

Trends in alcohol-attributable deaths among Indigenous Australians, 1998–2004

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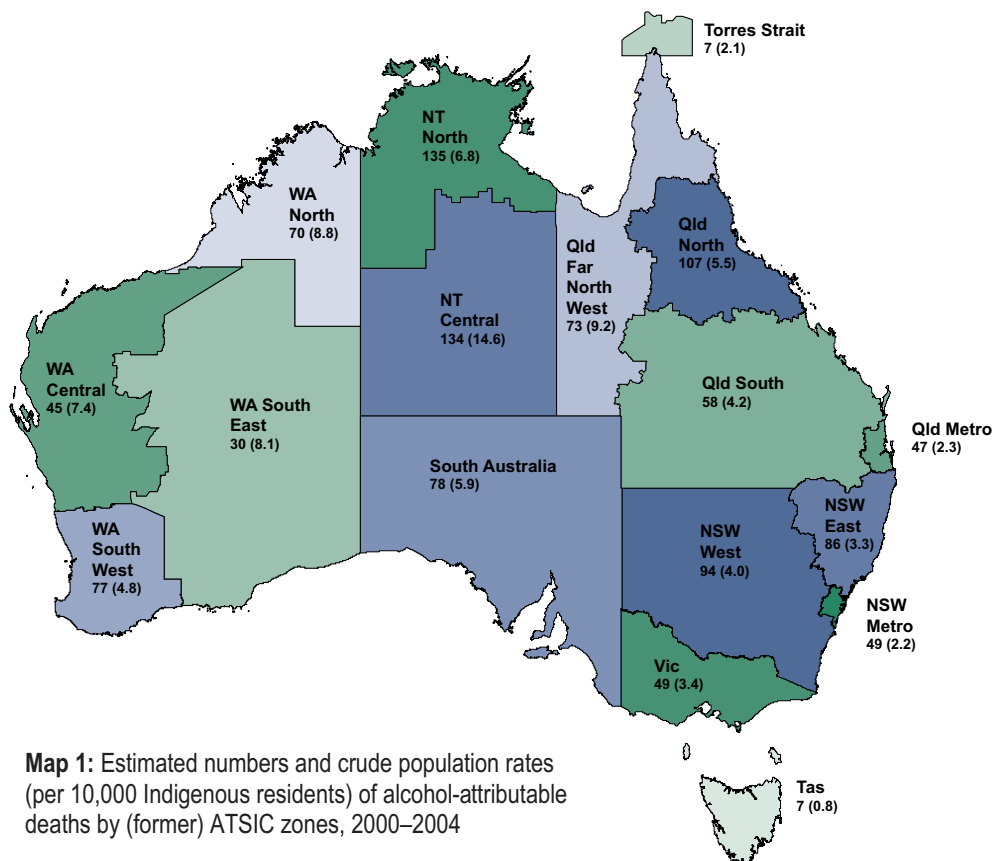
Summary Points

- Over the 5 year period from 2000 to 2004, an estimated 1,145 (4.85/10,000) Indigenous Australians died from alcohol-attributable injury and disease caused by drinking.
- Trends and numbers of alcohol-attributable deaths among Indigenous Australians vary widely both between and within jurisdictions.
- In 2004, Indigenous alcohol-attributable death rates in the Central NT (14/10,000), and WA North (10/10,000) were more than double the national rate of 4.17 per 10,000 for that year.
- Suicide (19%) and alcoholic liver cirrhosis (18%) account for almost 40% of all alcohol-attributable deaths among Indigenous men.
- Alcoholic liver cirrhosis (27%), haemorrhagic stroke (16%), and fatal injury caused by assault (10%) are the most common causes of alcohol-attributable death among Indigenous women.
- Average age at death from alcohol-attributable causes among Indigenous people is about 35 years.

Introduction

This is the first of a series of NAIP bulletins focusing upon indicators of alcohol consumption and related harms among Indigenous Australians. A major aim of the Indigenous NAIP is to document numbers of alcohol-attributable harms among Indigenous Australian populations within regional boundaries of relevance to Indigenous communities. This bulletin was preceded by a discussion paper which summarises the first Indigenous NAIP workshop at which a number of data related issues were identified and recommendations made including: appropriate regions for aggregation; quality; availability;

and, access [1]. Given the relatively small size of Indigenous populations and data access restrictions in particular (see [1]) it was recommended that wherever possible, levels of harms should be presented for each of the 17 ATSIC zones which are aggregates of smaller ATSIC regions. ATSIC regions have recently been replaced by Indigenous Co-ordination Centres and although some of the former ATSIC regions have been merged (e.g. Darwin and Jabiru; Perth and Narrogin; Ballarat and Wangaratta) they remain very similar to ATSIC regions.



Map 1: Estimated numbers and crude population rates (per 10,000 Indigenous residents) of alcohol-attributable deaths by (former) ATSIC zones, 2000–2004

Method

The aetiologic fraction method was used to estimate alcohol-attributable deaths [3]. Some deaths are entirely due to alcohol misuse (e.g. alcoholic liver cirrhosis). Other conditions are only partially attributable to drinking (e.g. road accidents). Raw numbers of deaths for each of the latter conditions were adjusted by specific 'alcohol aetiologic fractions' (AAF), which corresponded to the proportions of deaths in the population caused by low, risky or high risk drinking (as defined by NHMRC 2001). In keeping with WHO methods for estimating alcohol-attributable mortality for populations with predominantly problematic drinking patterns, possible lives saved from 'protective' effects of alcohol were not included [4]. AAFs are dependent on the prevalence of drinking in the population. The death rates reported in this bulletin were based on national Indigenous specific drinking prevalence estimates drawn from the 1994 *National Drug Strategy Household Survey Urban Aboriginal and Torres Strait Islander Peoples Supplement* 1994 [2]. Although dated, this survey represents the most accurate and reliable survey of Indigenous alcohol consumption to date [5]. It is critically important that estimates of alcohol-attributable deaths for Indigenous peoples be based on reliable, Indigenous specific consumption levels [5]. For a range of reasons (including differences in mean age at death and cause of death), meaningful comparisons between levels of Indigenous and non-Indigenous alcohol-attributable harms requires more than a cursory comparison of death rates. In order to minimise misinterpretation of data, non-Indigenous death rates have been purposely excluded from this bulletin.

Death rates

All rates are crude population rates representing numbers of lives lost from drinking (at any level) for every 10,000 Indigenous residents in each specified zone. Age standardised rates are preferable for comparing between populations, but have not been presented here. At the time of writing, five year cohort age-specific residential estimates by ATSIC zones for Indigenous persons were not available beyond 2001. Examination of the age distributions within estimated residential population (ERP) data suggests that Indigenous age profiles are similar across the zones and unlikely to substantially influence the comparability of trends over time.

Data Quality

Reliable information on Indigenous status from death records for all jurisdictions is only available from 1998. In most jurisdictions, less than 10% of all death records have an 'unknown' Indigenous status, however Indigenous peoples may be over-represented among these cases. Discrepancies between actual counts of deaths and expected deaths are smallest in WA, SA and the NT while Vic and NSW have the highest proportions 'unknown' deaths [1]. It is also likely that a proportion of deaths recorded as non-Indigenous are in fact Indigenous [1]. Alcohol-attributable deaths provided here should therefore be regarded as conservative estimates.

Trends in alcohol-attributable deaths by ATSIC zone

Trends and levels of alcohol-attributable deaths among Indigenous Australians vary widely from 1998 to 2004 and there are demonstrable differences within jurisdictions (Figure 1). Death rates in the northern and central zones of the NT appear to differ substantially, with central NT rates in 2004 higher than in 1998. By comparison, variability across the three zones within NSW is relatively small and death rates appear to have declined from 1998 to 2004. Death rates across Qld zones show marked decline. Trends across WA are less encouraging with notable increases in the north and central zones

since 2001. Numbers of Indigenous deaths in Tasmania are comparatively small (due to small ERP) but have gradually increased since 1998. The Torres Strait zone exhibits one of the most marked declines in Indigenous alcohol-attributable deaths.

Chronic and Acute Conditions

Table 2 provides separate estimates for deaths caused by acute and chronic conditions. Alcohol-related conditions listed as chronic are generally those which result from long-term misuse of alcohol (e.g. liver cancer) those listed as acute tend to result from bouts of intoxication (e.g. assault) [see 6 for details]. The proportion of all deaths attributable to acute and chronic conditions varies each year. In 2000 some 60% of all deaths were from acute conditions, while in 2004 the number of deaths from the same conditions accounted for less than 50%.

Common causes of alcohol-attributable death

The most common causes of death due to drinking for male and female Indigenous Australians are shown in Table 1. Suicide (19%) and alcoholic liver cirrhosis (18%) are the two most common causes of alcohol-attributable death among males. For females, alcoholic liver cirrhosis (28%) is the most common single cause of alcohol-attributable death. The average age at death from the most common alcohol-attributable conditions is 35 for males and 34 for females.

Table 1: Five most common causes of alcohol-attributable death among Indigenous males and females *Based on aggregates from 1998–2004*

Condition	n	%	Mean age at death
Males			
1 Suicide	222	19	29
2 Alcoholic liver cirrhosis	210	18	56
3 Road traffic injury	87	7	30
4 Assault injury	70	6	34
5 Haemorrhagic stroke	60	5	27
Total	649	56	35
Females			
1 Alcoholic liver cirrhosis	136	28	51
2 Haemorrhagic stroke	78	16	25
3 Assault injury	48	10	32
4 Suicide	33	7	27
5 Road traffic injury	18	4	36
Total	313	65	34

More information

Further information on Indigenous alcohol-related harms from the NAIP series can be found in Bulletins 2 & 7.

References

[1] Chikritzhs, T., Gray, D., Stockwell, T., et al. (2004). *Applying national indicators of alcohol-related harms to Indigenous Australians: a discussion paper*. Perth: National Drug Research Institute, Curtin University of Technology.

[2] Commonwealth Department of Human Services and Health (1996). *National Drug Strategy Household Survey Urban Aboriginal and Torres Strait Islander Peoples Supplement* 1994. Canberra: Australian Government Publishing Service.

[3] English, D., Holman, C., Milne, E., et al. (1995). *The quantification of drug caused morbidity and mortality in Australia, 1995*. Canberra: Commonwealth Department of Human Services and Health.

[4] Rehm, J., Room, R., Monteiro, M. et al. (2004) Alcohol use. In: Ezzati M, Lopez AD, Rodgers A, Murray C J L, eds. *Comparative Quantification of Health Risks. Global and Regional Burden of Disease Attributable to Selected Major Risk Factors*. Volume 1. Geneva: World Health Organization: 959-1108.

[5] Chikritzhs, T. & Brady, M. (2006). Fact or fiction? A critique of the National Aboriginal and Torres Strait Islander Social Survey, 2002. *Drug and Alcohol Review*, 25: 277-287.

[6] Chikritzhs, T., Catalano, P., Stockwell, T. et al. (2003). *Australian Alcohol Indicators, 1990-2001: patterns of alcohol use and related harms for Australian states and territories*. Perth: National Drug Research Institute, Curtin University of Technology.

Figure 1: Indigenous alcohol-attributable deaths per 10,000 Indigenous residents by ATSI zones, 1998–2004

