.22 Deaths recorded as being Aboriginal and Torres Strait Islander females, Region A 1997-00: case counts and rates; selected External causes and age groups

External Cause of Injury	0-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+		Total					
	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates				
Transport accidents	8	4.0	4	6.2	6	10.2	5	9.8	13	28.4	10	21.9	4	10.0	15	44.8	1	3.7	4	19.3	6	39.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	20.9	77	15.3		
Poisoning—drugs	0	0.0	1	0.0	0	0.0	1	0.0	0	0.0	4	8.8	2	4.0	2	6.0	2	7.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	14	2.9
Suicide	0	0.0	0	0.0	4	6.8	13	25.5	8	17.5	7	15.4	3	7.5	6	17.9	2	7.4	0	0.0	1	6.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	44	8.3
Fatal Assault	3	0.0	2	3.4	6	11.8	6	11.8	6	13.1	9	19.7	11	27.6	8	23.9	5	18.5	4	19.3	1	6.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	20.9	56	11.7
Falls	1	0.0	0	0.0	0	0.0	0	0.0	1	2.2	0	0.0	0	0.0	2	6.0	0	0.0	2	9.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	51.6	7	146.6	15	4.3		

Rates (shaded) are age adjusted annual averages over the four years 1997-2000. Total rates are directly standardised all ages rates. Region A aggregates SA, NT, WA, Qld.

Table B2.23 Deaths recorded as being other Australian females, Region A 1997-00: case counts and rates; selected External causes and age groups

External Cause of Injury	0-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+		Total	
	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates
Transport accidents	27	3.1	14	2.7	25	11.8	110	8.4	80	8.4	65	6.3	45	4.0	43	4.4	45	4.4	41	4.3	35	4.2	32	5.0	33	6.3	30	6.2	49	10.8	100	11.8	774	5.5
Poisoning—drugs	3	0.3	0	0.0	0	0.0	17	2.4	23	2.6	27	2.9	22	3.1	31	4.1	42	4.1	16	1.7	11	1.3	11	1.7	6	1.1	10	2.1	4	0.9	13	1.5	236	1.8
Suicide	0	0.0	0	0.0	6	0.6	47	5.1	64	6.7	82	8.0	76	10.4	112	9.0	93	6.3	61	7.0	59	7.0	44	5.3	28	5.0	24	6.4	29	5.1	43	5.6	768	5.6
Fatal Assault	14	1.6	5	0.5	1	1.0	9	1.5	14	1.2	12	1.1	11	1.8	19	1.1	11	0.7	7	1.2	10	1.2	3	0.5	5	1.0	4	0.8	7	1.5	6	0.7	138	1.0
Falls	2	0.2	0	0.0	2	0.2	1	0.3	3	0.2	2	0.1	1	0.3	3	0.5	5	0.6	6	0.6	2	0.2	11	1.7	12	3.9	19	12.6	57	932	1,058	1.9		

Rates (shaded) are age adjusted annual averages over the four years 1997-2000. Total rates are directly standardised all ages rates. Region A aggregates SA, NT, WA, Qld.

Table B2.24 Deaths recorded as being Aboriginal and Torres Strait Islander males, Region B 1997–00: case counts and rates; selected External causes and age groups

External Cause of Injury	0–4		5–9		10–14		15–19		20–24		25–29		30–34		35–39		40–44		45–49		50–54		55–59		60–64		65–69		70–74		75+		Total	
	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates
Transport accidents	1	2.2	3	6.9	0	0.0	12	35.5	8	29.8	6	23.4	3	14.1	4	20.4	3	18.3	4	30.6	1	10.0	1	14.5	1	0.0	2	63.1	0	0.0	2	0.0	48	17.9
Poisoning—drugs	0	0.0	0	0.0	1	2.6	3	8.9	5	18.6	10	39.0	10	47.0	5	25.4	3	18.3	1	7.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	38	13.7
Suicide	0	0.0	0	0.0	0	0.0	7	20.7	6	22.3	12	46.8	8	37.6	8	40.7	2	12.2	3	22.9	1	10.0	2	29.1	1	31.6	1	31.6	0	0.0	0	0.0	51	20.3
Fatal Assault	2	4.3	0	0.0	1	2.6	1	3.0	3	11.2	5	19.5	7	32.9	3	15.3	3	18.3	2	15.3	1	10.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	28	10.2
Falls	0	0.0	0	0.0	1	2.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	12.2	0	0.0	0	0.0	0	0.0	0	0.0	1	31.6	2	110.9	0	0.0	6	5.8

Rates (shaded) are age adjusted annual averages over the four years 1997–2000. Total rates are directly standardised all ages rates. Region B aggregates NSW, Vic, Tas, ACT.

Table B2.25 Deaths recorded as being other Australian males, Region B 1997–00: case counts and rates; selected External causes and age groups

External Cause of Injury	0–4		5–9		10–14		15–19		20–24		25–29		30–34		35–39		40–44		45–49		50–54		55–59		60–64		65–69		70–74		75+		Total	
	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates	Counts	Rates
Transport accidents	56	3.5	37	2.2	67	4.1	394	24.0	465	27.4	371	20.4	281	16.0	211	11.4	190	10.9	182	11.2	129	8.7	121	10.6	109	11.4	98	11.4	104	14.0	267	26.8	3,082	13.1
Poisoning—drugs	5	0.3	1	0.1	1	0.1	82	5.0	369	21.7	544	30.0	463	26.4	400	21.6	272	15.6	141	8.7	84	5.7	25	2.2	17	2.8	24	3.5	26	3.9	39	3.9	2,493	11.2
Suicide	0	0.0	0	0.0	19	1.2	232	14.1	517	30.4	602	33.1	568	32.4	543	29.3	480	27.5	380	23.4	341	23.0	232	20.3	184	21.5	184	22.2	301	30.2	4,747	20.0		
Fatal Assault	43	2.7	23	1.4	11	0.7	62	3.8	75	4.4	140	7.7	113	6.4	97	5.2	82	4.7	84	5.2	55	3.7	39	3.4	38	4.0	26	1.8	19	1.8	18	1.8	925	4.1
Falls	5	0.3	2	0.1	2	0.1	11	0.7	28	1.6	28	1.5	27	1.5	24	1.3	29	1.7	40	2.5	48	3.2	38	3.3	51	5.6	48	15.7	899	90.3	1,396	3.0		

Rates (shaded) are age adjusted annual averages over the four years 1997–2000. Total rates are directly standardised all ages rates. Region B aggregates NSW, Vic, Tas, ACT.

Table B2.26 Deaths recorded as being Aboriginal and Torres Strait Islander females, Region B 1997-00: case counts and rates; selected External causes and age groups

External Cause of Injury	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	Total
	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts
Transport accidents	3	0	1	3	2	4	3	1	3	0	2	0	0	0	0	1	23
	6.8	0.0	2.7	9.3	7.4	14.4	12.2	4.5	16.6	0.0	20.2	0.0	0.0	0.0	0.0	33.2	7.3
Poisoning—drugs	0	0	0	1	0	2	2	2	1	2	0	0	0	0	0	0	10
	0.0	0.0	0.0	3.1	0.0	7.2	8.1	9.0	5.5	14.2	0.0	0.0	0.0	0.0	0.0	0.0	3.6
Suicide	0	0	0	2	2	1	1	2	1	0	0	0	1	1	0	0	11
	0.0	0.0	0.0	6.2	7.4	3.6	4.1	9.0	5.5	0.0	0.0	0.0	19.6	25.5	0.0	0.0	4.8
Fatal Assault	0	0	0	1	1	1	3	2	0	1	0	1	0	0	0	0	10
	0.0	0.0	0.0	3.1	3.7	3.6	12.2	9.0	0.0	7.1	0.0	13.8	0.0	0.0	0.0	0.0	3.7
Falls	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	1	4
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	5.5	0.0	0.0	0.0	0.0	25.5	0.0	33.2	2.1

Rates (shaded) are age adjusted annual averages over the four years 1997-2000. Total rates are directly standardised all ages rates.
Region B aggregates NSW, Vic, Tas, ACT.

Table B2.27 Deaths recorded as being other Australian females, Region B 1997-00: case counts and rates; selected External causes and age groups

External Cause of Injury	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	Total
	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts
Transport accidents	45	35	35	134	142	81	86	82	58	63	68	52	77	62	87	184	1,291
	3.0	2.2	2.3	8.6	8.7	4.4	4.9	4.4	3.3	3.9	4.7	4.6	8.0	6.9	10.1	11.5	5.1
Poisoning—drugs	3	0	4	57	116	130	125	117	157	98	70	60	22	31	25	52	1,067
	0.2	0.0	0.3	3.6	7.1	7.1	7.1	6.3	8.9	6.0	4.8	5.4	2.3	3.4	2.9	3.2	4.5
Suicide	0	0	6	74	110	136	139	136	140	108	103	66	62	56	47	90	1,273
	0.0	0.0	0.4	4.7	6.7	7.5	7.8	7.3	8.0	6.6	7.1	5.9	6.4	6.2	5.5	5.6	5.3
Fatal Assault	28	10	9	36	51	51	45	46	39	28	29	17	14	12	19	28	462
	1.9	0.6	0.6	2.3	3.1	2.8	2.5	2.5	2.2	1.7	2.0	1.5	1.5	1.3	2.2	1.7	2.0
Falls	5	5	3	1	4	4	3	7	5	10	14	12	10	43	82	1,486	1,694
	0.3	0.3	0.2	0.1	0.2	0.2	0.2	0.4	0.3	0.6	1.0	1.1	1.0	4.8	9.5	92.8	1.7

Rates (shaded) are age adjusted annual averages over the four years 1997-2000. Total rates are directly standardised all ages rates.
Region B aggregates NSW, Vic, Tas, ACT.

Table B2.28 All ages adjusted rates and CIs* by remoteness zones for Aboriginal and Torres Strait Islander and other Australian males, total External causes, Regions A and B 1997-00

Remoteness zone	Indigenous Region A		Indigenous Region B		Other Region A		Other Region B					
	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI			
Major cities	121.0	26.2	26.2	81.8	22.8	18.9	52.8	1.6	1.6	48.1	1.1	1.1
Inner regional	83.6	32.0	25.0	67.9	22.9	18.3	64.9	3.4	3.4	65.7	2.4	2.4
Outer regional	144.9	26.1	26.1	76.2	27.5	21.7	71.0	3.8	3.8	75.5	4.6	4.6
Remote	223.1	43.3	43.3	138.8	107.5	68.7	72.3	7.6	7.6	109.4	22.2	22.2
Very remote	200.7	26.6	26.6	113.5	139.9	73.6	66.3	10.0	10.0	122.4	66.4	47.5
Australia	161.7	13.4	13.4	79.2	12.1	12.1	59.1	1.3	1.3	54.1	1.0	1.0

*95% Confidence Intervals.

Table B2.29 All ages adjusted rates and CIs* by remoteness zones for Aboriginal and Torres Strait Islander and other Australian females, total External causes, Regions A and B 1997-00

Remoteness zone	Indigenous Region A		Indigenous Region B		Other Region A		Other Region B					
	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI			
Major cities	27.5	11.7	8.9	19.2	10.1	7.3	17.1	0.9	0.9	16.9	0.6	0.6
Inner regional	22.9	18.1	11.5	16.7	10.1	7.0	21.9	1.9	1.9	20.7	1.3	1.3
Outer regional	66.5	19.4	16.0	32.8	18.0	12.8	20.4	2.0	2.0	20.3	2.3	2.3
Remote	83.8	31.4	24.6	64.0	86.0	43.4	23.2	4.7	4.7	28.2	14.7	10.6
Very remote	83.0	16.8	16.8	107.6	264.6	92.9	18.1	7.4	5.7	23.8	43.2	18.5
Australia	61.2	7.9	7.9	24.8	6.9	5.8	18.8	0.7	0.7	18.0	0.5	0.5

*95% Confidence Intervals.

Table B2.30 All ages adjusted rates and CIs* by remoteness zones for Aboriginal and Torres Strait Islander and other Australian persons, total External causes, Regions A and B 1997-00

Remoteness zone	Indigenous Region A			Indigenous Region B			Other Region A			Other Region B		
	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI
Major cities	70.0	12.7	12.7	49.0	10.4	10.4	34.6	0.9	0.9	32.2	0.6	0.6
Inner regional	52.3	17.1	13.8	41.3	11.4	9.4	43.0	1.9	1.9	43.0	1.4	1.4
Outer regional	102.6	15.1	15.1	53.4	15.3	12.6	46.2	2.1	2.1	48.5	2.6	2.6
Remote	150.7	25.0	25.0	100.2	61.8	42.6	49.9	4.6	4.6	72.5	13.3	13.3
Very remote	141.3	15.6	15.6	111.4	125.0	68.7	47.0	6.5	6.5	78.1	38.6	28.3
Australia	109.0	7.6	7.6	50.8	6.5	6.5	38.8	0.8	0.8	35.9	0.6	0.6

*95% Confidence Intervals.

Table B2.31 All ages adjusted rates and CIs* by remoteness zones for Aboriginal and Torres Strait Islander and other Australian males, Transport, Regions A and B 1997–00

Remoteness zone	Indigenous Region A			Indigenous Region B			Other Region A			Other Region B		
	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI
Major cities	29.4	17.2	12.0	13.4	12.8	7.5	11.2	0.8	0.8	10.9	0.5	0.5
Inner regional	9.8	13.2	6.6	14.4	9.7	6.5	20.3	1.9	1.9	19.3	1.3	1.3
Outer regional	34.5	15.6	11.7	24.3	17.1	11.3	23.2	2.2	2.2	24.0	2.7	2.7
Remote	45.2	23.0	16.8	57.3	68.5	36.6	28.0	4.9	4.9	28.9	15.0	10.9
Very remote	71.9	18.6	15.6	0.0	..	..	25.5	7.6	6.2	37.1	45.6	24.0
Australia	43.6	7.1	7.1	17.1	6.3	4.9	15.5	0.7	0.7	13.6	0.5	0.5

*95% Confidence Intervals.

Table B2.32 All ages adjusted rates and CIs* by remoteness zones for Aboriginal and Torres Strait Islander and other Australian females, Transport, Regions A and B 1997–00

Remoteness zone	Indigenous Region A			Indigenous Region B			Other Region A			Other Region B		
	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI
Major cities	7.9	7.3	4.4	6.2	6.2	3.6	3.8	0.4	0.4	4.3	0.3	0.3
Inner regional	8.2	13.8	6.2	3.8	5.3	2.6	8.0	1.2	1.2	7.3	0.8	0.8
Outer regional	16.4	9.4	6.6	16.3	14.1	8.6	8.3	1.3	1.3	8.0	1.5	1.5
Remote	25.8	17.8	11.8	0.0	..	..	10.0	3.8	2.9	8.9	9.8	5.4
Very remote	19.8	8.5	6.5	0.0	..	..	6.4	5.3	3.3	0.0	..	..
Australia	15.4	4.0	3.3	7.1	3.7	2.7	5.5	0.4	0.4	5.2	0.3	0.3

*95% Confidence Intervals.

Table B2.33 All ages adjusted rates and CIs* by remoteness zones for Aboriginal and Torres Strait Islander and other Australian persons, Transport, Regions A and B 1997–00

Remoteness zone	Indigenous Region A			Indigenous Region B			Other Region A			Other Region B		
	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI
Major cities	17.7	8.1	6.0	9.8	6.5	4.4	7.4	0.4	0.4	7.6	0.3	0.3
Inner regional	9.3	8.7	5.2	9.0	5.1	3.6	14.1	1.1	1.1	13.3	0.8	0.8
Outer regional	24.9	8.3	6.6	20.4	10.3	7.5	15.9	1.3	1.3	16.2	1.6	1.6
Remote	35.3	13.6	10.6	28.8	34.3	18.3	19.8	3.0	3.0	19.9	8.9	6.7
Very remote	45.2	8.8	8.8	0.0	..	..	17.9	4.9	4.1	20.4	24.9	13.2
Australia	28.7	3.8	3.8	12.0	3.4	2.8	10.5	0.4	0.4	9.4	0.3	0.3

*95% Confidence Intervals.

Table B2.34 All ages adjusted rates and CIs* by remoteness zones for Aboriginal and Torres Strait Islander and other Australian males, Poisoning-drugs, Regions A and B 1997–00

Remoteness zone	Indigenous Region A			Indigenous Region B			Other Region A			Other Region B		
	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI
Major cities	11.0	9.0	5.6	19.5	9.9	7.2	5.1	0.5	0.5	6.3	0.4	0.4
Inner regional	4.8	12.9	4.3	10.8	9.2	5.7	4.7	1.1	0.9	4.9	0.7	0.7
Outer regional	6.8	7.3	4.1	10.7	13.1	6.9	3.2	0.9	0.8	2.8	1.1	0.8
Remote	9.2	12.2	6.2	0.0	..	..	2.9	1.9	1.3	1.2	5.5	1.2
Very remote	1.3	3.7	1.2	0.0	..	..	3.0	2.8	1.7	0.0	..	..
Australia	6.4	2.9	2.2	14.3	5.2	4.1	4.8	0.4	0.4	5.9	0.3	0.3

*95% Confidence Intervals.

Table B2.35 All ages adjusted rates and CIs* by remoteness zones for Aboriginal and Torres Strait Islander and other Australian females, Poisoning-drugs, Regions A and B 1997–00

Remoteness zone	Indigenous Region A			Indigenous Region B			Other Region A			Other Region B		
	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI
Major cities	6.7	7.2	4.0	3.8	5.2	2.6	2.0	0.3	0.3	2.4	0.2	0.2
Inner regional	5.9	11.3	4.7	4.4	6.9	3.2	1.6	0.6	0.5	2.0	0.5	0.4
Outer regional	1.9	3.8	1.5	2.0	9.2	2.0	1.2	0.6	0.4	0.8	0.6	0.4
Remote	0.0	..	..	0.0	..	..	1.5	1.7	0.9	2.5	7.0	2.2
Very remote	0.8	3.6	0.8	0.0	..	..	0.0	..	..	0.0	..	..
Australia	2.9	2.0	1.3	3.5	2.9	1.8	1.7	0.2	0.2	2.2	0.2	0.2

*95% Confidence Intervals.

**Table B2.36 All ages adjusted rates and CIs* by remoteness zones for Aboriginal and Torres Strait Islander and other Australian persons, Poisoning-
drugs, Regions A and B 1997–00**

Remoteness zone	Indigenous Region A			Indigenous Region B			Other Region A			Other Region B		
	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI
Major cities	8.7	5.2	3.6	11.2	5.1	3.8	3.5	0.3	0.3	4.3	0.2	0.2
Inner regional	5.5	7.4	3.7	7.6	5.2	3.4	3.1	0.5	0.5	3.4	0.4	0.4
Outer regional	4.1	3.5	2.2	6.1	6.7	3.7	2.2	0.5	0.4	1.8	0.6	0.5
Remote	4.4	5.9	3.0	0.0	..	..	2.3	1.2	0.9	1.7	3.5	1.4
Very remote	1.0	2.1	0.8	0.0	..	..	1.9	1.7	1.0	0.0	..	..
Australia	4.6	1.6	1.3	8.7	2.8	2.3	3.2	0.2	0.2	4.0	0.2	0.2

*95% Confidence Intervals.

Table B2.37 All ages adjusted rates and CIs* by remoteness zones for Aboriginal and Torres Strait Islander and other Australian males, Self-harm, Regions A and B 1997–00

Remoteness zone	Indigenous Region A			Indigenous Region B			Other Region A			Other Region B		
	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI
Major cities	33.0	13.5	10.4	19.5	10.7	7.6	22.8	1.1	1.1	18.6	0.7	0.7
Inner regional	36.8	22.9	15.8	19.0	11.8	8.1	24.5	2.1	2.1	26.4	1.6	1.6
Outer regional	43.6	14.7	11.8	17.1	15.6	9.4	25.0	2.2	2.2	26.9	2.8	2.8
Remote	78.6	28.2	22.3	33.6	98.3	30.4	23.1	4.3	4.3	30.5	13.5	10.2
Very remote	58.4	14.2	12.1	24.7	112.9	24.1	15.9	5.4	4.3	53.6	50.7	30.0
Australia	50.0	6.6	6.6	19.6	6.6	5.3	23.4	0.8	0.8	20.8	0.6	0.6

*95% Confidence Intervals.

Table B2.38 All ages adjusted rates and CIs* by remoteness zones for Aboriginal and Torres Strait Islander and other Australian females, Self-harm, Regions A and B 1997–00

Remoteness zone	Indigenous Region A			Indigenous Region B			Other Region A			Other Region B		
	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI
Major cities	7.9	6.8	4.2	4.9	7.8	3.6	5.8	0.5	0.5	5.3	0.4	0.4
Inner regional	4.5	12.0	4.0	4.4	6.8	3.2	5.7	1.0	1.0	5.6	0.7	0.7
Outer regional	12.3	7.7	5.3	1.2	5.6	1.2	4.8	1.1	0.9	5.0	1.3	1.1
Remote	6.9	11.2	5.1	20.1	92.1	19.6	3.8	2.4	1.6	6.2	9.1	4.4
Very remote	7.3	5.9	3.7	0.0	..	..	4.3	4.2	2.4	9.4	35.3	8.9
Australia	8.6	3.0	2.4	4.7	4.3	2.6	5.6	0.4	0.4	5.3	0.3	0.3

*95% Confidence Intervals.

Table B2.39 All ages adjusted rates and CIs* by remoteness zones for Aboriginal and Torres Strait Islander and other Australian persons, Self-harm, Regions A and B 1997–00

Remoteness zone	Indigenous Region A			Indigenous Region B			Other Region A			Other Region B		
	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI
Major cities	19.6	6.9	5.5	11.8	5.9	4.3	14.1	0.6	0.6	11.8	0.4	0.4
Inner regional	20.0	11.5	8.1	11.5	6.2	4.5	14.9	1.1	1.1	15.9	0.8	0.8
Outer regional	26.8	7.6	6.3	8.8	7.6	4.7	15.1	1.2	1.2	16.2	1.5	1.5
Remote	41.5	14.1	11.3	26.8	54.9	21.8	14.3	2.5	2.5	19.4	7.9	6.1
Very remote	32.9	7.5	6.4	12.1	55.5	11.8	11.3	3.5	2.9	33.6	28.9	17.8
Australia	28.4	3.4	3.4	11.9	3.6	3.0	14.4	0.5	0.5	13.0	0.3	0.3

*95% Confidence Intervals.

Table B2.40 All ages adjusted rates and CIs* by remoteness zones for Aboriginal and Torres Strait Islander and other Australian males, Fatal assault, Regions A and B 1997–00

Remoteness zone	Indigenous Region A			Indigenous Region B			Other Region A			Other Region B		
	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI
Major cities	8.5	8.7	5.0	8.3	6.9	4.3	2.1	0.3	0.3	2.2	0.2	0.2
Inner regional	6.2	13.1	5.1	7.2	8.5	4.6	1.8	0.7	0.5	1.9	0.5	0.4
Outer regional	12.3	9.9	6.2	9.9	13.2	6.7	2.1	0.8	0.6	2.0	0.9	0.7
Remote	20.8	17.9	11.0	32.8	63.2	26.1	1.9	1.5	1.0	5.8	8.3	4.1
Very remote	20.8	10.1	7.4	46.1	120.9	40.5	3.2	3.1	1.8	9.9	27.1	8.8
Australia	15.0	4.5	3.7	10.3	4.6	3.5	2.1	0.3	0.3	2.2	0.2	0.2

*95% Confidence Intervals.

Table B2.41 All ages adjusted rates and CIs* by remoteness zones for Aboriginal and Torres Strait Islander and other Australian females, Fatal assault, Regions A and B 1997–00

Remoteness zone	Indigenous Region A			Indigenous Region B			Other Region A			Other Region B		
	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI
Major cities	1.0	4.4	0.9	1.8	4.7	1.6	1.0	0.3	0.2	0.9	0.2	0.2
Inner regional	0.0	..	..	3.8	6.1	2.8	1.1	0.5	0.4	1.0	0.3	0.3
Outer regional	9.9	7.3	4.7	4.1	11.0	3.6	0.7	0.5	0.3	1.1	0.7	0.5
Remote	15.5	14.3	8.5	10.7	48.9	10.4	1.8	1.8	1.1	0.0	..	..
Very remote	23.7	10.2	7.7	0.0	..	..	2.1	3.4	1.6	0.0	..	..
Australia	11.6	3.6	2.9	3.6	3.1	1.9	1.0	0.2	0.2	0.9	0.1	0.1

*95% Confidence Intervals.

Table B2.42 All ages adjusted rates and CIs* by remoteness zones for Aboriginal and Torres Strait Islander and other Australian persons, Fatal assault, Regions A and B 1997–00

Remoteness zone	Indigenous Region A			Indigenous Region B			Other Region A			Other Region B		
	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI
Major cities	4.5	4.2	2.5	4.9	3.6	2.4	1.5	0.2	0.2	1.6	0.1	0.1
Inner regional	3.0	6.3	2.4	5.5	4.7	2.9	1.4	0.4	0.3	1.5	0.3	0.3
Outer regional	10.9	5.5	4.0	6.7	7.2	4.0	1.4	0.4	0.4	1.6	0.5	0.4
Remote	18.0	10.4	7.3	20.4	31.9	14.9	1.9	1.1	0.8	3.2	4.6	2.2
Very remote	22.3	6.8	5.6	23.6	61.6	20.7	2.8	2.1	1.3	5.6	15.1	5.0
Australia	13.3	2.5	2.5	6.8	2.6	2.0	1.6	0.2	0.2	1.6	0.1	0.1

*95% Confidence Intervals.

Table B2.43 All ages adjusted rates and CIs* by remoteness zones for Aboriginal and Torres Strait Islander and other Australian males, Falls, Regions A and B 1997-00

Remoteness zone	Indigenous Region A			Indigenous Region B			Other Region A			Other Region B		
	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI
Major cities	4.0	7.8	1.1	8.0	18.0	6.7	2.4	0.3	0.3	3.1	0.3	0.3
Inner regional	6.9	18.2	2.2	4.8	18.6	4.6	2.4	0.5	0.5	2.4	0.4	0.4
Outer regional	12.7	16.0	4.4	2.0	9.0	1.9	3.3	0.7	0.7	3.4	0.8	0.8
Remote	12.6	24.7	8.6	0.0	#	#	3.0	1.7	1.2	4.0	6.9	3.0
Very remote	4.5	9.0	2.3	0.0	#	65.4	2.4	2.1	1.3	3.5	6.6	2.7
Australia	7.5	5.0	2.1	5.2	7.7	1.6	2.6	0.2	0.2	3.0	0.2	0.2

*95% Confidence Intervals.

Table B2.44 All ages adjusted rates and CIs* by remoteness zones for Aboriginal and Torres Strait Islander and other Australian females, Falls, Regions A and B 1997-00

Remoteness zone	Indigenous Region A			Indigenous Region B			Other Region A			Other Region B		
	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI
Major cities	1.1	4.9	1.1	0.6	3.0	0.6	1.7	0.2	0.2	1.6	0.2	0.2
Inner regional	2.3	10.5	2.2	0.0	#	#	1.8	0.4	0.4	1.7	0.3	0.3
Outer regional	5.4	11.4	4.4	1.7	7.6	1.6	2.2	0.5	0.5	1.8	0.4	0.4
Remote	9.8	25.0	8.6	0.0	#	#	1.8	1.2	0.8	2.4	2.7	1.5
Very remote	3.6	4.5	2.3	67.1	306.9	65.4	0.8	1.9	0.7	0.0	#	#
Australia	4.0	3.4	2.1	2.0	3.8	1.6	1.8	0.2	0.2	1.7	0.1	0.1

*95% Confidence Intervals.

Table B2.45 All ages adjusted rates and CIs* by remoteness zones for Aboriginal and Torres Strait Islander and other Australian persons, Falls, Regions A and B 1997-00

Remoteness zone	Indigenous Region A			Indigenous Region B			Other Region A			Other Region B		
	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI	Rate	Upper CI	Lower CI
Major cities	2.3	3.5	1.6	3.9	7.3	3.0	2.1	0.2	0.2	2.4	0.1	0.1
Inner regional	4.4	8.4	3.5	2.0	7.7	1.9	2.1	0.4	0.3	2.1	0.2	0.2
Outer regional	8.7	8.3	4.9	1.8	4.8	1.6	2.8	0.5	0.4	2.6	0.5	0.5
Remote	11.2	15.0	7.6	0.0	#	#	2.5	1.2	0.8	3.4	3.6	2.0
Very remote	4.0	4.1	2.3	33.6	153.4	32.7	1.7	1.9	0.9	1.7	3.3	1.3
Australia	5.6	2.7	2.0	3.3	3.4	2.0	2.2	0.2	0.1	2.3	0.1	0.1

*95% Confidence Intervals.